Diagnosis of somatic symptom disorder may be given to people who are overly anxious about their medical problems (page 324). Clinicians no longer need to distinguish hysterical symptoms from medical symptoms.

Diagnosis of major depressive disorder may be given to recently bereaved people (page 250). Clinicians can more quickly spot and treat clinical depression among grieving people. People experiencing normal grief reactions may receive a psychiatric diagnosis.

Diagnosis of Asperger’s disorder has been eliminated (page 589). The new category substance use disorder combines substance abuse and substance dependence into one disorder (pages 382, 421).

WHO DEVELOPED DSM-5?

Field Testing DSM-5
From 2010 to 2012, DSM-5 researchers conducted field studies to see how well clinicians could apply the new criteria. Disorders tested: 23 Clinical participants: 3,646 Clinicians: 879 (APA, 2013; Clarke et al., 2013; Regier et al., 2013)

Task force (oversight committee)
30 persons

Work groups (pathology groups)
160 persons
12 persons per group

Two-thirds of the DSM-5 work group members were psychiatrists and one-third were psychologists. (APA, 2013)

TOP DSM-5 DEBATES
Many of the DSM-5 changes have provoked debate. Several have been particularly controversial in some clinical circles.

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WHEN IS THE DSMSBOSM-5? DSM-5 features a number of changes, new categories, and eliminations. Many of the changes have been controversial.

Diagnosis of somatic symptom disorder may be given to people who are overly anxious about their medical problems (page 328). Diagnosis of major depressive disorder may be given to recently bereaved people (page 250). Previous category of Asperger’s disorder has been eliminated (page 589).

Both within North America and around the world, the DSM faces competition from 2 other diagnostic systems—the International Classification of Disorders (ICD) and Research Domain Criteria (RDoC).
Gambling disorder is considered an addiction (page 419).

**PRO** Excessive gambling and substance addictions often share similar brain dysfunctioning.

**CON** Many other behaviors pursued excessively, such as sex, Internet use, and shopping, could eventually be considered behavioral addictions.

Mild neurocognitive disorder is added as a category (page 623).

**PRO** This diagnosis may help clinicians identify early symptoms of Alzheimer’s disease.

**CON** People with normal age-related forgetfulness may receive a psychiatric diagnosis.
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Abnormal Psychology
To Mimi Melek,
Development editor extraordinaire
RONALD J. COMER has been a professor in Princeton University’s Department of Psychology for the past 40 years, serving also as director of Clinical Psychology Studies and, currently, as chair of the university’s Institutional Review Board. His courses—Abnormal Psychology, Theories of Psychotherapy, Childhood Psychopathology, Experimental Psychopathology, and Controversies in Clinical Psychology—have been among the university’s most popular offerings.

Professor Comer has received the President’s Award for Distinguished Teaching at the university. He is also a practicing clinical psychologist and consultant to Eden Autism Services and to hospitals and family practice residency programs throughout New Jersey.

In addition to writing *Abnormal Psychology*, Professor Comer is the author of the textbook *Fundamentals of Abnormal Psychology*, now in its seventh edition; coauthor of the introductory psychology textbook *Psychology Around Us* (second edition); and coauthor of *Case Studies in Abnormal Psychology* (second edition). He is the producer of numerous videos for courses in psychology and other fields of education, including *The Higher Education Video Library Series, Video Anthology for Abnormal Psychology, Video Segments in Neuroscience, Introduction to Psychology Video Clipboard*, and *Developmental Psychology Video Clipboard*. He also has published journal articles in clinical psychology, social psychology, and family medicine.

Professor Comer completed his undergraduate studies at the University of Pennsylvania and his graduate work at Clark University. He lives in Lawrenceville, New Jersey, with his wife, Marlene. From there he can keep a close eye on the Philadelphia sports teams with which he grew up.
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It was the spring of 1981. Over the previous eight months, the Philadelphia Phillies had won the World Series, and the Eagles, Sixers, and Flyers had made it to the Super Bowl, NBA Finals, and Stanley Cup Finals, respectively. I had two adorable children aged 5 and 3. I had been granted tenure at Princeton. My life was full—or so I thought.

Then, Linda Chaput, at that time an editor at W. H. Freeman and Company and Worth Publishers, walked into my office. During a lively discussion, she and I discovered that we had similar ideas about how abnormal psychology should be presented in a textbook. By the time Linda departed 2 hours later, we had outlined the principles that should underlie the “ideal” abnormal psychology textbook. We had, in effect, a deal. All that was left was for me to write the book. A decade later, the first edition of *Abnormal Psychology* (“the BOOK,” as my family and I had come to call it) was published.

As I look back to that fateful day in 1981, I cannot help but note that several things have changed. With a few exceptions, my Philadelphia sports teams have returned to form and struggled year in, year out. My sons have become accomplished middle-aged men, and their previous “adorable” tag is now worn by my 1-year-old and 3-year-old grandchildren, Emmett and Delia. I am older, humbler, and a bit more fatigued than the person who met with Linda Chaput 34 years ago.

At the same time, several wonderful things remain the same. I am still at Princeton University. I am still married to the same near-perfect person—Marlene Comer. And I still have the privilege of writing abnormal psychology textbooks—*Abnormal Psychology* and *Fundamentals of Abnormal Psychology*. The current version, *Abnormal Psychology*, Ninth Edition, represents my seventeenth edition of one or the other of the textbooks.

My textbook journey has been a labor of love, but I also must admit that each edition requires enormous effort, ridiculous pressure, and too many sleepless nights to count. I mention these labors not only because I am a world-class whiner but also to emphasize that I approach each edition as a totally new undertaking rather than as a cut-and-paste update of past editions. I work feverishly to make each edition fresh and to include innovative and enlightening pedagogical techniques.

With this in mind, I have added an enormous amount of new material and many exciting new features for this edition of *Abnormal Psychology*—while at the same time retaining the successful themes, material, and techniques that have been embraced enthusiastically by past readers. The result is, I believe, a book that will excite readers and speak to them and their times. I have again tried to convey my passion for the field of abnormal psychology, and I have built on the generous feedback of my colleagues in this undertaking—the students and professors who have used this textbook over the years.

### New and Expanded Features

In line with the many changes that have occurred over the past several years in the fields of abnormal psychology, education, and publishing, and in the world, I have brought the following new features and changes to the current edition.

- **NEW** DSM-5 With the publication of DSM-5, abnormal psychology is clearly a field in transition. To help students appreciate the field’s current status and new directions, I present, integrate, and analyze DSM-5 material throughout the textbook. Controversy aside, this is now the field’s classification and diagnostic system, and it is important that
readers understand and master its categories and criteria, appreciate its strengths and weaknesses, and recognize its assumptions and implications, just as past readers learned about the categories, quality, and implications of previous DSM editions.

DSM-5, as well as discussions of its implications and controversial nature, is presented in various ways throughout my textbook. First, its new categories, criteria, and information are woven smoothly into the narrative of each and every chapter. Second, reader-friendly pedagogical tools throughout the textbook, including a two-page infographic on the inside front cover and regular short features called *Dx Checklist* and *DSM-5 Controversy*, help students fully grasp the DSM-5 material. Third, special topic boxes highlight DSM-5 issues and controversies, such as *Premenstrual Dysphoric Disorder: Déjà Vu All Over Again* (page 238) and *What Happened to Asperger's Disorder?* (page 589).

**NEW• REORGANIZATION OF TWO KEY CHAPTERS** Two chapters in this new edition of *Abnormal Psychology* have been restructured, partly to be consistent with certain DSM-5 changes, but more important because this reorganization helps the material to unfold in a more logical way for readers. All psychological disorders in which somatic symptoms are key features are now grouped together in Chapter 10, *Disorders Featuring Somatic Symptoms*. This chapter includes *factitious disorder, conversion disorder, somatic symptom disorder, illness anxiety disorder, and psychological factors affecting other medical conditions*. Psychological disorders that are triggered by extraordinary trauma and stress are now grouped together in Chapter 6, *Disorders of Trauma and Stress*. This chapter includes the *trauma- and stressor-related disorders (acute stress disorder, posttraumatic stress disorder, and adjustment disorders) and the dissociative disorders (dissociative amnesia, dissociative identity disorder, and depersonalization-derealization disorder).*

**NEW• TECHNOLOGY AND THE MINDTECH FEATURE** The breathtaking rate of technological change that characterizes today’s world has had significant effects on the mental health field. In this edition I cover this impact extensively in many discussions in the book’s narrative, boxes, photographs, and figures. The book examines, for example, how the Internet, texting, and social networks have become convenient tools for those who wish to bully others or pursue pedophilic desires (pages 565–566, 576); how social networking may provide a new source for social anxiety (page 155); and how today’s technology has helped create new psychological disorders such as Internet addiction (pages 420, 660–662). It also looks at dangerous new trends such as the posting of self-cutting videos on the Internet (page 288). And it informs the reader about *cybertherapy* in its ever-expanding forms—from Skype therapy to avatar therapy to virtual reality treatments (pages 75, 84, 193).

I have added a new feature throughout the book called *MindTech*—sections in each chapter that give special attention to particularly provocative technological trends in engaging and enlightening ways. The *MindTech* features examine the following cutting-edge topics:

- Mental Health Apps Explode in the Marketplace (page 24)
- A Researcher’s Paradise? (page 35)
- Have Your Avatar Call My Avatar (page 84)
- Psychology’s Wiki Leaks? (page 103)
- Social Media Jitters (page 155)
- Virtual Reality Therapy: Better than the Real Thing? (page 193)
- Texting: A Relationship Buster? (page 230)
- Mood Tracking (page 260)
- Crisis Texting (page 310)
- Can Social Media Spread “Mass Hysteria”? (page 323)
NEW INFOCENTRALS: It is impossible to surf the Internet, watch TV, or flip through a magazine without coming across infographics, those graphic representations that present complex data in quick, stimulating, and visually appealing ways. Infographics present information in a way that allows us to easily recognize trends and patterns and make connections between related concepts. With the development of new digital tools over the past decade, the popularity of infographics has exploded. Readers and viewers like them and learn from them.

Thus Abnormal Psychology, Ninth Edition, introduces a new feature called InfoCentral—numerous, lively infographics on important topics in the field. The infographics provide visual representations of data related to key topics and concepts in each chapter, offering fascinating snippets of information to spur the readers’ interest. I am certain that readers will greatly enjoy these special offerings, while also learning from them.

Every chapter features a full-page InfoCentral, including the following ones:

- Inside DSM-5 (inside front cover)
- Happiness (page 21)
- Research Pitfalls (page 45)
- Drug Approval (page 61)
- Common Factors in Therapy (page 124)
- Mindfulness (page 140)
- Sexual Assault (page 186)
- Sadness (page 249)
- Dietary Supplements: An Alternative Treatment (page 264)
- The Right to Commit Suicide (page 308)
- Sleep and Sleep Disorders (page 334)
- Body Dissatisfaction (page 357)
- Smoking, Tobacco, and Nicotine (page 394)
- Sex Throughout the Life Cycle (page 427)
- Hallucinations (page 473)
- Institutions for Psychological Care (page 498)
- Lying (page 557)
- Child and Adolescent Bullying (page 566)
- The Aging Population (page 613)
- Personal and Professional Issues (page 665)
NEW • ADDITIONAL “CUTTING EDGE” BOXES I have grouped the book’s other boxes into two categories: PsychWatch boxes examine text topics in more depth, emphasize the effect of culture on mental disorders and treatment, and explore examples of abnormal psychology in movies, the news, and the real world. MediaSpeak boxes offer provocative pieces by news, magazine, and Web writers and bloggers on current issues in abnormal psychology. In addition to updating the PsychWatch and MediaSpeak boxes that have been retained from the previous edition, I have added many new ones. For example, new MediaSpeak boxes include the following:

• Immigration and the Mentally Ill in the 21st Century (Chapter 1)
• Flawed Study, Gigantic Impact (Chapter 2)
• Saving Minds Along with Souls (Chapter 3)
• The Fear Business (Chapter 5)
• When Doctors Discriminate (Chapter 10)
• Putting Delusions to Use (Chapter 14)

NEW • CLINICAL CHOICES INTERACTIVE CASE STUDIES This ninth edition of Abnormal Psychology includes 11 new interactive case studies (one for each of the disorders chapters), available online through LaunchPad, our online course-management system. Through an immersive mix of video, audio, and assessment, each interactive case allows the student to simulate the thought process of a clinician by identifying and evaluating a virtual “client’s” symptoms, gathering information about the client’s life situation and family history, determining a diagnosis, and formulating a treatment plan. The student will also answer various questions about each case to help reinforce the chapter material. Each answer will trigger feedback, guidance, and critical thinking in an active-learning environment.

NEW • ADDITIONAL AND EXPANDED TEXT SECTIONS Over the past few years, a number of topics in abnormal psychology have received special attention. In this edition, I have provided new sections on such topics, including the psychology of mass killings (page 534); the impact of the Affordable Care Act (pages 22, 659); the growing role of IRBs (pages 49–51); dimensional diagnoses (pages 520–522); new treatments in the field (pages 44, 260, 506); spirituality and mental health (page 79); overuse or misuse of certain diagnoses (pages 212, 522); the psychological price of celebrity (pages 229, 295–296); transgender issues (pages 456–457); alternative views of personality disorders (pages 555–559); imprisonment and psychological functioning (page 644); self-injury (page 288); the pro-Ana movement (page 361); poor medical treatment for people with psychological disorders (page 340); culture and abnormality (pages 116, 554–555); race and the clinical field (page 132); and sexism in the clinical field (pages 238, 443).

NEW • NEW CASE MATERIAL One of the hallmarks of my textbooks is the inclusion of numerous and culturally diverse clinical examples that bring theoretical and clinical issues to life. In my continuing quest for relevance to the reader and to today’s world, I have replaced or revised more than one-third of the clinical material in this edition. The new clinical material includes the cases of Franco, major depressive disorder (pages 97, 100, 113, 120); Tonya, Munchausen syndrome by proxy (page 320); Meri, major depressive disorder (page 217); Eduardo, paranoid personality disorder (pages 522–523), Luisa, dissociative personality disorder (page 200); Kay, bipolar disorder (page 278); Shani, anorexia nervosa (page 352); Ricky, ADHD (pages 563–564); Lucinda, histrionic personality disorder (pages 541–542); Jonah, separation anxiety disorder (pages 567–568); Sam, voyeuristic disorder (page 451); and many others.

NEW • CRITICAL THOUGHT QUESTIONS The “critical thought questions” were a very stimulating feature of my previous edition of Abnormal Psychology. These
questions pop up within the text narrative, asking students to pause at precisely the right moment and think critically about the material they have just read. Given the enthusiastic response to this feature by professors and readers alike, I have added many new critical thought questions throughout the textbook, including in every MindTech and MediaSpeak feature.

**NEW** • **“BETWEEN THE LINES”** The textbook not only retains but expands a fun and thought-provoking feature from past editions that has been very popular among students and professors—the reader-friendly elements called Between the Lines, which consist of text-relevant tidbits, surprising facts, current events, historical notes, interesting trends, and enjoyable lists and quotes.

**NEW** • **THOROUGH UPDATE** In this edition I present the most current theories, research, and events, including more than 2,000 new references from the years 2012–2014, as well as hundreds of new photos, tables, and figures.

**EXPANDED COVERAGE** • **PREVENTION AND MENTAL HEALTH PROMOTION** In accord with the clinical field’s growing emphasis on prevention, positive psychology, and psychological wellness, I have increased significantly the textbook’s attention to these important approaches (for example, pages 19–21).

**EXPANDED COVERAGE** • **MULTICULTURAL ISSUES** Over the past 30 years, clinical theorists and researchers increasingly have become interested in ethnic, racial, gender, and other cultural factors, and my previous editions of *Abnormal Psychology* certainly have included these important factors. In the twenty-first century, however, the study of such factors has, appropriately, been elevated to a broad perspective—the *multicultural perspective*. Consistent with this clinical movement, the current edition includes yet additional multicultural material and research throughout the text. Even a quick look through the pages of this textbook will reveal that it truly reflects the diversity of our society and of the field of abnormal psychology.

**EXPANDED COVERAGE** • **“NEW WAVE” COGNITIVE AND COGNITIVE-BEHAVIORAL THEORIES AND TREATMENTS** The current edition of *Abnormal Psychology* has expanded its coverage of the “new wave” cognitive and cognitive-behavioral theories and therapies, including *mindfulness-based cognitive therapy* and *Acceptance and Commitment Therapy* (ACT), presenting their propositions, techniques, and research in chapters throughout the text (for example, pages 74, 139, 261, 343).

**EXPANDED COVERAGE** • **NEUROSCIENCE** The twenty-first century has witnessed the continued growth and impact of remarkable brain-imaging techniques, genetic mapping strategies, and other neuroscience approaches, all of which are expanding our understanding of the brain. Correspondingly, the new edition of *Abnormal Psychology* has further expanded its coverage of how biochemical factors, brain structure, brain function, and genetic factors contribute to abnormal behavior (for example, pages 57–60, 143, 222–226).

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**Continuing Strengths**

As I noted earlier, in this edition I have also retained the themes, material, and techniques that have worked successfully and been embraced enthusiastically by past readers.

**BREADTH AND BALANCE** The field’s many theories, studies, disorders, and treatments are presented completely and accurately. All major models—psychological, biological, and sociocultural—receive objective, balanced, up-to-date coverage, without bias toward any single approach.
INTEGRATION OF MODELS Discussions throughout the text, particularly those headed “Putting It Together,” help students better understand where and how the various models work together and how they differ.

EMPATHY The subject of abnormal psychology is people—very often people in great pain. I have tried therefore to write always with empathy and to impart this awareness to students.

INTEGRATED COVERAGE OF TREATMENT Discussions of treatment are presented throughout the book. In addition to a complete overview of treatment in the opening chapters, each of the pathology chapters includes a full discussion of relevant treatment approaches.

RICH CASE MATERIAL As I mentioned earlier, the textbook features hundreds of culturally diverse clinical examples to bring theoretical and clinical issues to life. More than 25 percent of the clinical material in this edition is new or revised significantly.

MARGIN GLOSSARY Hundreds of key words are defined in the margins of pages on which the words appear. In addition, a traditional glossary is available at the back of the book.

“PUTTING IT TOGETHER” A section toward the end of each chapter, “Putting It Together,” asks whether competing models can work together in a more integrated approach and also summarizes where the field now stands and where it may be going.

FOCUS ON CRITICAL THINKING The textbook provides tools for thinking critically about abnormal psychology. As I mentioned earlier, in this edition, “critical thought” questions appear at carefully selected locations within the text discussions. The questions ask readers to stop and think critically about the material they have just read.

STRIKING PHOTOS AND STIMULATING ILLUSTRATIONS Concepts, disorders, treatments, and applications are brought to life for the reader with stunning photographs, diagrams, graphs, and anatomical figures. All of the figures, graphs, and tables, many new to this edition, reflect the most up-to-date data available. The photos range from historical to today’s world to pop culture. They do more than just illustrate topics: they touch and move readers.

ADAPTABLE Chapters are self-contained, so they can be assigned in any order that makes sense to the professor.

Supplements

I have been delighted by the enthusiastic responses of both professors and students to the supplements that accompany my textbooks. This edition offers those supplements once again, revised and enhanced, and adds a number of exciting new ones.

FOR PROFESSORS

WORTH VIDEO COLLECTION FOR ABNORMAL PSYCHOLOGY Produced and edited by Ronald J. Comer, Princeton University, and Gregory Comer, Princeton Academic Resources. Faculty Guide included. This incomparable video series offers 132 clips that depict disorders, show historical footage, and illustrate clinical topics, pathologies, treatments, experiments, and dilemmas. Videos are available in LaunchPad and on the Video Collection for Abnormal Psychology flash drive. I also have written
an accompanying guide that fully describes and discusses each video clip, so that professors can make informed decisions about the use of the segments in lectures.

**INSTRUCTOR’S RESOURCE MANUAL** by Danielle Gunraj, SUNY Binghamton. This comprehensive guide ties together the ancillary package for professors and teaching assistants. The manual includes detailed chapter outlines, lists of principal learning objectives, ideas for lectures, discussion launchers, classroom activities, extra credit projects, and DSM criteria for each of the disorders discussed in the text. It also offers strategies for using the accompanying media, including the video collection. Finally, it includes a comprehensive set of valuable materials that can be obtained from outside sources—items such as relevant feature films, documentaries, teaching references, and Internet sites related to abnormal psychology.

- **Lecture Slides** available at: http://www.macmillanhighered.com/Catalog/product/abnormalpsychology-ninthedition-comer. These slides focus on key concepts and themes from the text and can be used as is or customized to fit a professor’s needs.

- **Illustration Slides** available at http://www.macmillanhighered.com/Catalog/product/abnormalpsychology-ninthedition-comer. These slides, featuring all chapter photos and illustrations, can be used as is or customized to fit a professor’s needs.

- **Chapter Figures, Photos and Tables** available at http://www.macmillanhighered.com/Catalog/product/abnormalpsychology-ninthedition-comer. This collection gives professors access to all of the photographs, illustrations, and tables from *Abnormal Psychology, Ninth Edition*.

**ASSESSMENT TOOLS**

**TEST BANK** by Julie Garner. A comprehensive Test Bank offers more than 2,200 multiple-choice, fill-in-the-blank, and essay questions. Each question is graded according to difficulty, the Bloom’s level is identified, and keyed to the topic and page in the text where the source information appears.

**DIPLOMA ONLINE COMPUTERIZED TEST BANK** Available for both Windows and Macintosh, at http://www.macmillanhighered.com/Catalog/product/abnormalpsychology-ninthedition-comer. This downloadable Test Bank guides professors step by step through the process of creating a test and allows them to add an unlimited number of questions, edit or scramble questions, format a test, and include pictures and multimedia links. The accompanying grade book enables them to record students’ grades throughout the course and includes the capacity to sort student records and view detailed analyses of test items, to curve tests, to generate reports, to add weights to grades, and more. These Test Bank files also provide tools for converting the Test Bank into a variety of useful formats as well as Blackboard- and WebCT-formatted versions of the Test Bank for *Abnormal Psychology, Ninth Edition*.

**FOR STUDENTS**

**CASE STUDIES IN ABNORMAL PSYCHOLOGY, SECOND EDITION,** by Ethan E. Gorenstein, Behavioral Medicine Program, New York–Presbyterian Hospital, and Ronald J. Comer, Princeton University. This new edition of our popular case study book provides 20 case histories—all of them updated and several of them brand new—each going beyond DSM diagnoses to describe the individual’s history and symptoms, a theoretical discussion of treatment, a specific treatment plan, and the actual treatment conducted. The casebook also provides three cases without diagnoses or treatment so that students can identify disorders and suggest appropriate therapies. Wonderful case material, particularly for somatic symptom disorder, hoarding disorder, and gender dysphoria, has been added for this edition by Danae Hudson and Brooke Whisenhunt, professors at Missouri State University.
LAUNCHPAD WITH LEARNINGCURVE QUizzING—MULTIMEDIA TO SUPPORT TEACHING AND LEARNING Available at www.launchpadworks.com

A comprehensive Web resource for teaching and learning psychology, LaunchPad combines Worth Publishers’ award-winning media with an innovative platform for easy navigation. For students, it is the ultimate online study guide, with rich interactive tutorials, videos, an e-Book, and the LearningCurve adaptive quizzing system. For instructors, LaunchPad is a full-course space where class documents can be posted, quizzes can be easily assigned and graded, and students’ progress can be assessed and recorded. Whether you are looking for the most effective study tools or a robust platform for an online course, LaunchPad is a powerful way to enhance your class.

LaunchPad to Accompany Abnormal Psychology, Ninth Edition, can be previewed at www.launchpadworks.com. Abnormal Psychology, Ninth Edition, and LaunchPad can be ordered together with:

ISBN-10: 1-319-01711-8

LaunchPad for Abnormal Psychology, Ninth Edition, includes the following resources:

- The LearningCurve quizzing system was designed based on the latest findings from learning and memory research. It combines adaptive question selection, immediate and valuable feedback, and a game-like interface to engage students in a learning experience that is unique to each student. Each LearningCurve quiz is fully integrated with other resources in LaunchPad through the Personalized Study Plan, so students will be able to review with Worth’s extensive library of videos and activities. And state-of-the-art question-analysis reports allow instructors to track the progress of individual students as well as that of their class as a whole.

- An interactive e-Book allows students to highlight, bookmark, and make their own notes, just as they would with a printed textbook.

- Clinical Choices, authored by Taryn Myers, Virginia Wesleyan College. In these 11 interactive case studies in LaunchPad, students simulate the role of clinical psychologist, engaging with virtual clients to identify psychological disorders (based on DSM-5 criteria) and think critically about diagnosis and treatment options.

- Abnormal Psychology Video Activities, produced and edited by Ronald J. Comer, Princeton University, and Gregory Comer, Princeton Academic Resources. These intriguing video cases run 3 to 7 minutes each and focus on people affected by disorders discussed in the text. Students first view a video case and then answer a series of thought-provoking questions about it.

- Deep integration is available between LaunchPad products and Blackboard, Brightspace by Desire2Learn, Canvas, and Moodle. These deep integrations offer educators single sign-on and grade book sync, now with auto-refresh. Also, these best-in-class integrations offer deep linking to all Macmillan digital content at the chapter and asset level, giving professors ultimate flexibility and customization capability within their learning management system.

COURSE MANAGEMENT

COURSE MANAGEMENT SOLUTIONS: SUPERIOR CONTENT, ALL IN ONE PLACE Available for WebCT, Blackboard, Desire2Learn, Moodle, Sakai, and Angel, at http://www.macmillanhighered.com/Catalog/product/abnormalpsychology-ninthedition-comer. For instructors, our course cartridge includes the complete Test Bank, lecture slides, illustration slides, chapter figures, photos, and tables and the complete Instructor's Resource Manual. For students, we offer interactive flash cards and quizzes.
I am very grateful to the many people who have contributed to writing and producing this book. I particularly thank Marlene Comer for her usual outstanding work on the manuscript. In addition, I am indebted to Marlene Glissmann for her fast, furious, and fantastic work on the references. And I sincerely appreciate the superb work of the book’s assistants—actually collaborators—Greg Comer and Jon Comer.

I am indebted greatly to those outstanding academicians and clinicians who have provided feedback on this new edition of *Abnormal Psychology*, along with that of its partner, *Fundamentals of Abnormal Psychology*, and have commented with great insight and wisdom on its clarity, accuracy, and completeness. Their collective knowledge has in large part shaped the current edition: David Alfano, Community College of Rhode Island; Jeffrey Armstrong, Northampton Community College; Wendy Bartkus, Albright College; Jennifer Bennett, University of New Mexico; Christine Browning, Victory University; Megan Davies, NOVA, Woodbridge Campus; Pernella Deams, Grambling State University; Frederick Ernst, University of Texas, Pan American; Jessica Goodwin Jolly, Gloucester County College; Abby Hill, Trinity International University; Tony Hoffman, University of California, Santa Cruz; Craig Knapp, College of St. Joseph; Sally Kuhlenenschmidt, Western Kentucky University; Paul Lewis, Bethel College; Gregory Mallis, University of Indianapolis; Taryn Myers, Virginia Wesleyan College; Edward O’Brien, Marywood University; Mary Pelton-Cooper, Northern Michigan University; Ginger Pope, South Piedmont Community College; Lisa Riley, Southwest Wisconsin Technical College; Ty Schepis, Texas State University; and Elizabeth Seebach, Saint Mary’s University of Minnesota.

Earlier I also received valuable feedback from academicians and clinicians who reviewed portions of the previous editions of *Abnormal Psychology* and *Fundamentals of Abnormal Psychology*. Certainly their collective knowledge has also helped shape this new edition, and I gratefully acknowledge their important contributions: Christopher Adams, Fitchburg State University; Dave W. Alfano, Community College of Rhode Island; Alisa Aston, University of North Florida; Kent G. Bailey, Virginia Commonwealth University; Stephanie Baralecki, Chestnut Hill College; Sonja Barcus, Rochester College; Marna S. Barnett, Indiana University of Pennsylvania; Jillian Bennett, University of Massachusetts Boston; Otto A. Berliner, Alfred State College; Allan Berman, University of Rhode Island; Douglas Bernstein, University of Toronto, Mississauga; Sarah Bing, University of Maryland Eastern Shore; Greg Bolich, Cleveland Community College; Stephen Brasel, Moody Bible Institute; Conrad Brombach, Christian Brothers University; Barbara Brown, Georgia Perimeter College; Jeffrey A. Buchanan, Minnesota State University, Mankato; Gregory M. Buchanan, Beloit College; Laura Burlingame-Lee, Colorado State University; Loretta Burehorn, Boston College; Glenn M. Callaghan, San José State University; E. Allen Campbell, University of St. Francis; Julie Carboni, San Jose Christian College and National University; David N. Carpenter, Southwest Texas University; Marc Celentana, The College of New Jersey; Edward Chang, University of Michigan; Daniel Chazin, Rutgers University; Sarah Cirese, College of Marin; June Madsen Clausen, University of San Francisco; Victor B. Cline, University of Utah; E. M. Coles, Simon Fraser University; Michael Connor, California State University, Long Beach; Frederick L. Coolidge, University of Colorado, Colorado Springs; Patrick J. Courtney, Central Ohio Technical College; Charles Cummings, Asheville Buncombe Technical Community College; Dennis Curtis, Metropolitan Community College; Timothy K. Daugherty, Missouri State University; Lauren Doninger, Gateway Community College; Mary Dosier, University of Delaware; S. Wayne Duncan, University of Washington, Seattle; Anne Duran, California State University, Bakersfield; Morris N. Eagle, York University; Miriam Ehrenberg, John
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Ron Comer
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Abnormal Psychology: Past and Present

Johanne cries herself to sleep every night. She is certain that the future holds nothing but misery. Indeed, this is the only thing she does feel certain about. “I’m going to suffer and suffer and suffer, and my daughters will suffer as well. We’re doomed. The world is ugly. I hate every moment of my life.” She has great trouble sleeping. She is afraid to close her eyes. When she does, the hopelessness of her life—and the ugly future that awaits her daughters—becomes all the clearer to her. When she drifts off to sleep, her dreams are nightmares filled with terrible images—bodies, decay, death, destruction.

Some mornings Johanne even has trouble getting out of bed. The thought of facing another day overwhelms her. She wishes that she and her daughters were dead. “Get it over with. We’d all be better off.” She feels paralyzed by her depression and anxiety, overwhelmed by her sense of hopelessness, and filled with fears of becoming ill, too tired to move, too negative to try anymore. On such mornings, she huddles her daughters close to her and sits away the day in the cramped tent she shares with her daughters. She feels she has been deserted by the world and left to rot. She is both furious at life and afraid of it at the same time.

During the past year Alberto has been hearing mysterious voices that tell him to quit his job, leave his family, and prepare for the coming invasion. These voices have brought tremendous confusion and emotional turmoil to Alberto’s life. He believes that they come from beings in distant parts of the universe who are somehow wired to him. Although it gives him a sense of purpose and specialness to be the chosen target of their communications, the voices also make him tense and anxious. He does all he can to warn others of the coming apocalypse. In accordance with instructions from the voices, he identifies online articles that seem to be filled with foreboding signs, and he posts comments that plead with other readers to recognize the articles’ underlying messages. Similarly, he posts long, rambling YouTube videos that describe the invasion to come. The online comments and feedback that he receives typically ridicule and mock him. If he rejects the voices’ instructions and stops his online commentary and videos, then the voices insult and threaten him and turn his days into a waking nightmare.

Alberto has put himself on a sparse diet as protection against the possibility that his enemies may be contaminating his food. He has found a quiet apartment far from his old haunts, where he has laid in a good stock of arms and ammunition. After witnessing the abrupt and troubling changes in his behavior and watching his ranting and rambling videos, his family and friends have tried to reach out to Alberto, to understand his problems, and to dissuade him from the disturbing course he is taking. Every day, however, he retreats further into his world of mysterious voices and imagined dangers.

Most of us would probably consider Johanne’s and Alberto’s emotions, thoughts, and behaviors psychologically abnormal. They are the result of a state sometimes called psychopathology, maladjustment, emotional disturbance, or mental illness (see PsychWatch on the next page). These terms have been applied to the many problems that seem closely tied to the human brain or mind. Psychological abnormality affects the famous and the unknown, the rich and the poor. Celebrities, writers, politicians, and other public figures of the present
and the past have struggled with it. Psychological problems can bring great suffering, but they can also be the source of inspiration and energy. Because they are so common and so personal, these problems capture the interest of us all. Hundreds of novels, plays, films, and television programs have explored what many people see as the dark side of human nature, and self-help books flood the market. Mental health experts are popular guests on both television and radio, and some even have their own shows, Web sites, and blogs.

The field devoted to the scientific study of the problems we find so fascinating is usually called abnormal psychology. As in any science, workers in this field, called clinical scientists, gather information systematically so that they can describe, predict, and explain the phenomena they study. The knowledge that they acquire is then used by clinical practitioners, whose role is to detect, assess, and treat abnormal patterns of functioning.

What Is Psychological Abnormality?

Although their general goals are similar to those of other scientific professionals, clinical scientists and practitioners face problems that make their work especially difficult. One of the most troubling is that psychological abnormality is very hard to define. Consider once again Johanne and Alberto. Why are we so ready to call their responses abnormal?

While many definitions of abnormality have been proposed over the years, none has won total acceptance (Bergner & Bunford, 2014; Pierre, 2010). Still, most of the definitions have certain features in common, often called “the four Ds”: deviance, distress, dysfunction, and danger. That is, patterns of psychological abnormality are typically deviant (different, extreme, unusual, perhaps even bizarre), distressing (unpleasant and upsetting to the person), dysfunctional (interfering with the person’s

PsychWatch

Verbal Debuts

We use words like “abnormal” and “mental disorder” so often that it is easy to forget that there was a time not that long ago when these terms did not exist. When did these and similar words (including slang terms) make their debut in print as expressions of psychological dysfunctioning? The Oxford English Dictionary offers the following dates.
ability to conduct daily activities in a constructive way), and possibly dangerous. This definition offers a useful starting point from which to explore the phenomena of psychological abnormality. As you will see, however, it has key limitations.

Deviance

Abnormal psychological functioning is deviant, but deviant from what? Johanne’s and Alberto’s behaviors, thoughts, and emotions are different from those that are considered normal in our place and time. We do not expect people to cry themselves to sleep each night, hate the world, wish themselves dead, or obey voices that no one else hears.

In short, abnormal behavior, thoughts, and emotions are those that differ markedly from a society’s ideas about proper functioning. Each society establishes norms—stated and unstated rules for proper conduct. Behavior that breaks legal norms is considered to be criminal. Behavior, thoughts, and emotions that break norms of psychological functioning are called abnormal.

Judgments about what constitutes abnormality vary from society to society. A society’s norms grow from its particular culture—its history, values, institutions, habits, skills, technology, and arts. A society that values competition and assertiveness may accept aggressive behavior, whereas one that emphasizes cooperation and gentleness may consider aggressive behavior unacceptable and even abnormal. A society’s values may also change over time, causing its views of what is psychologically abnormal to change as well. In Western society, for example, a woman seeking the power of running a major corporation or indeed of leading the country would have been considered inappropriate and even delusional a hundred years ago. Today the same behavior is valued.

Judgments about what constitutes abnormality depend on specific circumstances as well as on cultural norms. What if, for example, we were to learn that Johanne is a citizen of Haiti and that her desperate unhappiness began in the days, weeks, and months following the massive earthquake that struck her country, already the poorest country in the Western hemisphere, on January 12, 2010? The quake, one of the worst natural disasters in history, killed 250,000 Haitians, left 1.5 million homeless, and destroyed most of the country’s business establishments and educational institutions. Half of Haiti’s homes and buildings were immediately turned into rubble, and its electricity and other forms of power disappeared. Tent cities replaced homes for most people. Over the next few months, a devastating hurricane, an outbreak of cholera, and violent political protests brought still more death and destruction to the people of Haiti (Granitz, 2014; MCEER, 2011; Wilkinson, 2011).

In the weeks and months that followed the earthquake, Johanne came to accept that she wouldn’t get all of the help she needed and that she might never again see the friends and neighbors who had once given her life so much meaning. As she and her daughters moved from one temporary tent or hut to another throughout the country, always at risk of developing serious diseases, she gradually gave up all hope that her life would ever return to normal. The modest but happy life she and her daughters had once known was now gone, seemingly forever. In this light, Johanne’s reactions do not seem quite so inappropriate. If anything is abnormal here, it is her situation.
Many human experiences produce intense reactions—financial ruin, large-scale catastrophes and disasters, rape, child abuse, war, terminal illness, chronic pain (Fu et al., 2014; Walsh et al., 2014). Is there an “appropriate” way to react to such things? Should we ever call reactions to such experiences abnormal?

Distress

Even functioning that is considered unusual does not necessarily qualify as abnormal. According to many clinical theorists, behavior, ideas, or emotions usually have to cause distress before they can be labeled abnormal. Consider the Ice Breakers, a group of people in Michigan who go swimming in lakes throughout the state every weekend from November through February. The colder the weather, the better they like it. One man, a member of the group for 17 years, says he loves the challenge of human against nature. A 37-year-old lawyer believes that the weekly shock is good for her health. “It cleanses me,” she says. “It perks me up and gives me strength.”

Certainly these people are different from most of us, but is their behavior abnormal? Far from experiencing distress, they feel energized and challenged. Their positive feelings must cause us to hesitate before we decide that they are functioning abnormally.

Should we conclude, then, that feelings of distress must always be present before a person’s functioning can be considered abnormal? Not necessarily. Some people who function abnormally maintain a positive frame of mind. Consider once again Alberto, the young man who hears mysterious voices. Alberto does experience distress over the coming invasion and the life changes he feels forced to make. But what if he enjoyed listening to the voices, felt honored to be chosen, loved sending out warnings on the Internet, and looked forward to saving the world? Shouldn’t we still regard his functioning as abnormal?

Dysfunction

Abnormal behavior tends to be dysfunctional; that is, it interferes with daily functioning (Bergner & Bunford, 2014). It so upsets, distracts, or confuses people that they cannot care for themselves properly, participate in ordinary social interactions,
or work productively. Alberto, for example, has quit his job, left his family, and prepared to withdraw from the productive life he once led.

Here again one’s culture plays a role in the definition of abnormality. Our society holds that it is important to carry out daily activities in an effective manner. Thus Alberto’s behavior is likely to be regarded as abnormal and undesirable, whereas that of the Ice Breakers, who continue to perform well in their jobs and enjoy fulfilling relationships, would probably be considered simply unusual.

Dysfunction alone, though, does not necessarily indicate psychological abnormality. Some people (Gandhi or Cesar Chavez, for example) fast or in other ways deprive themselves of things they need as a means of protesting social injustice. Far from receiving a clinical label of some kind, they are widely viewed as admirable people—caring, sacrificing, even heroic.

**Danger**

Perhaps the ultimate in psychological dysfunctioning is behavior that becomes dangerous to oneself or others. Individuals whose behavior is consistently careless, hostile, or confused may be placing themselves or those around them at risk. Alberto, for example, seems to be endangering both himself, with his diet, and others, with his buildup of arms and ammunition.

Although danger is often cited as a feature of abnormal psychological functioning, research suggests that it is actually the exception rather than the rule (Stuber et al., 2014; Jorm et al., 2012). Despite powerful misconceptions, most people struggling with anxiety, depression, and even bizarre thinking pose no immediate danger to themselves or to anyone else.

**The Elusive Nature of Abnormality**

Efforts to define psychological abnormality typically raise as many questions as they answer. Ultimately, a society selects general criteria for defining abnormality and then uses those criteria to judge particular cases.

One clinical theorist, Thomas Szasz (1920–2012), placed such emphasis on society’s role that he found the whole concept of mental illness to be invalid, a myth of sorts (Szasz, 2012, 2011, 1963, 1960). According to Szasz, the deviations that society calls abnormal are simply “problems in living,” not signs of something wrong within the person. Societies, he was convinced, invent the concept of mental illness so that they can better control or change people whose unusual patterns of functioning upset or threaten the social order.

Even if we assume that psychological abnormality is a valid concept and that it can indeed be defined, we may be unable to apply our definition consistently. If a behavior—excessive use of alcohol among college students, say—is familiar enough, the society may fail to recognize that it is deviant, distressful, dysfunctional, and dangerous. Thousands of college students throughout the United States are so dependent on alcohol that it interferes with their personal and academic lives, causes them great discomfort, jeopardizes their health, and often endangers them and the people around them (Merrill et al., 2014). Yet their problem often goes unnoticed and undiagnosed. Alcohol is so much a part of the college subculture that it is easy to overlook drinking behavior that has become abnormal.
Conversely, a society may have trouble separating an abnormality that requires intervention from an eccentricity, an unusual pattern with which others have no right to interfere. From time to time we see or hear about people who behave in ways we consider strange, such as a man who lives alone with two dozen cats and rarely talks to other people. The behavior of such people is deviant, and it may well be distressful and dysfunctional, yet many professionals think of it as eccentric rather than abnormal (see PsychWatch above).

In short, while we may agree to define psychological abnormalities as patterns of functioning that are deviant, distressful, dysfunctional, and sometimes dangerous, we should be clear that these criteria are often vague and subjective. In turn, few of the current categories of abnormality that you will meet in this book are as clear-cut as they may seem, and most continue to be debated by clinicians.

What Is Treatment?

Once clinicians decide that a person is indeed suffering from some form of psychological abnormality, they seek to treat it. Treatment, or therapy, is a procedure designed to change abnormal behavior into more normal behavior; it, too, requires
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For clinical scientists, the problem is closely related to defining abnormality. Consider the case of Bill:

**February:** He cannot leave the house; Bill knows that for a fact. Home is the only place where he feels safe—safe from humiliation, danger, even ruin. If he were to go to work, his coworkers would somehow reveal their contempt for him. A pointed remark, a quizzical look—that’s all it would take for him to get the message. If he were to go shopping at the store, before long everyone would be staring at him. Surely others would see his dark mood and thoughts; he wouldn’t be able to hide them. He dare not even go for a walk alone in the woods—his heart would probably start racing again, bringing him to his knees and leaving him breathless, incoherent, and unable to get home. No, he’s much better off staying in his room, trying to get through another evening of this curse called life. Thank goodness for the Internet. Were it not for his reading of news sites and blog posts and online forums, he would, he knows, be cut off from the world altogether.

**July:** Bill’s life revolves around his circle of friends: Bob and Jack, whom he knows from the office, where he was recently promoted to director of customer relations, and Frank and Tim, his weekend tennis partners. The gang meets for dinner every week at someone’s house, and they chat about life, politics, and their jobs. Particularly special in Bill’s life is Janice. They go to movies, restaurants, and shows together. She thinks Bill’s just terrific, and Bill finds himself beaming whenever she’s around. Bill looks forward to work each day and to his one-on-one dealings with customers. He is taking part in many activities and relationships and more fully enjoying life.

Bill’s thoughts, feelings, and behavior interfered with all aspects of his life in February. Yet most of his symptoms had disappeared by July. All sorts of factors may have contributed to Bill’s improvement—advice from friends and family members, a new job or vacation, perhaps a big change in his diet or exercise regimen. Any or all of these things may have been useful to Bill, but they could not be considered treatment or therapy. Those terms are usually reserved for special, systematic procedures for helping people overcome their psychological difficulties. According to clinical theorist Jerome Frank, all forms of therapy have three essential features:

1. A sufferer who seeks relief from the healer.
2. A trained, socially accepted healer, whose expertise is accepted by the sufferer and his or her social group.
3. A series of contacts between the healer and the sufferer, through which the healer . . . tries to produce certain changes in the sufferer’s emotional state, attitudes, and behavior.

(Frank, 1973, pp. 2–3)

Despite this straightforward definition, clinical treatment is surrounded by conflict and confusion. Carl Rogers, a pioneer in the modern clinical field (you will meet him in Chapter 3), noted that “therapists are not in agreement as to their goals or aims. . . . They are not in agreement as to what constitutes a successful outcome of their work. They cannot agree as to what constitutes a failure. It seems as though the field is completely chaotic and divided.”

Some clinicians view abnormality as an illness and so consider therapy a procedure that helps cure the illness. Others see abnormality as a problem in living and therapists as teachers of more functional behavior and thought. Clinicians even
differ on what to call the person who receives therapy: those who see abnormality as an illness speak of the “patient,” while those who view it as a problem in living refer to the “client.” Because both terms are so common, this book will use them interchangeably.

Despite their differences, most clinicians do agree that large numbers of people need therapy of one kind or another. Later you will encounter evidence that therapy is indeed often helpful.

How Was Abnormality Viewed and Treated in the Past?

In any given year, as many as 30 percent of the adults and 19 percent of the children and adolescents in the United States display serious psychological disturbances and are in need of clinical treatment (Merikangas et al., 2013; Kessler et al., 2012, 2009, 2007, 2005). The rates in other countries are similarly high. Furthermore, most people have difficulty coping at various times and go through periods of extreme tension, dejection, or other forms of psychological discomfort.

It is tempting to conclude that something about the modern world is responsible for these many emotional problems—perhaps rapid technological change, the growing threat of terrorism, or a decline in religious, family, or other support systems (Gelkopf et al., 2013; North, 2010) (see PsychWatch on the next page). Although the pressures of modern life probably do contribute to psychological dysfunctioning, they are hardly its primary cause (Wang et al., 2010). Every society, past and present, has witnessed psychological abnormality. Perhaps, then, the proper place to begin our examination of abnormal behavior and treatment is in the past.

Ancient Views and Treatments

Historians who have examined the unearthed bones, artwork, and other remnants of ancient societies have concluded that these societies probably regarded abnormal behavior as the work of evil spirits. People in prehistoric societies apparently believed that all events around and within them resulted from the actions of magical, sometimes sinister, beings who controlled the world. In particular, they viewed the human body and mind as a battleground between external forces of good and evil. Abnormal behavior was typically interpreted as a victory by evil spirits, and the cure for such behavior was to force the demons from a victim’s body.

This supernatural view of abnormality may have begun as far back as the Stone Age, a half-million years ago. Some skulls from that period recovered in Europe and South America show evidence of an operation called trephination, in which a stone instrument, or trephine, was used to cut away a circular section of the skull (Heeramun–Aubeeluck & Lu, 2013). Some historians have concluded that this early operation was performed as a treatment for severe abnormal behavior—either hallucinations, in which people saw or heard things not actually present, or melancholia, characterized by extreme sadness and immobility. The purpose of opening the skull was to release the evil spirits that were supposedly causing the problem (Selling, 1940).

In recent decades, some historians have questioned whether Stone Age people actually believed that evil spirits caused abnormal behavior. Trephination may instead have been used to remove bone splinters or blood clots caused by stone weapons during tribal warfare (Maher

> trephination An ancient operation in which a stone instrument was used to cut away a circular section of the skull, perhaps to treat abnormal behavior.
Either way, later societies clearly did attribute abnormal behavior to possession by demons. Egyptian, Chinese, and Hebrew writings all account for psychological deviance this way. The Bible, for example, describes how an evil spirit from the Lord affected King Saul and how David feigned madness to convince his enemies that he was visited by divine forces.

The treatment for abnormality in these early societies was often exorcism. The idea was to coax the evil spirits to leave or to make the person’s body an uncomfortable place in which to live.

What demonological explanations or treatments, besides exorcism, are still around today, and why do they persist?
chapter 10

A shaman, or priest, might recite prayers, plead with the evil spirits, insult the spirits, perform magic, make loud noises, or have the person drink bitter potions. If these techniques failed, the shaman performed a more extreme form of exorcism, such as whipping or starving the person.

Greek and Roman Views and Treatments

In the years from roughly 500 B.C. to 500 A.D., when the Greek and Roman civilizations thrived, philosophers and physicians often offered different explanations and treatments for abnormal behaviors. Hippocrates (460–377 B.C.), often called the father of modern medicine, taught that illnesses had natural causes. He saw abnormal behavior as a disease arising from internal physical problems. Specifically, he believed that some form of brain pathology was the culprit and that it resulted—like all other forms of disease, in his view—from an imbalance of four fluids, or humors, that flowed through the body: yellow bile, black bile, blood, and phlegm (Wolters, 2013; Zuckerman, 2011). An excess of yellow bile, for example, caused mania, a state of frenzied activity; an excess of black bile was the source of melancholia, a condition marked by unshakable sadness.

To treat psychological dysfunctioning, Hippocrates sought to correct the underlying physical pathology. He believed, for instance, that the excess of black bile underlying melancholia could be reduced by a quiet life; a diet of vegetables; temperance; exercise; celibacy; and even bleeding. Hippocrates’ focus on internal causes for abnormal behavior was shared by the great Greek philosophers Plato (427–347 B.C.) and Aristotle (384–322 B.C.) and by influential Greek and Roman physicians.

Europe in the Middle Ages: Demonology Returns

The enlightened views of Greek and Roman physicians and scholars were not enough to shake ordinary people’s belief in demons. And with the decline of Rome, demonological views and practices became popular once again. A growing distrust of science spread throughout Europe.

From 500 to 1350 A.D., the period known as the Middle Ages, the power of the clergy increased greatly throughout Europe. In those days the church rejected scientific forms of investigation, and it controlled all education. Religious beliefs, which were highly superstitious and demonological, came to dominate all aspects of life. Once again behavior was usually interpreted as a conflict between good and evil, God and the devil. Deviant behavior, particularly psychological dysfunctioning, was seen as evidence of Satan’s influence. Although some scientists and physicians still insisted on medical explanations and treatments, their views carried little weight in this atmosphere.

The Middle Ages were a time of great stress and anxiety—of war, urban uprisings, and plagues. People blamed the devil for these troubles and feared being possessed by him (Sluhovsky, 2011). Abnormal behavior apparently increased greatly during this period. In addition, there were outbreaks of mass madness, in which large numbers of people apparently shared delusions (absurd false beliefs) and hallucinations.
(imagined sights or sounds). In one such disorder, tarantism (also known as Saint Vitus’ dance), groups of people would suddenly start to jump, dance, and go into convulsions (Prochwicz & Sobczyk, 2011; Sigerist, 1943). Some dressed oddly; others tore off their clothing. All were convinced that they had been bitten and possessed by a wolf spider, now called a tarantula, and they sought to cure their disorder by performing a dance called a tarantella. In another form of mass madness, lycanthropy, people thought they were possessed by wolves or other animals. They acted wolflike and imagined that fur was growing all over their bodies.

Not surprisingly, some of the earlier demonological treatments for psychological abnormality reemerged during the Middle Ages. Once again the key to the cure was to rid the person’s body of the devil that possessed it. Exorcisms were revived, and clergymen, who generally were in charge of treatment during this period, would plead, chant, or pray to the devil or evil spirit (Sluhovsky, 2011, 2007). If these techniques did not work, they had others to try, some amounting to torture.

It was not until the Middle Ages drew to a close that demonology and its methods began to lose favor. Towns throughout Europe grew into cities, and government officials gained more power and took over nonreligious activities. Among their other responsibilities, they began to run hospitals and direct the care of people suffering from mental disorders. Medical views of abnormality gained favor once again, and many people with psychological disturbances received treatment in medical hospitals, such as the Trinity Hospital in England (Allderidge, 1979).

The Renaissance and the Rise of Asylums

During the early part of the Renaissance, a period of flourishing cultural and scientific activity from about 1400 to 1700, demonological views of abnormality continued to decline. German physician Johann Weyer (1515–1588), the first physician to specialize in mental illness, believed that the mind was as susceptible to sickness as the body was. He is now considered the founder of the modern study of psychopathology.

The care of people with mental disorders continued to improve in this atmosphere. In England, such individuals might be kept at home while their families were aided financially by the local parish. Across Europe, religious shrines were devoted to the humane and loving treatment of people with mental disorders. Perhaps the best known of these shrines was at Gheel in Belgium. Beginning in the fifteenth century, people came to Gheel from all over the world for psychic healing. Local residents welcomed these pilgrims into their homes, and many stayed on to form the world’s first “colony” of mental patients. Gheel was the forerunner of today’s community mental health programs, and it continues to demonstrate that people with psychological disorders can respond to loving care and respectful treatment (Guarnieri, 2009; Aring, 1975, 1974). Many patients still live in foster homes there, interacting with other residents, until they recover.

Unfortunately, these improvements in care began to fade by the mid-sixteenth century. Government officials discovered that private homes and community residences could house only a small percentage of those with severe mental disorders and that medical hospitals were too few and too small. More and more, they converted hospitals and monasteries into asylums, institutions whose primary purpose was to care for people with mental illness. These institutions were begun with the intention that they would provide good care (Kazano, 2012). Once the asylums started to overflow, however, they became virtual prisons where patients were held in filthy conditions and treated with unspeakable cruelty.

Bewitched or bewildered?
A great fear of witchcraft swept Europe beginning in the 1300s and extending through the “enlightened” Renaissance. Tens of thousands of people, mostly women, were thought to have made a pact with the devil. Some appear to have had mental disorders, which caused them to act strangely (Zilboorg & Henry, 1941). This woman is being “dunked” repeatedly until she confesses to witchery.

The “crib”
Outrageous devices and techniques, such as the “crib,” were used in asylums, and some continued to be used even during the reforms of the nineteenth century.
In 1547, for example, Bethlehem Hospital was given to the city of London by Henry VIII for the sole purpose of confining the mentally ill. In this asylum, patients bound in chains cried out for all to hear. The hospital even became a popular tourist attraction; people were eager to pay to look at the howling and gibbering inmates. The hospital’s name, pronounced “Bedlam” by the local people, has come to mean a chaotic uproar (Selling, 1940). Such asylums remained a widely used form of “care” until the late 1700s.

The Nineteenth Century: Reform and Moral Treatment

As 1800 approached, the treatment of people with mental disorders began to improve once again (Schuster et al., 2011; Maher & Maher, 2003). Historians usually point to La Bicêtre, an asylum in Paris for male patients, as the first site of asylum reform. In 1793, during the French Revolution, Philippe Pinel (1745–1826) was named the chief physician there. He argued that the patients were sick people whose illnesses should be treated with sympathy and kindness rather than chains and beatings (Yakushev & Sidorov, 2013). He unchained the patients and allowed them to move freely about the hospital grounds; replaced the dark dungeons with sunny, well-ventilated rooms; and offered support and advice. Pinel’s approach proved remarkably successful. Many patients who had been shut away for decades improved greatly over a short period of time and were released. Pinel later brought similar reforms to a mental hospital in Paris for female patients, La Salpetrière.

Meanwhile, an English Quaker named William Tuke (1732–1819) was bringing similar reforms to northern England. In 1796 he founded the York Retreat, a rural estate where about 30 mental patients lived as guests in quiet country houses and were treated with a combination of rest, talk, prayer, and manual work (Raad & Makari, 2010).
The Spread of Moral Treatment  The methods of Pinel and Tuke, called moral treatment because they emphasized moral guidance and humane and respectful techniques, caught on throughout Europe and the United States. Patients with psychological problems were increasingly perceived as potentially productive human beings whose mental functioning had broken down under stress. They were considered deserving of individual care, including discussions of their problems, useful activities, work, companionship, and quiet.

The person most responsible for the early spread of moral treatment in the United States was Benjamin Rush (1745–1813), an eminent physician at Pennsylvania Hospital who is now considered the father of American psychiatry. Limiting his practice to mental illness, Rush developed humane approaches to treatment (Grossman, 2013; Rush, 2010). For example, he required that the hospital hire intelligent and sensitive attendants to work closely with patients, reading and talking to them and taking them on regular walks. He also suggested that it would be therapeutic for doctors to give small gifts to their patients now and then.

Rush’s work was influential, but it was a Boston schoolteacher named Dorothea Dix (1802–1887) who made humane care a public and political concern in the United States. From 1841 to 1881, Dix went from state legislature to state legislature and to Congress speaking of the horrors she had observed at asylums and calling for reform. Dix’s campaign led to new laws and greater government funding to improve the treatment of people with mental disorders (Davidson et al., 2010; Zilboorg & Henry, 1941). Each state was made responsible for developing effective public mental hospitals, or state hospitals, all of which were intended to offer moral treatment. Similar hospitals were established throughout Europe.

The Decline of Moral Treatment  By the 1850s, a number of mental hospitals throughout Europe and America reported success using moral approaches. By the end of that century, however, several factors led to a reversal of the moral treatment movement (Kazano, 2012; Cautin, 2011; Bockoven, 1963). One factor was the speed with which the movement had spread. As mental hospitals multiplied, severe money and staffing shortages developed, recovery rates declined, and overcrowding in the hospitals became a major problem. Another factor was the assumption behind moral treatment that all patients could be cured if treated with humanity and dignity. For some, this was indeed sufficient. Others, however, needed more effective treatments than any that had yet been developed. An additional factor contributing to the decline of moral treatment was the emergence of a new wave of prejudice against people with mental disorders. As more and more patients disappeared into large, distant mental hospitals, the public came to view them as strange and dangerous. In turn, people were less open-handed when it came to making donations or allocating government funds. Moreover, many of the patients entering public mental hospitals in the United States in the late nineteenth century were poor foreign immigrants, whom the public had little interest in helping (see MediaSpeak on the next page).

By the early years of the twentieth century, the moral treatment movement had ground to a halt in both the United States and Europe. Public mental hospitals were providing only custodial care and ineffective medical treatments and were becoming more overcrowded every year. Long-term hospitalization became the rule once again.

> **moral treatment**  A nineteenth-century approach to treating people with mental dysfunction that emphasized moral guidance and humane and respectful treatment.

> **state hospitals**  State-run public mental institutions in the United States.
A Canadian woman was denied entry to the United States last month because she had been hospitalized for depression in 2012. Ellen Richardson could not visit, she was told, unless she obtained “medical clearance” from one of three Toronto doctors approved by the Department of Homeland Security. Endorsement by her own psychiatrist, which she could presumably have obtained more efficiently, “would not suffice.” She had been en route to New York, where she had intended to board a cruise to the Caribbean. . . .

The border agent told her he was acting in accordance with the United States Immigration and Nationality Act, Section 212, which allows patrols to block people from visiting the United States if they have a physical or mental disorder that threatens anyone’s “property, safety or welfare.” The [Toronto] Star reported that the agent produced a signed document stating that Ms. Richardson would need a medical evaluation because of her “mental illness episode.” . . .

This is not the first time such measures have been reported. In 2011, Lois Kamenitz, a Canadian and a former teacher, was barred from entering the United States because she had once attempted suicide. Ryan Fritsch, former co-chairman of the Ontario Mental Health Police Record Check Coalition, told the Star that he had heard of eight similar cases that year. After the incident, he wrote to me: “My sense is that there are a great many people being turned away. . . .”

Ms. Richardson’s health information should never have been available to United States authorities, and many Canadians are outraged at the thought that their government may have divulged it. . . . Much more troubling, however, is the notion that information about a person’s depression, no matter how legitimately obtained, might have any bearing on her ability to visit the United States.

People in treatment for mental illnesses do not have a higher rate of violence than people without mental illnesses. Furthermore, depression affects one in 10 American adults. . . . Pillorying depression is regressive, a swoop back into a period when any sign of mental illness was the basis for social exclusion. . . .

What kind of roles should mental health experts play in the development of immigration, gun, or other laws that target people with mental disorders?

This border policy is not only unfair to visitors, but also constitutes an affront to the millions of Americans who are grappling with mental-health challenges.

Stigmatizing the condition is bad; stigmatizing the treatment is even worse. . . . Yet this incident will serve only to warn people against seeking treatment for mental illness. . . . Ms. Richardson, who attempted suicide in 2001 and as a result is paraplegic, has asserted that she has had appropriate treatment, and that she now has a fulfilling, purposeful life. We should applaud people who get treatment and manage to live deeply despite their challenges. . . . The president needs to speak out against Section 212 . . . and to put to rest the idea that people with mental health conditions who pose no danger are unwelcome in our country.
The Early Twentieth Century: The Somatogenic and Psychogenic Perspectives

As the moral movement was declining in the late 1800s, two opposing perspectives emerged and began to compete for the attention of clinicians: the somatogenic perspective, the view that abnormal psychological functioning has physical causes, and the psychogenic perspective, the view that the chief causes of abnormal functioning are psychological. These perspectives came into full bloom during the twentieth century.

The Somatogenic Perspective

The somatogenic perspective has at least a 2,400-year history—remember Hippocrates’ view that abnormal behavior resulted from brain disease and an imbalance of humors? Not until the late nineteenth century, however, did this perspective make a triumphant return and begin to gain wide acceptance.

Two factors were responsible for this rebirth. One was the work of a distinguished German researcher, Emil Kraepelin (1856–1926). In 1883, Kraepelin published an influential textbook arguing that physical factors, such as fatigue, are responsible for mental dysfunction. In addition, as you will see in Chapter 4, he developed the first modern system for classifying abnormal behavior. He identified various syndromes, or clusters of symptoms; listed their physical causes; and discussed their expected course (Jäger, Frasch, & Becher, 2013; Zivanovic & Nedic, 2012).

New biological discoveries also triggered the rise of the somatogenic perspective. One of the most important discoveries was that an organic disease, syphilis, led to general paresis, an irreversible disorder with both physical and mental symptoms, including paralysis and delusions of grandeur (Hogebrug et al., 2013; Kaplan, 2010). In 1897, the German neurologist Richard von Krafft-Ebing (1840–1902) injected matter from syphilis sores into patients suffering from general paresis and found that none of the patients developed symptoms of syphilis. Their immunity could have been caused only by an earlier case of syphilis. Since all of his patients with general paresis were now immune to syphilis, Krafft-Ebing theorized that syphilis had been the cause of their general paresis. Finally, in 1905, Fritz Schaudinn (1871–1906), a German zoologist, discovered that the microorganism Treponema pallida was responsible for syphilis, which in turn caused general paresis.

The work of Kraepelin and the new understanding of general paresis led many researchers and practitioners to suspect that physical factors were responsible for many mental disorders, perhaps all of them. These theories and the possibility of quick and effective medical solutions for mental disorders were especially welcomed by those who worked in mental hospitals, where patient populations were now growing at an alarming rate.

Despite the general optimism, biological approaches yielded mostly disappointing results throughout the first half of the twentieth century. Although many medical treatments were developed for patients in mental hospitals during that time, most of the techniques failed to work. Physicians tried tooth extraction, tonsillectomy, hydrotherapy (alternating hot and cold baths), and lobotomy, a surgical cutting of certain nerve fibers in the brain. Even worse, biological views and claims led, in some circles, to proposals for immoral solutions such as eugenic sterilization, the elimination (through medical or other means) of individuals’ ability to reproduce (see Table 1-1 on the next page). Not until the 1950s, when a number of effective
medications were finally discovered, did the somatogenic perspective truly begin to pay off for patients.

The Psychogenic Perspective The late nineteenth century also saw the emergence of the psychogenic perspective, the view that the chief causes of abnormal functioning are often psychological. This view, too, had a long history, but it did not gain much of a following until studies of hypnotism demonstrated its potential.

Hypnotism is a procedure in which a person is placed in a trancelike mental state during which he or she becomes extremely suggestible. It was used to help treat psychological disorders as far back as 1778, when an Austrian physician named Friedrich Anton Mesmer (1734–1815) established a clinic in Paris. His patients suffered from hysterical disorders, mysterious bodily ailments that had no apparent physical basis. Mesmer had his patients sit in a darkened room filled with music; then he appeared, dressed in a colorful costume, and touched the troubled area of each patient's body with a special rod. A surprising number of patients seemed to be helped by this treatment, called mesmerism (Musikantow, 2011; Dingfelder, 2010). Their pain, numbness, or paralysis disappeared. Several scientists believed that Mesmer was inducing a trancelike state in his patients and that this state was causing their symptoms to disappear. The treatment was so controversial, however, that eventually Mesmer was banished from Paris.

It was not until years after Mesmer died that many researchers had the courage to investigate his procedure, later called hypnosis (from hypnos, the Greek word for “sleep”), and its effects on hysterical disorders. The experiments of two physicians practicing in the city of Nancy in France, Hippolyte-Marie Bernheim (1840–1919) and Ambroise-Auguste Liébault (1823–1904), showed that hysterical disorders could be cured by suggesting to the patient that he or she was not ill.

psychoanalysis Either the theory or the treatment of abnormal mental functioning that emphasizes unconscious psychological forces as the cause of psychopathology.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1896</td>
<td>Connecticut became the first state in the United States to prohibit persons with mental disorders from marrying.</td>
</tr>
<tr>
<td>1896–1933</td>
<td>Every state in the United States passed a law prohibiting marriage by persons with mental disorders.</td>
</tr>
<tr>
<td>1907</td>
<td>Indiana became the first state to pass a bill calling for people with mental disorders, as well as criminals and other “defectives,” to undergo sterilization.</td>
</tr>
<tr>
<td>1927</td>
<td>The U.S. Supreme Court ruled that eugenic sterilization was constitutional.</td>
</tr>
<tr>
<td>1907–1945</td>
<td>Approximately 45,000 Americans were sterilized under eugenic sterilization laws; 21,000 of them were patients in state mental hospitals.</td>
</tr>
<tr>
<td>1929–1932</td>
<td>Denmark, Norway, Sweden, Finland, and Iceland passed eugenic sterilization laws.</td>
</tr>
<tr>
<td>1933</td>
<td>Germany passed a eugenic sterilization law, under which 375,000 people were sterilized by 1940.</td>
</tr>
<tr>
<td>1940</td>
<td>Nazi Germany began to use “proper gases” to kill people with mental disorders; 70,000 or more people were killed in less than 2 years.</td>
</tr>
</tbody>
</table>

disorders could actually be induced in otherwise normal people while they were under the influence of hypnosis. That is, the physicians could make normal people experience deafness, paralysis, blindness, or numbness by means of hypnotic suggestion—and they could remove these artificial symptoms by the same means. Thus they established that a mental process—hypnotic suggestion—could both cause and cure even a physical dysfunction. Leading scientists concluded that hysterical disorders were largely psychological in origin, and the psychogenic perspective rose in popularity.

Among those who studied the effects of hypnotism on hysterical disorders was Josef Breuer (1842–1925) of Vienna. Breuer, a physician, discovered that his patients sometimes awoke free of hysterical symptoms after speaking candidly under hypnosis about past upsetting events. During the 1890s, Breuer was joined in his work by another Viennese physician, Sigmund Freud (1856–1939). As you will see in Chapter 3, Freud’s work eventually led him to develop the theory of psychoanalysis, which holds that many forms of abnormal and normal psychological functioning are psychogenic. In particular, Freud believed that unconscious psychological processes are at the root of such functioning.

Freud also developed the technique of psychoanalysis, a form of discussion in which clinicians help troubled people gain insight into their unconscious psychological processes. He believed that such insight, even without hypnotic procedures, would help the patients overcome their psychological problems.

Freud and his followers offered psychoanalytic treatment primarily to patients suffering from anxiety or depression, problems that did not typically require hospitalization. These patients visited therapists in their offices for sessions of approximately an hour and then went about their daily activities—a format of treatment now known as outpatient therapy. By the early twentieth century, psychoanalytic theory and treatment were widely accepted throughout the Western world (Cautin, 2011).

Current Trends

It would hardly be accurate to say that we now live in a period of great enlightenment about or dependable treatment of mental disorders. In fact, surveys have found that 43 percent of respondents believe that people bring mental disorders on themselves, and 35 percent consider such disorders to be caused by sinful behavior (Stuber et al., 2014; Stanford, 2007; NMHA, 1999). Nevertheless, there have been major changes over the past 50 years in the ways clinicians understand and treat abnormal functioning. There are more theories and types of treatment, more research studies, more information, and—perhaps because of those increases—more disagreements about abnormal functioning today than at any time in the past. In some ways the study and treatment of psychological disorders have made great strides, but in other respects clinical scientists and practitioners are still struggling to make a difference.
How Are People with Severe Disturbances Cared For?

In the 1950s, researchers discovered a number of new psychotropic medications—drugs that primarily affect the brain and reduce many symptoms of mental dysfunctioning. They included the first antipsychotic drugs, which correct extremely confused and distorted thinking; antidepressant drugs, which lift the mood of depressed people; and antianxiety drugs, which reduce tension and worry.

When given these drugs, many patients who had spent years in mental hospitals began to show signs of improvement. Hospital administrators, encouraged by these results and pressured by a growing public outcry over the terrible conditions in public mental hospitals, began to discharge patients almost immediately.

Since the discovery of these medications, mental health professionals in most of the developed nations of the world have followed a policy of deinstitutionalization, releasing hundreds of thousands of patients from public mental hospitals. On any given day in 1955, close to 600,000 people were confined in public mental institutions across the United States (see Figure 1-1). Today the daily patient population in the same kinds of hospitals is less than 40,000 (Althouse, 2010).

In short, outpatient care has now become the primary mode of treatment for people with severe psychological disturbances as well as for those with more moderate problems. When severely disturbed people do need institutionalization these days, they are usually hospitalized for a short period of time. Ideally, they are then provided with outpatient psychotherapy and medication in community programs and residences (Goldman & Tansella, 2013; McEvoy & Richards, 2007).

Chapters 3 and 15 will look more closely at this recent emphasis on community care for people with severe psychological disturbances—a philosophy called the community mental health approach. The approach has been helpful for many patients, but too few community programs are available to address current needs in the United States (Dixon et al., 2013; Lieberman, 2010). As a result, hundreds of thousands of persons with severe disturbances fail to make lasting recoveries, and they shuttle back and forth between the mental hospital and the community. After release from the hospital, they at best receive minimal care and often wind up living in decrepit rooming houses or on the streets. In fact, only 40 to 60 percent of persons with severe psychological disturbances currently receive treatment of any kind (Gill, 2010; NIMH, 2010). At least 100,000 people with such disturbances are homeless on any given day; another 135,000 or more are inmates of jails and prisons (Kooyman & Walsh, 2011; Althouse, 2010). Their abandonment is truly a national disgrace.

How Are People with Less Severe Disturbances Treated?

The treatment picture for people with moderate psychological disturbances has been more positive than that for people with severe disorders. Since the 1950s, outpatient care has continued to be the preferred mode of treatment for them, and the number and types of facilities that offer such care have expanded to meet the need.

Before the 1950s, almost all outpatient care took the form of private psychotherapy, an arrangement by which an individual directly pays a psychotherapist for counseling services. This tended to be an expensive form of treatment, available only to the wealthy. Since the 1950s, however, most health insurance plans have
expanded coverage to include private psychotherapy, so that it is now also widely available to people with more modest incomes. In addition, outpatient therapy is now offered in a number of less expensive settings, such as community mental health centers, crisis intervention centers, family service centers, and other social service agencies. The new settings have spurred a dramatic increase in the number of people seeking outpatient care for psychological problems. Surveys suggest that nearly one of every six adults in the United States receives treatment for psychological disorders in the course of a year (NIMH, 2010). The majority of clients are seen for fewer than five sessions during the year.

Outpatient treatments are also becoming available for more and more kinds of problems. When Freud and his colleagues first began to practice, most of their patients suffered from anxiety or depression. Almost half of today’s clients suffer from those same problems, but people with other kinds of disorders are also receiving therapy. In addition, at least 20 percent of clients enter therapy because of milder problems in living—problems with marital, family, job, peer, school, or community relationships (Ten Have et al., 2013; Druss & Bornemann, 2010; Druss et al., 2007).

Yet another change in outpatient care since the 1950s has been the development of programs devoted exclusively to one kind of psychological problem. We now have, for example, suicide prevention centers, substance abuse programs, eating disorder programs, phobia clinics, and sexual dysfunction programs. Clinicians in these programs have the kind of expertise that can be acquired only by concentration in a single area.

A Growing Emphasis on Preventing Disorders and Promoting Mental Health

Although the community mental health approach has often failed to address the needs of people with severe disorders, it has given rise to an important principle of mental health care—prevention (Grill & Monsell, 2014; Hutton & Taylor, 2014; Eckenrode, 2011). Rather than wait for psychological disorders to occur, many of today’s community programs try to correct the social conditions that underlie psychological problems (poverty or violence in the community, for example) and to

Green spaces and mental health

A young woman soaks in the green environment at Battersea Park in London. Recent positive psychology research has found that people who live in urban areas feel less distress and report higher life satisfaction if they reside in greener areas of their cities (White et al., 2013). Small wonder then that Londoners with easy access to parks and green spaces say that they have a better quality of life than those living without it.
help individuals who are at risk for developing emotional problems (for example, teenage mothers or the children of people with severe psychological disorders). As you will see later, community prevention programs are not always successful and they often suffer from limited funding, but they have grown in number throughout the United States and Europe, offering great promise as the ultimate form of intervention.

Prevention programs have been further energized in the past few years by the field of psychology’s ever-growing interest in positive psychology (Ramirez et al., 2014; Seligman & Fowler, 2011). Positive psychology is the study and enhancement of positive feelings such as optimism and happiness, positive traits like hard work and wisdom, positive abilities such as social skills and other talents, and group-directed virtues, including altruism and tolerance (see InfoCentral on the next page).

In the clinical arena, positive psychology suggests that practitioners can help people best by promoting positive development and psychological wellness. While researchers study and learn more about positive psychology in the laboratory, clinicians with this orientation teach people coping skills that may help protect them from stress and adversity and encourage them to become more involved in personally meaningful activities and relationships (Sergeant & Mongrain, 2014; Bolier et al., 2013). In this way, the clinicians are trying to promote mental health and prevent mental disorders.

**Multicultural Psychology**

We are, without question, a society of multiple cultures, races, and languages. Members of racial and ethnic minority groups in the United States collectively make up 35 percent of the population, a percentage that is expected to grow to more than 50 percent in the coming decades (Santa-Cruz, 2010; U.S. Census Bureau, 2010). This change is partly because of shifts in immigration trends and partly because of higher birth rates among minority groups in the United States (NVSR, 2010).

In response to this growing diversity, a new area of study called multicultural psychology has emerged. Multicultural psychologists seek to understand how culture, race, ethnicity, gender, and similar factors affect behavior and thought and how people of different cultures, races, and genders may differ psychologically (Alegría et al., 2013, 2010, 2004). As you will see throughout this book, the field of multicultural psychology has begun to have a powerful effect on our understanding and treatment of abnormal behavior.

**The Increasing Influence of Insurance Coverage**

So many people now seek therapy that private insurance companies have changed their coverage for mental health patients. Today the dominant form of coverage is the managed care program—a program in which the insurance company determines such key issues as which therapists its clients may choose, the cost of sessions, and the number of sessions for which a client may be reimbursed (Domino, 2012; Glasser, 2010).

At least 75 percent of all privately insured persons in the United States are currently enrolled in managed care programs (Deb et al., 2006; Kiesler, 2000). The coverage for mental health treatment under such programs follows the same basic principles as coverage for medical treatment, including a limited pool of practitioners from which patients can choose, preapproval of treatment by the insurance company, strict standards for judging whether problems and treatments qualify for reimbursement, and ongoing reviews and assessments. In the mental health
Positive psychology is the study of positive feelings, traits, and abilities. A better understanding of constructive functioning enables clinicians to better promote psychological wellness. Happiness is the positive psychology topic currently receiving the most attention. Many, but far from all, people are happy. In fact, only one-third of adults declare themselves “very happy.” Let’s take a look at some of today’s leading facts, figures, and notions about happiness.

**Happiness Building Blocks**

Are people born with a happy disposition? Or do their surroundings and life circumstances make them more or less happy? Researchers of this nature-versus-nurture question have learned that both sets of factors interact to determine one’s degree of happiness. But the factors have different degrees of impact.

**Who Tends to Be Happier?**

![Diagram showing factors contributing to happiness](chart)

- Politically conservative people vs. Politically liberal people
- Unashamed people vs. Guilt-ridden people
- Peaceful people vs. Angry people
- Extroverts vs. Introverts
- Regular church attenders vs. Church nonattenders

(Brooks, 2013; DePaulo, 2013; The Economist, 2010)

**WHAT Do Happy People Do?**

- Engage in social relationships and activities
- Bounce back from failures (resilience)
- Devote time to charity and giving
- Try to listen
- Exercise
- Get enough sleep

(Bratskeir, 2013)

**Social Contact and Happiness**

The more social contact, the happier we are – up to a point!

![Diagram showing social contact](chart)

<table>
<thead>
<tr>
<th>Hours of Daily Social Contact</th>
<th>People Who Are Happy</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hrs</td>
<td>30%</td>
</tr>
<tr>
<td>1 hr</td>
<td>34%</td>
</tr>
<tr>
<td>3 hrs</td>
<td>43%</td>
</tr>
<tr>
<td>6 hrs</td>
<td>53%</td>
</tr>
<tr>
<td>9 hrs</td>
<td>43%</td>
</tr>
</tbody>
</table>

(Crabtree, 2011)

**Work and Happiness**

Certain jobs have a higher percentage of happy people than others.

- Clergy: 67%
- Firefighters: 57%
- Special-education teachers: 53%
- Actors and directors: 51%
- House cleaners: 23%
- Restaurant kitchen workers: 21%
- Construction laborers: 19%
- Garage and service station attendants: 13%

(Mann, 2009; Smith 2007)

**Marriage and Happiness**

Married people are, on average, a bit happier than people with a different marital status.

- Currently married: 3.4
- Always single: 3.2
- Currently divorced: 2.9
- Currently widowed: 2.9

(DePaulo, 2013)
realm, both therapists and clients typically dislike managed care programs (Lustig et al., 2013; Schneid, 2010). They fear that the programs inevitably shorten therapy (often for the worse), unfairly favor treatments whose results are not always lasting (for example, drug therapy), pose a special hardship for those with severe mental disorders, and result in treatments determined by insurance companies rather than by therapists (Turner, 2013; Glasser, 2010).

A key problem with insurance coverage—both managed care and other kinds of insurance programs—is that reimbursements for mental disorders tend to be lower than those for medical disorders. This places persons with psychological difficulties at a distinct disadvantage (Abelson, 2013). In 2008, the U.S. Congress passed a federal parity law that directed insurance companies to provide equal coverage for mental and medical problems. However, a number of insurance companies found ways around that law and continued to deny or limit payments for mental health treatments. Thus in 2013, the Departments of Health and Human Services, Labor, and Treasury jointly issued a federal regulation that defined the principles of parity more clearly (SAMHSA, 2014; Calmes & Pear, 2013), and in 2014 the mental health provisions of the Affordable Care Act (the ACA)—referred to colloquially as “Obamacare”—went into effect and extended the reach of the 2013 regulations still further. For example, the ACA designates mental health care as 1 of 10 types of “essential health benefits” that must be provided by all insurers (SAMHSA, 2014; Pear, 2013). It also requires all health plans to provide preventive mental health services at no additional cost (for example, free screenings for depressive disorders) and to allow new and continued membership to individuals who have preexisting mental conditions. Although such changes have heartened mental health advocates, it is not yet clear whether such provisions will in fact result in significantly better treatment for people with psychological problems.

What Are Today’s Leading Theories and Professions?

One of the most important developments in the clinical field has been the growth of numerous theoretical perspectives that now coexist in the field. Before the 1950s, the psychoanalytic perspective, with its emphasis on unconscious psychological problems as the cause of abnormal behavior, was dominant. Then the discovery of effective psychotropic drugs inspired new respect for the somatogenic, or biological, view. As you will see in Chapter 3, other influential perspectives that have emerged since the 1950s are the behavioral, cognitive, humanistic-existential, and sociocultural schools of thought. At present, no single viewpoint dominates the clinical field as the psychoanalytic perspective once did. In fact, the perspectives often conflict and compete with one another, yet in some instances they complement one another and together provide more complete explanations and treatments for psychological disorders.

In addition, a variety of professionals now offer help to people with psychological problems. Before the 1950s, psychotherapy was offered only by psychiatrists, physicians who complete three to four additional years of training after medical school (a residency) in the treatment of abnormal mental functioning. After World War II, however, with millions of soldiers returning home to countries throughout North America and Europe, the demand for mental health services expanded so rapidly that other professional groups had to step in to fill the need.

Among those other groups are clinical psychologists—professionals who earn a doctorate in clinical psychology by completing four to five years of graduate training in abnormal functioning and its treatment and also complete a one-year
An internship in a mental health setting. Psychotherapy and related services are also provided by counseling psychologists, educational and school psychologists, psychiatric nurses, marriage therapists, family therapists, and—the largest group—clinical social workers (see Table 1-2). Each of these specialties has its own graduate training program. Theoretically, each conducts therapy in a distinctive way, but in reality clinicians from the various specialties often use similar techniques.

A related development in the study and treatment of mental disorders since World War II has been a growing appreciation of the need for effective research (NIMH, 2011). Clinical researchers have tried to determine which concepts best explain and predict abnormal behavior, which treatments are most effective, and what kinds of changes may be required. Well-trained clinical researchers conduct studies in universities, medical schools, laboratories, mental hospitals, mental health centers, and other clinical settings throughout the world. Their work has produced important discoveries and has changed many of our ideas about abnormal psychological functioning.

### Technology and Mental Health

Technology is always changing and, like most other fields, the mental health field is in the position of trying to keep pace with that change. This is not a new state of affairs. Technological change occurred 25, 50, 100 years ago and beyond. What is new, however, is the breathtaking rate of technological change that characterizes today’s world. This growth has begun to have significant effects—both positive and negative—on the mental health field, and it will undoubtedly affect the field even more in the coming years.

Let’s consider just a small sample of the ways that the mental health field has been affected by recent technological advances. You will come across these and many others throughout the textbook.

Our digital world provides new triggers and vehicles for the expression of abnormal behavior. As you’ll see in Chapter 12, for example, many individuals who grapple with gambling disorder have found the ready availability of Internet gambling to be all too inviting. Similarly, the Internet, texting, and social media have become convenient tools for those who wish to stalk or bully others, express sexual exhibitionism, or pursue pedophilic desires (Taylor & Quayle, 2010). Likewise, some clinicians believe that violent video games may contribute to the development of antisocial behavior, and perhaps even to the onset of conduct disorders among children and teenagers (Zhuo, 2010). And, in the opinion of many clinicians, constant texting, tweeting, and Internet browsing may contribute to shorter attention spans and establish a foundation for attention problems (Richtel, 2010).

### Table 1-2

Profiles of Mental Health Professionals in the United States

<table>
<thead>
<tr>
<th>Degree</th>
<th>Began to Practice</th>
<th>Current Number</th>
<th>Average Annual Salary</th>
<th>Percent Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrists</td>
<td>MD, DO</td>
<td>1840s</td>
<td>50,000</td>
<td>$144,020</td>
</tr>
<tr>
<td>Psychologists</td>
<td>PhD, PsyD, EdD</td>
<td>Late 1940s</td>
<td>174,000</td>
<td>$63,000</td>
</tr>
<tr>
<td>Social workers</td>
<td>MSW, DSW</td>
<td>Early 1950s</td>
<td>607,000</td>
<td>$43,040</td>
</tr>
<tr>
<td>Counselors</td>
<td>Various</td>
<td>Early 1950s</td>
<td>475,000</td>
<td>$47,530</td>
</tr>
</tbody>
</table>


### Gender Shift

<table>
<thead>
<tr>
<th>Gender Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>28% Psychologists in 1978 who were female</td>
</tr>
<tr>
<td>52% Psychologists today who are female</td>
</tr>
<tr>
<td>77% Current undergraduate psychology majors who are female</td>
</tr>
<tr>
<td>72% Current psychology graduate students who are female</td>
</tr>
</tbody>
</table>

(Cherry, 2014; Carey, 2011; Cynkar, 2007; Barber, 1999)
A number of clinicians also worry that social networking can contribute to psychological dysfunctioning in certain cases. On the positive side, research indicates that, on average, social media users maintain more close relationships than other people do, receive more social support, are more trusting and open to differing points of view, and are more likely to participate in groups and lead active lives (Hampton et al., 2011; Rainie et al., 2011). On the negative side, however, there is research suggesting that social networking sites may provide a new venue for peer pressure that increases social anxiety in some adolescents (Charles, 2011; Hampton et al., 2011). The sites may, for example, cause some people to develop fears that others in their network will exclude them socially. Similarly, there is clinical concern that sites such as Facebook may facilitate shy or socially anxious people’s withdrawal from valuable face-to-face relationships.

In addition, the face of clinical treatment is constantly changing in our fast-moving digital world. The use of cybertherapy, for example, is growing by leaps and bounds as a treatment option (Carrard et al., 2011; Pope & Vasquez, 2011). As you’ll see in Chapter 3, cybertherapy takes such forms as long-distance therapy between clients and therapists using Skype, therapy offered by computer programs, treatment enhanced by the use of video game–like avatars and other virtual reality experiences, and Internet–based support groups. Similarly, countless Web sites offer a wealth of mental health information, enabling people to better inform themselves, their friends, and their family members about psychological dysfunctioning and treatment options. And literally thousands of apps are devoted to relaxing people, cheering them up, or otherwise improving their psychological states (see MindTech).

Public Opinion: Who is “Mentally Ill”?

- According to surveys, 2 percent of the public believe that people who see a therapist are mentally ill.
- Approximately 37 percent believe that individuals who are prescribed medications by a psychiatrist are mentally ill.
- Around 44 percent believe voluntary patients in a mental hospital are mentally ill.
- Around 70 percent believe that involuntary patients in a mental hospital are mentally ill.

(Miller, 2014)

MindTech

Mental Health Apps Explode in the Marketplace

About a decade ago, some clinicians and researchers began using text messages to help track the behaviors, thoughts, and emotions of clients with psychological problems (Bauer, 2003). That pioneering work has mushroomed into an industry of smartphone apps that often help provide mental health assistance to consumers (Sifferlin, 2013). There are, in fact, now thousands of such apps in the marketplace—many of them free, the rest low in cost (Saedi, 2012).

Many of these apps provide individuals with mental health education and resources; others help users to keep track of their shifting moods, thoughts, and bodily changes (called biometrics); still others are interactive and are designed to serve as co-therapists or even substitute therapists, offering reminders, advice, and exercises in response to the needs and input of users. Some of today’s more popular apps include My Mood Tracker, MindShift, PTSD Coach, Moody Me, Live Happy, Optimism, Moodscope, and Mood 247 (Kiume, 2013; Szalavitz, 2013; Landau, 2012; Saedi, 2012).

Many of today’s apps are promising (Konrath, 2013), and they have increasingly been recommended by therapists and mental health researchers, and even by the National Institutes of Health. But, be aware, most of them are unregulated. Only in the past year has the FDA announced its intention to systematically regulate smartphone apps that monitor health and mental health (Alter, 2013). In the meantime, in the absence of regulation and proper research, consumers and therapists alike would be wise to investigate the reputation, manufacturer, content, and therapeutic principles of apps that they are considering (Sifferlin, 2013).
Unfortunately, as you’ll also see throughout the book, the cybertherapy movement is not without its problems. Along with the wealth of mental health information now available online comes an enormous amount of misinformation about psychological problems and their treatments, offered by persons and sites that at best, are far from knowledgeable. Similarly, the issue of quality control is a major problem for Internet-based therapy, support groups, and the like. Moreover, there are now numerous antitreatment Web sites that try to guide people away from seeking help for their psychological problems (Davey, 2010). In Chapters 4, 9, and 11, for example, you will read about the growing phenomenon of pro-anorexia and pro-suicide Web sites and the dangerous influences they exert on vulnerable people. Clearly, the impact of technological change on the mental health field today is wide-ranging and both positive and negative. Its impact presents formidable challenges for clinicians and researchers alike.

PUTTING IT...together

A Work in Progress

Since ancient times, people have tried to explain, treat, and study abnormal behavior. By examining the responses of past societies to such behaviors, we can better understand the roots of our present views and treatments. In addition, a look backward helps us appreciate just how far we have come—how humane our present views are, how impressive our recent discoveries are, and how important our current emphasis on research is.

At the same time, we must recognize the many problems in abnormal psychology today. The field has yet to agree on one definition of abnormality. It is currently made up of conflicting schools of thought and treatment whose members are often unimpressed by the claims and accomplishments of the others. And clinical practice is carried out by a variety of professionals trained in different ways.

As you travel through the topics in this book, keep in mind the field’s current strengths and weaknesses, the progress that has been made, and the journey that lies ahead. Perhaps the most important lesson to be learned from our look at the history of this field is that our current understanding of abnormal behavior represents...
a work in progress. The clinical field stands at a crossroads, with some of the most important insights, investigations, and changes yet to come.

How, then, should you proceed in your study of abnormal psychology? To begin with, you need to learn about the basic tools and perspectives that today’s scientists and practitioners find most useful. This is the task we turn to in the next several chapters. Chapter 2 describes the research strategies that are currently informing our knowledge of abnormal functioning. Chapter 3 then examines the range of views that influence today’s clinical theorists and practitioners. Finally, Chapter 4 examines how abnormal behaviors are being assessed, diagnosed, and treated. Later chapters present the major categories of psychological abnormality as well as the leading explanations and treatments for each of them. In the final chapter, you will see how the science of abnormal psychology and its professionals address current social issues and interact with legal, social, and other institutions in our world.

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**BETWEEN THE LINES**

**Famous Psych Lines from the Movies: Take 2**

“The hallmark of a sociopath is a lack of empathy.” (Gone Girl, 2014)

“Do you have any idea how crazy you are?” (No Country for Old Men, 2007)

“Are you talkin’ to me?” (Taxi Driver, 1976)

“Mother’s not herself today.” (Psycho, 1960)

“Dave, my mind is going. I can feel it.” (A Space Odyssey, 1968)

“I’m not going to be ignored!” (Fatal Attraction, 1987)

“I begged you to get some therapy.” (Tootsie, 1982)

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**SUMMING UP**

- **WHAT IS PSYCHOLOGICAL ABNORMALITY?** Abnormal functioning is generally considered to be deviant, distressful, dysfunctional, and dangerous. Behavior must also be considered in the context in which it occurs, however, and the concept of abnormality depends on the norms and values of the society in question. pp. 2–3

- **WHAT IS TREATMENT?** Therapy is a systematic process for helping people overcome their psychological difficulties. It typically requires a patient, a therapist, and a series of therapeutic contacts. pp. 6–7

- **HOW WAS ABNORMALITY VIEWED AND TREATED IN THE PAST?** The history of psychological disorders stretches back to ancient times. Prehistoric societies apparently viewed abnormal behavior as the work of evil spirits. There is evidence that Stone Age cultures used trephination, a primitive form of brain surgery, to treat abnormal behavior. People of early societies also sought to drive out evil spirits by exorcism. pp. 8–9

- **GREEKS AND ROMANS** Physicians of the Greek and Roman empires offered more enlightened explanations of mental disorders. Hippocrates believed that abnormal behavior was caused by an imbalance of the four bodily fluids, or humors: black bile, yellow bile, blood, and phlegm. Treatment consisted of correcting the underlying physical pathology through diet and lifestyle. p. 10

- **THE MIDDLE AGES** In the Middle Ages, Europeans returned to demonological explanations of abnormal behavior. The clergy was very influential and held that mental disorders were the work of the devil. As the Middle Ages drew to a close, such explanations and treatments began to decline, and people with mental disorders were increasingly treated in hospitals instead of by the clergy. pp. 10–11

- **THE RENAISSANCE** Care of people with mental disorders continued to improve during the early part of the Renaissance. Certain religious shrines became dedicated to the humane treatment of such individuals. By the middle of the sixteenth century, however, persons with mental disorders were being warehoused in asylums. pp. 11–12

- **THE NINETEENTH CENTURY** Care of those with mental disorders started to improve again in the nineteenth century. In Paris, Philippe Pinel started the movement toward moral treatment. Similar reforms were brought to...
England by William Tuke. In the United States, Dorothea Dix spearheaded a movement to ensure legal rights and protection for people with mental disorders and to establish state hospitals for their care. Unfortunately, the moral treatment movement disintegrated by the late nineteenth century, and mental hospitals again became warehouses where inmates received minimal care. pp. 12–13

THE EARLY TWENTIETH CENTURY The turn of the twentieth century saw the return of the somatogenic perspective, the view that abnormal psychological functioning is caused primarily by physical factors. Key to this development were the work of Emil Kraepelin in the late 1800s and the finding that general paresis was caused by the organic disease syphilis. The same period saw the rise of the psychogenic perspective, the view that the chief causes of abnormal functioning are psychological. An important factor in its rise was the use of hypnotism to treat patients with hysterical disorders. Sigmund Freud’s psychogenic approach, psychoanalysis, eventually gained wide acceptance and influenced future generations of clinicians. pp. 16–17

CURRENT TRENDS There have been major changes over the past 50 years in the understanding and treatment of abnormal functioning. In the 1950s, researchers discovered a number of new psychotropic medications, drugs that mainly affect the brain and reduce many symptoms of mental dysfunctioning. Their success contributed to a policy of deinstitutionalization, under which hundreds of thousands of patients were released from public mental hospitals. In addition, outpatient treatment has become the primary approach for most people with mental disorders, both mild and severe; prevention programs are growing in number and influence; the field of multicultural psychology has begun to influence how clinicians view and treat abnormality; and insurance coverage is having a significant impact on the way treatment is conducted.

It is also the case that a variety of perspectives and professionals have come to operate in the field of abnormal psychology, and many well-trained clinical researchers now investigate the field’s theories and treatments. And finally, the remarkable technological advances of recent times have affected the mental health field. In particular, they have contributed to various kinds of cybertherapy and to new triggers and vehicles for psychopathology. pp. 18–25

BETWEEN THE LINES

Psychiatrists Nix Insurance Payments

• Only 55 percent of psychiatrists are willing to accept insurance payments.
• Almost 90 percent of all other kinds of physicians accept insurance payments.
• Only 43 percent of psychiatrists accept Medicaid, insurance for low-income people.
• Almost 75 percent of all other kinds of physicians accept Medicaid.

(Pear, 2013)

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Each of these statements was once accepted as gospel. Had their accuracy not been tested, had they been judged on the basis of conventional wisdom alone, had new ideas not been proposed and investigated, human knowledge and progress would have been severely limited. What enabled thinkers to move beyond such misperceptions? The answer, quite simply, is research, the systematic search for facts through the use of careful observations and investigations.

Research is the key to accuracy in all fields of study; it is particularly important in abnormal psychology because a wrong belief in this field can lead to great suffering. Consider, for example, schizophrenia and the treatment procedure known as the lobotomy. Schizophrenia is a severe disorder that causes people to lose contact with reality. Their thoughts, perceptions, and emotions become distorted and disorganized, and their behavior may be bizarre and withdrawn. For the first half of the twentieth century, this condition was attributed to poor parenting. Clinicians blamed schizophrenogenic (“schizophrenia-causing”) mothers for the disorder—women they described as cold, domineering, and unresponsive to their children’s needs. As you will see in Chapter 14, this widely held belief turned out to be wrong (Singh et al., 2014).

During the same era, practitioners developed a surgical procedure that supposedly cured schizophrenia. In this procedure, called a lobotomy, a pointed
Instrument was inserted into the frontal lobe of the brain and rotated, destroying much brain tissue (Faria, 2013). Early clinical reports described lobotomized patients as showing near-miraculous improvement. This impression, too, turned out to be wrong, although the mistake wasn’t discovered until tens of thousands of people had been lobotomized. Far from curing schizophrenia, lobotomies caused irreversible brain damage that left many patients withdrawn and even stuporous.

These errors underscore the importance of scientific research in abnormal psychology. Theories and treatments that seem effective in individual instances may prove disastrous to other people in different situations. Only by fully testing a theory or technique on representative groups of individuals can clinicians evaluate the accuracy, effectiveness, and safety of their ideas and techniques. Until clinical researchers conducted properly designed studies, millions of parents, already heartbroken by their children’s schizophrenia, were additionally labeled as the primary cause of the disorder, and countless people with schizophrenia, already debilitated by their symptoms, were made permanently apathetic and spiritless by a lobotomy.

Clinical researchers face certain challenges that make their work very difficult. They must, for example, figure out how to measure such elusive concepts as unconscious motives, private thoughts, mood changes, and human potential. They must consider the different cultural backgrounds, races, and genders of the people they choose to study. And, as we are reminded in PsychWatch on the next page, they must always ensure that the rights of their research participants, both human and animal, are not violated (Victor, 2013; Hobson-West, 2010). Despite such difficulties, research in abnormal psychology has taken giant steps forward, especially during the past 40 years. In the past, most clinical researchers were limited by a lack of training and by less-than-useful techniques. Now graduate clinical programs train large numbers of students to design and conduct proper studies on clinical topics. Moreover, the development of new research tools has greatly improved our understanding and treatment of psychological dysfunction. It may even help to prevent psychological disorders.

What Do Clinical Researchers Do?

Clinical researchers, also called clinical scientists, try to discover universal laws, or principles, of abnormal psychological functioning. They search for a general, or nomothetic, understanding of the nature, causes, and treatments of abnormality (“nomothetic” is derived from the Greek nomothetes, “lawgiver”) (DeMatteo et al., 2010). They do not typically assess, diagnose, or treat individual clients; that is the job of clinical practitioners, who seek an idiosyncratic, or individualistic, understanding of abnormal behavior. You will read about the work of practitioners in later chapters.

To gain a nomothetic understanding of abnormal psychology, clinical researchers, like scientists in other fields, use the scientific method—that is, they collect and evaluate information through careful observations. These observations in turn enable them to pinpoint and explain relationships between variables. Simply stated, a variable is any characteristic or event that can vary, whether from time to time, from
place to place, or from person to person. Age, sex, and race are human variables. So are eye color, occupation, and social status. Clinical researchers are interested in variables such as childhood upsets, present life experiences, moods, social functioning, and responses to treatment. They try to determine whether two or more such variables change together and whether a change in one variable causes a change in another. Will the death of a parent cause a child to become depressed? If so, will a given treatment reduce that depression?

Such questions cannot be answered by logic alone because scientists, like all human beings, frequently make errors in thinking. Thus, clinical researchers must depend mainly on three methods of investigation: the case study, which typically is focused on one individual, and the correlational method and experimental method, approaches that are usually used to gather information about many individuals. Each is best suited to certain kinds of circumstances and questions. As a group, these methods enable scientists to form and test hypotheses, or hunches, that certain variables are related in certain ways—and to draw broad conclusions as to why they are so. More properly, a hypothesis is a tentative explanation offered to provide a basis for an investigation.

**PsychWatch**

**Animals Have Rights**

For years, researchers have learned much about abnormal human behavior from experiments with animals (Hawkes, 2013). Animals have been shocked, prematurely separated from their parents, and starved. They have had their brains surgically changed and have even been killed, or “sacrificed,” so that researchers could autopsy them. It is estimated that medical animal research (for example, cardiovascular research) has helped increase the life expectancy of humans by almost 24 years. Similarly, animal research has been key to the development of many medications for psychological disorders, leading to a savings of hundreds of billions of dollars every year in the United States alone (Henderson et al., 2013; Shields, 2010; Lasker Foundation, 2000). Nevertheless, concerns remain: Are such actions always ethically acceptable?

Animal rights activists say no (Grimm, 2013; McCance, 2011; Fellenz, 2007). They have called such undertakings cruel and unnecessary and have fought many forms of animal research with legal protests and demonstrations. Some have even harassed scientists and vandalized their labs (Conn & Rantin, 2010). In turn, some researchers have accused activists of caring more about animals than about human beings. In response to this controversy, a number of state courts, government agencies, and the American Psychological Association have issued rules and guidelines for animal research. But the battle still goes on.

Where does the public stand on this issue (Hobson-West, 2010)? In surveys, 43 to 64 percent of the respondents say that they dislike animal research, but most say they can “accept” it as long as it is for medical purposes (Statistic Brain, 2014; MORI, 2005, 1999). People in such surveys tend to approve of experiments that use mice or rats more than those that use monkeys. Most of them disapprove of experiments that bring pain to animals, except when the investigations are seeking a cure for childhood leukemia, AIDS, or other life-threatening problems (Kageyama et al., 2013).
The Case Study

A case study is a detailed description of a person’s life and psychological problems. It describes the person’s history, present circumstances, and symptoms. It may also include speculation about why the problems developed, and it may describe the person’s treatment (Yin, 2013; Lee, Mishna, & Brennenstuhl, 2010).

In his famous case study of Little Hans (1909), Sigmund Freud discusses a 4-year-old boy who developed a fear of horses. Freud gathered his material from detailed letters sent to him by Hans’s father, a physician who had attended lectures on psychoanalysis, and from his own limited interviews with the child. Freud’s study runs 140 pages in his Collected Papers, so only key excerpts are presented here.

One day while Hans was in the street he was seized with an attack of morbid anxiety. . . . [Hans’s father wrote:] “He began to cry and asked to be taken home. . . . In the evening he grew visibly frightened; he cried and could not be separated from his mother. . . . [When taken for a walk the next day] again he began to cry, did not want to start, and was frightened. . . . On the way back from Schönbrunn he said to his mother, after much internal struggling: ‘I was afraid a horse would bite me.’ . . . In the evening he . . . had another attack similar to that of the previous evening. . . .”

But the beginnings of this psychological situation go back further still. . . . The first reports of Hans date from a period when he was not quite three years old. At that time, by means of various remarks and questions, he was showing a quite peculiarly lively interest in that portion of his body which he used to describe as his “widdler” [his word for penis]. . . .

When he was three and a half his mother found him with his hand to his penis. She threatened him in these words: “If you do that, I shall send for Dr. A. to cut off your widdler. And then what’ll you widdle with?” . . . This was the occasion of his acquiring [a] “castration complex.” . . .

[At the age of four, Hans entered] a state of intensified sexual excitement, the object of which was his mother. The intensity of this excitement was shown by . . . two attempts at seducing his mother. [One such attempt, occurring just before the outbreak of his anxiety, was described by his father:] “This morning Hans was given his usual daily bath by his mother and afterwards dried and powdered. As his mother was powdering round his penis and taking care not to touch it, Hans said: ‘Why don’t you put your finger there?’ . . .”

. . . The father and son visited me during my consulting hours. . . . Certain details which I now learnt—to the effect that [Hans] was particularly bothered by what horses wear in front of their eyes and by the black round their mouths—were certainly not to be explained from what we knew. But as I saw the two of them sitting in front of me and at the same time heard Hans’s description of his anxiety-horses, a further piece of the solution shot through my mind. . . . I asked Hans jokingly whether his horses wore eyeglasses, to which he replied that they did not. I then asked him whether his father wore eyeglasses, to which, against all the evidence, he once more said no. Finally I asked him whether by “the black round the mouth” he meant a moustache; and I then disclosed to him that he was afraid of his father, precisely because he was so fond of his mother. It must be, I told him, that he thought his father was angry with him on that account; but this was not so, his father was fond of him in spite of it, and he might admit everything to him without any fear. Long before he was in the world, I went on, I had known that a little Hans would come who would be so fond of his mother that he would be bound to feel afraid of his father because of it. . . .

By enlightening Hans on this subject I had cleared away his most powerful resistance. . . . [T]he little patient summoned up courage to describe the details of his phobia, and soon began to take an active share in the conduct of the analysis.
It was only then that we learnt [that Hans] was not only afraid of horses biting him—he was soon silent upon that point—but also of carts, of furniture-vans, and of buses . . ., of horses that started moving, of horses that looked big and heavy, and of horses that drove quickly. The meaning of these specifications was explained by Hans himself: he was afraid of horses falling down, and consequently incorporated in his phobia everything that seemed likely to facilitate their falling down.

It was at this stage of the analysis that he recalled the event, insignificant in itself, which immediately preceded the outbreak of the illness and may no doubt be regarded as the exciting cause of the outbreak. He went for a walk with his mother, and saw a bus-horse fall down and kick about with its feet. This made a great impression on him. He was terrified, and thought the horse was dead; and from that time on he thought that all horses would fall down. His father pointed out to him that when he saw the horse fall down he must have thought of him, his father, and have wished that he might fall down in the same way and be dead. Hans did not dispute this interpretation. . . From that time forward his behavior to his father was unconstrained and fearless, and in fact a trifle overbearing.

It is especially interesting . . . to observe the way in which the transformation of Hans's libido into anxiety was projected on to the principal object of his phobia, on to horses. Horses interested him the most of all the large animals; playing at horses was his favorite game with the older children. I had a suspicion—and this was confirmed by Hans's father when I asked him—that the first person who had served Hans as a horse must have been his father. . . When repression had set in and brought a revulsion of feeling along with it, horses, which had till then been associated with so much pleasure, were necessarily turned into objects of fear.

[Hans later reported] two concluding phantasies, with which his recovery was rounded off. One of them, that of [a] plumber giving him a new and . . . bigger widdler, was . . . a triumphant wish-phantasy, and with it he overcame his fear of castration. . . . His other phantasy, which confessed to the wish to be married to his mother and to have many children by her . . . corrected that portion of those thoughts which was entirely unacceptable; for, instead of killing his father, it made him innocuous by promoting him to a marriage with Hans's grandmother. With this phantasy both the illness and the analysis came to an appropriate end.

(Freud, 1909)

Most clinicians take notes and keep records in the course of treating their patients, and some, like Freud, further organize such notes into a formal case study to be shared with other professionals. The clues offered by a case study may help a clinician better understand or treat the person under discussion (Yin, 2013; Stricker & Trierweiler, 1995). In addition, case studies may play nomothetic roles that go far beyond the individual clinical case.

How Are Case Studies Helpful?

Case studies can be a source of new ideas about behavior and “open the way for discoveries” (Bolgar, 1965). Freud’s theory of psychoanalysis was based mainly on the patients he saw in private practice. He pored over their case studies, such as the one he wrote about Little Hans, to find what he believed to be broad psychological processes and principles of development. In addition, a case study may offer tentative support for a theory. Freud used case studies in this way as well, regarding them as evidence for the accuracy of his ideas. Conversely, case studies may serve to challenge a theory’s assumptions (Yin, 2013; Elms, 2007).

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**All About Freud**

- Freud’s parents often favored Sigmund over his siblings.
- Freud’s fee for one session of therapy was $20.
- For almost 40 years, Freud treated patients 10 hours per day, 5 or 6 days per week.
- Freud’s four sisters died in Nazi concentration camps.
- Freud was nominated for the Nobel Prize in 12 different years, but never won.
- In 1929, the Nobel Committee for Medicine hired a consultant who concluded that Freud’s work was of no scientific value.

Case studies may also show the value of new therapeutic techniques or unique applications of existing techniques. The psychoanalytic principle that says patients may benefit from discussing their problems and discovering underlying psychological causes, for example, has roots in the famous case study of Anna O., presented by Freud’s collaborator Josef Breuer, a case you will read about in Chapter 3. Similarly, Freud believed that the case study of Little Hans demonstrated the therapeutic potential of a verbal approach for children as well as for adults.

Finally, case studies may offer opportunities to study unusual problems that do not occur often enough to permit a large number of observations (Goodwin & Goodwin, 2012). For years, information about dissociative identity disorder (previously called multiple personality disorder) was based almost exclusively on case studies, such as a famous case popularly referred to as The Three Faces of Eve, a clinical account of Chris Sizemore, a woman who displayed three alternating personalities, each having a separate set of memories, preferences, and personal habits (Thigpen & Cleckley, 1957).

What Are the Limitations of Case Studies?

Case studies also have limitations (Yin, 2013; Girden & Kabacoff, 2011). First, they are reported by biased observers, that is, by therapists who have a personal stake in seeing their treatments succeed. These therapists must choose what to include in a case study, and their choices may at times be self-serving. Second, case studies rely on subjective evidence. Is a client’s problem really caused by the events that the therapist or client says are responsible? After all, those are only a fraction of the events that may be contributing to the situation. When investigators are able to rule out all possible causes except one, a study is said to have internal accuracy, or internal validity (Jackson, 2012). Obviously, case studies rate low on that score.

Another problem with case studies is that they provide little basis for generalization. Even if we agree that Little Hans developed a dread of horses because he was terrified of castration and feared his father, how can we be confident that other people’s phobias are rooted in the same kinds of causes? Events or treatments that seem important in one case may be of no help at all in efforts to understand or treat others. When the findings of an investigation can be generalized beyond the immediate study, the investigation is said to have external accuracy, or external validity (Jackson, 2012). Case studies rate low on external validity, too (Goodwin & Goodwin, 2012).

The limitations of the case study are largely addressed by two other methods of investigation: the correlational method and the experimental method. These methods do not offer the rich detail that makes case studies so interesting, but they do help investigators draw broad conclusions about abnormality in the population at large. Thus they are now the preferred methods of clinical investigation.

Three features of the correlational and experimental methods enable clinical investigators to gain general, or nomothetic, insights: (1) The researchers typically observe many individuals (see MindTech on the next page). That way, they can collect enough information, or data, to support a conclusion. (2) The researchers apply procedures uniformly. Other researchers can thus repeat, or replicate, a particular study to see whether it consistently gives the same findings. (3) The researchers use statistical tests to analyze the results of a study. These tests can help indicate whether broad conclusions are justified.
Correlation is the degree to which events or characteristics vary with each other. The correlational method is a research procedure used to determine this “co-relationship” between variables (Jackson, 2013; Girden & Kabacoff, 2011). This method can be used, for example, to answer the question, “Is there a correlation between the amount of stress in people’s lives and the degree of depression they experience?”
experience?” That is, as people keep experiencing stressful events, are they increasingly likely to become depressed?

To test this particular question, researchers have collected life stress scores (for example, the number of threatening events experienced during a certain period of time) and depression scores (for example, scores on a depression survey) from individuals and have correlated these scores. The people who are chosen for a study are its subjects, or participants, the term preferred by today’s investigators. The participants in a given study are collectively called its sample. A sample must be representative of the larger population that the researchers wish to understand. Otherwise the relationship found in the study may not apply elsewhere in the real world—it may not have external validity. If researchers were to find a correlation between life stress and depression in a sample consisting entirely of children, for example, they could not draw clear conclusions about what, if any, correlation exists among adults.

**Describing a Correlation**

Suppose you were to use the correlational method to conduct a study of depression. You would collect life stress scores and depression scores for 10 people and plot the scores on a graph, as shown in Figure 2-1. As you can see, the participant named Jim has a recent life stress score of 7, meaning seven threatening events over the past 3 months; he also has a depression score of 25. Thus he is “located” at the point on the graph where these two scores meet. The graph provides a visual representation of your data. Here, notice that the data points all fall roughly along a straight line that slopes upward. You would draw the line so that the data points are as close to it as possible. This line is called the line of best fit.

The line of best fit in Figure 2-1 slopes upward and to the right, indicating that the variables under examination are increasing or decreasing together. That is, the greater someone’s life stress score, the higher his or her score on the depression scale. When variables change the same way, their correlation is said to have a positive direction and is referred to as a positive correlation. Most studies of life stress and depression have indeed found a positive correlation between those two variables (Monroe et al., 2014; Slavich & Irwin, 2014).

**In Their Words**

“The temptation to form premature theories upon insufficient data is the bane of our profession.”

Sherlock Holmes in *The Valley of Fear*, 1914
Correlations can have a negative rather than a positive direction. In a negative correlation, the value of one variable increases as the value of the other variable decreases. Researchers have found, for example, a negative correlation between depression and activity level. The greater one’s depression, the lower the number of one’s activities. When the scores of a negative correlation are plotted, they produce a downward-sloping graph, like the one shown in Figure 2-2.

There is yet a third possible outcome for a correlational study. The variables under study may be unrelated, meaning that there is no consistent relationship between them. As the measures of one variable increase, those of the other variable sometimes increase and sometimes decrease. The graph of this outcome looks like Figure 2-3. Here the line of best fit is horizontal, with no slope at all. Studies have found that depression and intelligence are unrelated, for example.

In addition to knowing the direction of a correlation, researchers need to know its magnitude, or strength (see Figure 2-4). That is, how closely do the two variables correspond? Does one always vary along with the other, or is their relationship less exact? When two variables are found to vary together very closely in person after person, the correlation is said to be high, or strong.

Look again at Figure 2-1. In this graph of a positive correlation between depression and life stress, the data points all fall very close to the line of best fit. Researchers can predict each person’s score on one variable with a high degree of confidence if they know his or her score on the other. But what if the graph of the correlation between depression and life stress looked more like Figure 2-4? In this figure the data points are loosely scattered around the line of best fit rather than hugging it closely. In this case, researchers could not predict with as much accuracy an individual’s score on one variable from his or her score on the other variable. The correlation in Figure 2-1 is stronger, or greater in magnitude, than that in Figure 2-4.

**Stress and depression**

In Norcross, Georgia, friends and workers bring all of this family’s possessions to the curb after their bank has foreclosed on their mortgage, another casualty of the subprime loan crisis and economic downturn. Researchers have found that the stress produced by the loss of one’s home is often accompanied by the onset of depression and other psychological symptoms.

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**figure 2-3**

No correlation The relationship between intelligence and feelings of depression shown by this hypothetical sample is a "near-zero" correlation.

**figure 2-4**

Magnitude of correlation The relationship between amount of recent stress and feelings of depression shown by this hypothetical sample is a "moderately positive" correlation.
The direction and magnitude of a correlation are often calculated numerically and expressed by a statistical term called the correlation coefficient, symbolized by the letter $r$. The correlation coefficient can vary from +1.00, which indicates a perfect positive correlation between two variables, down to −1.00, which represents a perfect negative correlation. The sign of the coefficient (+ or −) signifies the direction of the correlation; the number represents its magnitude. An $r$ of .00 reflects a zero correlation, or no relationship between variables. The closer $r$ is to .00, the weaker, or lower in magnitude, the correlation. Thus correlations of +.75 and −.75 are of equal magnitude and equally strong, whereas a correlation of +.25 is weaker than either.

Everyone’s behavior is changeable, and many human responses can be measured only approximately. Most correlations found in psychological research, therefore, fall short of perfect positive or negative correlation. For example, one early study of life stress and depression, with a sample of 68 adults, found a correlation of .53 (Miller, Ingham, & Davidson, 1976). Although hardly perfect, a correlation of this magnitude is considered large in psychological research.

**When Can Correlations Be Trusted?**

Scientists must decide whether the correlation they find in a given sample of participants accurately reflects a real correlation in the general population. Could the observed correlation have occurred by mere chance? Scientists can never know for certain, but they can test their conclusions with a statistical analysis of their data, using principles of probability. In essence, they ask how likely it is that the study’s particular findings have occurred by chance. If the statistical analysis indicates that chance is unlikely to account for the correlation they found, researchers may conclude that their findings reflect a real correlation in the general population.

A cutoff point helps researchers make this decision. By convention, if there is less than a 5 percent probability that a study’s findings are due to chance (signified as $p < .05$), the findings are said to be statistically significant and are thought to reflect the larger population. In the life stress study described earlier, a statistical analysis indicated a probability of less than 5 percent that the +.53 correlation found in the sample was due to chance. Therefore, the researchers concluded with some confidence that among adults in general, depression does tend to rise along with the amount of recent stress in a person’s life. Generally, our confidence increases with the magnitude of the correlation and the size of the sample. The larger they each are, the more likely it is that a correlation will be statistically significant.

**What Are the Merits of the Correlational Method?**

The correlational method has certain advantages over the case study (see Table 2–1). First, it possesses high external validity. Because researchers measure their variables, observe large samples, and apply statistical analyses, they are in a better position to generalize their correlations to people beyond the ones they have studied. Furthermore, researchers can easily repeat correlational studies using new samples of participants to check the results of earlier studies.

On the other hand, correlational studies, like case studies, lack internal validity (Jackson, 2012; Remler & Van Ryzin, 2011). Although correlations allow researchers to describe the relationship between two variables, they do not explain the relationship. When we look at the positive correlation found in many life stress studies, we may be tempted to conclude that increases in recent life stress cause people to feel more depressed. In fact, however, the two variables may be
correlated for any one of three reasons: (1) Life stress may cause depression. (2) Depression may cause people to experience more life stress (for example, a depressive approach to life may cause people to perform poorly at work or may interfere with social relationships). (3) Depression and life stress may each be caused by a third variable, such as financial problems (Gutman & Nemeroff, 2011).

Although correlations say nothing about causation, they can still be of great use to clinicians. Clinicians know, for example, that suicide attempts increase as people become more depressed. Thus, when they work with severely depressed clients, they stay on the lookout for signs of suicidal thinking. Perhaps depression directly causes suicidal behavior, or perhaps a third variable, such as a sense of hopelessness, causes both depression and suicidal thoughts. Whatever the cause, just knowing that there is a correlation may enable clinicians to take measures (such as hospitalization) to help save lives.

Of course, in other instances, clinicians do need to know whether one variable causes another. Do parents’ marital conflicts cause their children to be more anxious? Does job dissatisfaction lead to feelings of depression? Will a given treatment help people to cope more effectively in life? Questions about causality call for the experimental method, as you will see later.

Special Forms of Correlational Research

Epidemiological studies and longitudinal studies are two kinds of correlational research used widely by clinical investigators. Epidemiological studies reveal the incidence and prevalence of a disorder in a particular population (Kasl & Jones, 2011). Incidence is the number of new cases that emerge during a given period of time. Prevalence is the total number of cases in the population during a given period; prevalence includes both existing and new cases. Many researchers also refer to epidemiological studies as “descriptive studies” because the goal of such investigations is largely to describe the incidence or prevalence of a disorder “without trying to predict or explain when or why it occurs” (Compas & Gotlib, 2002, p. 69).

Over the past 40 years, clinical researchers throughout the United States have worked on one of the largest epidemiological studies of mental disorders ever conducted, called the Epidemiologic Catchment Area Study (Ramsey et al., 2013; Maulik et al., 2010). They have interviewed more than 20,000 people in five cities to determine the prevalence of many psychological disorders and the treatment programs used. Two other large-scale epidemiological studies in the United States, the National Comorbidity Survey and the National Comorbidity Survey Replication, have questioned more than 9,000 individuals (Martin, Neighbors, & Griffith,
All these studies have been further compared with epidemiological studies of specific groups, such as Hispanic and Asian American populations, or with epidemiological studies conducted in other countries, to see how rates of mental disorders and treatment programs vary from group to group and from country to country (Jimenez et al., 2010).

Such epidemiological studies have helped researchers identify groups at risk for particular disorders. Women, it turns out, have a higher rate of anxiety disorders and depression than men, while men have a higher rate of alcoholism than women. Elderly people have a higher rate of suicide than young people. Hispanic Americans experience posttraumatic stress disorder more than other racial and ethnic groups in the United States. And persons in some countries have higher rates of certain mental disorders than those in other countries. Eating disorders such as anorexia nervosa, for example, appear to be more common in Western countries than in non-Western ones. These trends may lead researchers to suspect that something unique about certain groups or settings is helping to cause particular disorders. Declining health in elderly people, for example, may make them more likely to commit suicide. Similarly, the pressures or attitudes common in one country may be responsible for a rate of mental dysfunctioning that differs from the rate found in another. Yet, like other forms of correlational research, epidemiological studies alone cannot confirm such suspicions.

In longitudinal studies (also called high-risk or developmental studies), correlational studies of another kind, researchers observe the same individuals on many occasions over a long period of time (Jackson, 2012; Girden & Kabacoff, 2011). In several such studies, investigators have observed the progress over the years of normally functioning children whose mothers or fathers suffered from schizophrenia (Rasic et al., 2014; Donatelli et al., 2010; Mednick, 1971). The researchers have found, among other things, that the children of the parents with the most severe cases of schizophrenia were particularly likely to develop a psychological disorder and to commit crimes at later points in their development. Because longitudinal studies report the order of events, their correlations provide clues about which events are more likely to be causes and which are more likely to be consequences. Certainly, for example, the children’s problems did not cause their parents’ schizophrenia. But longitudinal studies still cannot pinpoint causation. Did the children who developed psychological problems inherit a genetic factor? Or did their problems result from their parents’ inadequate coping behaviors, their parents’ long absences because of hospitalization, or some other factor? Only experimental studies can supply an answer.

The Experimental Method

An experiment is a research procedure in which a variable is manipulated and the manipulation’s effect on another variable is observed. In fact, most of us perform experiments throughout our lives without knowing that we are behaving so scientifically. Suppose that you go to a party on campus to celebrate the end of midterm exams. As you mix with people at the party, you begin to notice many of them becoming quiet and depressed. It seems the more you talk, the more subdued the other guests become. As the party falls apart before your eyes, you decide you have to do something, but what? Before you can eliminate the problem, you need to know what’s causing it.

Your first hunch may be that something you’re doing is responsible. Perhaps your remarks about academic pressures have been upsetting everyone. You decide to
change the topic to skiing in the mountains of Colorado and to watch for signs of depression in the next round of conversations. The problem seems to clear up; most people now smile and laugh as they chat with you. As a final check of your suspicions, you could go back to talking about school with the next several people you meet. Their dark and dismal reaction would probably convince you that your tendency to talk about school was indeed the cause of the problem.

You have just performed an experiment, testing your hypothesis about a causal relationship between your topic of conversation and the depressed mood of the people around you. You manipulated the variable that you suspected to be the cause (the topic) and then observed the effect of that manipulation on the other variable (the mood of the people around you). In scientific experiments, the manipulated variable is called the independent variable and the variable being observed is called the dependent variable.

To examine the experimental method more fully, let’s consider a question that is often asked by clinicians (Toth et al., 2014; Cuijpers et al., 2013): “Does a particular therapy relieve the symptoms of a particular disorder?” Because this question is about a causal relationship, it can be answered only by an experiment (see Table 2-2). That is, experimenters must give the therapy in question to people who are suffering from a disorder and then observe whether they improve. Here the therapy is the independent variable, and psychological improvement is the dependent variable.

If the true cause of changes in the dependent variable cannot be separated from other possible causes, then an experiment gives very little information. Thus, experimenters must try to eliminate all confounds from their studies—variables other than the independent variable that may also be affecting the dependent variable. When

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**Is animal companionship a form of therapy?**

A patient (right) and therapist (left) feed ring-tailed lemurs at Serengeti Park near Hodenhagen, Germany, as part of a monthly program called “Psychiatric Animal Days.” The program is based on the assumption that animals have a calming and therapeutic effect on people. As many as 400 kinds of therapies are currently used for psychological problems. An experimental design is needed to determine whether this or any other form of treatment causes clients to improve.

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**Most Investigated Questions in Clinical Research**

**Most Common Correlational Questions**

- Are stress and onset of mental disorders related?
- Is culture (or gender or race) generally linked to mental disorders?
- Are income and mental disorders related?
- Are social skills tied to mental disorders?
- Is social support tied to mental disorders?
- Are family conflict and mental disorders related?
- Is treatment responsiveness tied to culture?
- Which symptoms of a disorder appear together?
- How common is a disorder in a particular population?

**Most Common Causal Questions**

- Does factor X cause a disorder?
- Is cause A more influential than cause B?
- How does family communication and structure affect family members?
- How does a disorder affect the quality of a person’s life?
- Does treatment X alleviate a disorder?
- Is treatment X more helpful than no treatment at all?
- Is treatment A more helpful than treatment B?
- Why does treatment X work?
- Can an intervention prevent abnormal functioning?
control group In an experiment, a group of participants who are not exposed to the independent variable.

experimental group In an experiment, the participants who are exposed to the independent variable under investigation.

there are confounds in an experiment, they, rather than the independent variable, may be causing the observed changes.

For example, situational variables, such as the location of the therapy office (say, a quiet country setting) or soothing background music in the office, may have a therapeutic effect on participants in a therapy study. Or perhaps the participants are unusually motivated or have high expectations that the therapy will work, factors that thus account for their improvement. To guard against confounds, researchers should include three important features in their experiments—a control group, random assignment, and a blind design (see MediaSpeak on the next page).

The Control Group

A control group is a group of research participants who are not exposed to the independent variable under investigation but whose experience is similar to that of the experimental group, the participants who are exposed to the independent variable. By comparing the two groups, an experimenter can better determine the effect of the independent variable.

To study the effectiveness of a particular therapy, for example, experimenters typically divide participants into two groups after obtaining their consent to participate in the experiment. The experimental group may come into an office and receive the therapy for an hour, while the control group may simply come into the office for an hour. If the experimenters find later that the people in the experimental group improve more than the people in the control group, they may conclude that the therapy was effective, above and beyond the effects of time, the office setting, and any other confounds. To guard against confounds, experimenters try to provide all participants, both control and experimental, with experiences that are identical in every way—except for the independent variable.

Of course, it is possible that the differences observed between an experimental group and control group have occurred simply by chance. Thus, as with correlational studies, investigators who conduct experiments must do a statistical analysis on their data and find out how likely it is that the observed differences are due to chance. If the likelihood is very low—less than 5 percent ($p < .05$)—the differences between the two groups are considered to be statistically significant, and the experimenter may conclude with some confidence that they are due to the independent variable. As a general rule, if the sample of participants is large, if the difference observed between groups is great, and if the range of scores within each group is small, the findings of an experiment are likely to be statistically significant.

An additional point is worth noting with regard to clinical treatment experiments. It is always important to distinguish between statistical significance and a notion called clinical significance. As you have just read, statistical significance indicates whether a participant’s improvement in functioning—large or small—occurred because of treatment. Clinical significance indicates whether the amount of improvement is meaningful in the individual’s life. Even if the moods of depressed participants improve because of treatment, the individuals may still be too unhappy to enjoy life. Thus, although experimenters can determine statistical significance, only individuals and their clinicians can fully evaluate clinical significance.

Random Assignment

Researchers must also watch out for differences in the makeup of the experimental and control groups since those differences may also confound a study’s results. In a therapy study, for example, the experimenter may unintentionally put wealthier participants in the experimental group and poorer ones in the control group. This difference, rather than their therapy, may be the cause of the greater improvement later found among the experimental participants. To reduce the effects of
In 2001, Dr. Robert L. Spitzer, psychiatrist and professor emeritus of Columbia University, presented a paper at a meeting of the American Psychiatric Association about something called “reparative therapy” [also known as “conversion therapy”] for gay men and women. By undergoing reparative therapy, the paper claimed, gay men and women could change their sexual orientation. Spitzer had interviewed 200 allegedly former-homosexual men and women that he claimed had shown varying degrees of such change; all of the participants provided Spitzer with self reports of their experience with the therapy.

Spitzer, now 79 years old, was no stranger to the controversy surrounding his chosen subject. Thirty years earlier, he had played a leading role in removing homosexuality from the list of mental disorders in the association’s diagnostic manual [DSM-III]. Clearly, his interest in the topic was more than a passing academic curiosity.

Fast forward to 2012, and Spitzer is of quite a different mind. Last month he told a reporter with The American Prospect that he regretted the 2001 study and the effect it had on the gay community, and that he owed the community an apology. And this month he sent a letter to the Archives of Sexual Behavior, which published his work in 2003, asking that the journal retract his paper.

Spitzer’s mission to clean the slate is commendable, but the effects of his work have been coursing through the homosexual community like acid since it made headlines a decade ago. His study was seized upon by anti-homosexual activists and therapists who held up Spitzer’s paper as proof that they could “cure” patients of their sexual orientation.

Spitzer didn’t invent reparative therapy, and he isn’t the only researcher to have conducted studies claiming that it works, but as an influential psychiatrist from a prestigious university, his words carried a lot of weight.

In his recantation of the study, he says that it contained at least two fatal flaws: the self reports from those he surveyed were not verifiable, and he didn’t include a control group of men and women who didn’t undergo the therapy for comparison. Self reports are notoriously unreliable . . . Lack of a control group is a fundamental no-no in social science research across the board. The conclusion is inescapable—Spitzer’s study was simply bad science.

Reading the study now, I’m sure Spitzer is embarrassed by its flaws. Not only did he rely on self reports, but he conducted the participant interviews by phone, which escalates unreliability to the doesn’t-pass-the-laugh-test level. By phone, researchers aren’t able to evaluate essential non-verbal cues that might cast doubts on verbal responses. Phone interviews, along with written interviews, carry too much guesswork baggage to be valuable in a scientific study, and Spitzer certainly knew that.

The object lesson worth drawing from this story is that just one instance of bad science given the blessing of recognized experts can lead to years of damaging lies that snowball out of control. Spitzer cannot be held solely responsible for what happened after his paper was published, but he’d probably agree now that the study should never have been presented in the first place. At the very least, his example may help prevent future episodes of the same.

May 19, 2012, “How One Flawed Study Spawned a Decade of Lies” by David DiSalvo. From Forbes, 5/19/2012 © 2012 Forbes LLC. All rights reserved. Used by permission and protected by the copyright laws of the United States. The printing, copying, redistribution, or retransmission of this content without express written permission is prohibited.
preexisting differences, experimenters typically use random assignment. This is the general term for any selection procedure that ensures that every participant in the experiment is as likely to be placed in one group as the other (Jackson, 2012; Remler & Van Ryzin, 2011). Researchers might, for example, select people by flipping a coin or picking names out of a hat.

**Blind Design**

A final confound problem is bias. Participants may bias an experiment’s results by trying to please or help the experimenter (Goodwin & Goodwin, 2012). In a therapy experiment, for example, if those participants who receive the treatment know the purpose of the study and which group they are in, they might actually work harder to feel better or fulfill the experimenter’s expectations. If so, subject, or participant, bias rather than therapy could be causing their improvement.

To avoid this bias, experimenters can prevent participants from finding out which group they are in. This experimental strategy is called a blind design because the individuals are blind as to their assigned group. In a therapy study, for example, control participants could be given a placebo (Latin for “I shall please”), something that looks or tastes like real therapy but has none of its key ingredients. This “imitation” therapy is called placebo therapy. If the experimental (true therapy) participants then improve more than the control (placebo therapy) participants, experimenters have more confidence that the true therapy has caused their improvement.

An experiment may also be confounded by experimenter bias—that is, experimenters may have expectations that they unintentionally transmit to the participants in their studies (see InfoCentral on the next page). In a drug therapy study, for example, the experimenter might smile and act confident while providing real medications to the experimental participants but frown and appear hesitant while offering placebo drugs to the control participants. This kind of bias is sometimes referred to as the Rosenthal effect, after the psychologist who first identified it (Rosenthal, 1966). Experimenters can eliminate their own bias by arranging to be blind themselves. In a drug therapy study, for example, an aide could make sure that the real medication and the placebo drug look identical. The experimenter could then administer treatment without knowing which participants were receiving true medications and which were receiving false medications.

While either the participants or the experimenter may be kept blind in an experiment, it is best that both be blind—a research strategy called a double-blind design. In fact, most medication experiments now use double-blind designs to test promising drugs (Pratley, Fleck, & Wilson, 2014; Wender et al., 2011). Many experimenters also arrange for judges to assess the patients’ improvement independently, and the judges, too, are blind to group assignments. This strategy is called a triple-blind design (de Paula et al., 2013).

**Alternative Experimental Designs**

It is not easy to devise an experiment that is both well controlled and enlightening. Control of every possible confound is rarely achievable. Moreover, because psychological experiments typically use living beings, ethical and practical considerations limit the kinds of manipulations one can do (Manton et al., 2014). Thus clinical researchers must often settle for experimental designs that are less than ideal. The most common such variations are the quasi-experimental design, the natural experiment, the analogue experiment, and the single-subject experiment.
Good research helps answer important questions and advance knowledge in a field. It is objective, carefully planned, clearly described, and aware of its own limitations. A good study features well-defined questions, background information, opposing viewpoints, clear data and analyses, both supportive and unsupportive findings, cautious conclusions, and alternative interpretations (Litman, 2012).

Good Researchers Avoid Behind-the-Scene Problems

Factors that can doom a research study include low validity, confounds, inadequate controls, and poor sampling. Other behind-the-scene factors can also limit the success and credibility of research.

Lack of Respect

- Ad hominem argument Criticizing people instead of criticizing arguments
- Exclusion problem Prematurely discounting competing views
- Hypocrisy Holding others to a higher methodological standard than oneself

(Huron, 2001, 2000)

Misguided Approaches

- Positivist fallacy Believing that a phenomenon does not exist because no evidence is currently available
- Skills neglect Failing to learn new scholarly methods that may be pertinent to a research problem
- Premature reduction Entering into a study without first appreciating the complexities at play

(Huron, 2001, 2000)

Flawed Styles of Interpretation

- Confirmation bias Seeing supportive data as confirmations of a hypothesis while viewing unsupportive data as “exceptions”
- Post-hoc hypothesis Formulating additional hypotheses after data collection—hypotheses that were not in play before the data was collected
- Contradiction blindness Failing to take contradictions seriously

(Huron, 2001, 2000)

Sharing Is Important

The American Psychological Association requires authors of articles accepted for journal publication to share their data with peers for reanalysis or replication. However, one study found that almost 75% of such authors refused requests for their data (Wicherts et al., 2011, 2006).

Overaccentuating the Positive?

Scientific journals are more likely to publish “positive” studies that support the tested hypothesis than “negative” (unsupportive) studies. The proportion of published studies that are positive has increased steadily over the years.

Published Studies That Are Positive

- 1990: 70%
- 2007: 86%
- 2011: 90%

(John et al., 2012; Yong, 2012; Fanelli, 2012, 2010)

Potential Conflict of Interest?

It is important that researchers have no conflicts of interest as they conduct their work. But more than 2/3 of drug efficacy studies are conducted by private researchers who are paid directly by pharmaceutical companies. 80% of published pharmaceutical company studies report favorable outcomes. In contrast, only half of the published studies sponsored by nonpharmaceutical companies report favorable outcomes.

Reasons cited:
- misplaced data
- ethical considerations
- studies still in progress

75%

(John et al., 2012; Yong, 2012; Fanelli, 2012, 2010)

Replication Is Important

Replication is the repetition of studies with different investigators, participants, and situations. Replicated studies help determine the accuracy and generalizability of the original studies. Unfortunately, today’s replication undertakings are raising questions about some of psychology’s research findings.

Studies conducted by private researchers who contract with pharmaceutical companies

80%

Studies conducted by nonpharmaceutical companies

>2/3

contradicted the original studies or found weaker results

59%

41%

Replicated Studies

(John et al., 2012; Yong, 2010; Fiehler, 2010; Lehner, 2010; Ioannidis, 2005)
In quasi-experiments, or mixed designs, investigators do not randomly assign participants to control and experimental groups but instead make use of groups that already exist in the world at large (Girden & Kabacoff, 2011; Remler & Van Ryzin, 2011). Consider, for example, research into the effects of child abuse. Because it would be unethical for investigators of this issue to actually abuse a randomly chosen group of children, they must instead compare children who already have a history of abuse with children who do not. Such a humane strategy is, of course, preferable, but at the same time, it violates the rule of random assignment and so introduces possible confounds into the study. Children who receive excessive physical punishment, for example, usually come from poorer and larger families than children who are punished verbally. Any differences found later in the moods or self-concepts of the two groups of children may be the result of differences in wealth or family size rather than abuse.

Child-abuse researchers often try to address the confound problems of quasi-experiments by using matched control participants. That is, they match the experimental participants with control participants who are similar in age, sex, race, number of children in the family, socioeconomic status, type of neighborhood, or other characteristics. For every abused child in the experimental group, they choose a child who is not abused but who has similar characteristics to be included in the control group. When the data from studies of this kind show that abused children are typically sadder and have lower self-esteem than matched control participants who have not been abused, the investigators can conclude with some confidence that abuse is causing the differences (Lindert et al., 2013; Briggs et al., 2011).

Natural Experiments

In natural experiments, nature itself manipulates the independent variable, and the experimenter observes the effects. Natural experiments must be used for studying the psychological effects of unusual and unpredictable events, such as floods, earthquakes, plane crashes, and fires. Because the participants in these studies are selected by an accident of fate rather than by the investigators’ design, natural experiments are actually a kind of quasi-experiment.

On December 26, 2004, an earthquake occurred beneath the Indian Ocean off the coast of Sumatra, Indonesia. The earthquake triggered a series of massive tsunamis that flooded the ocean’s coastal communities, killed more than 225,000 people, and injured and left millions of survivors homeless, particularly in Indonesia, Sri Lanka, India, and Thailand. It was one of the deadliest natural disasters in history. Within months of this disaster, researchers conducted natural experiments in which they collected data from hundreds of survivors and from control groups of people who lived in areas not directly affected by the tsunamis. The disaster survivors scored significantly higher on anxiety and depression measures (dependent variables) than the controls did. The survivors also experienced more sleep problems, feelings of detachment, arousal, difficulties concentrating, startle responses, and guilt feelings than the controls did (Musa et al., 2014; Heir et al., 2010; Tang, 2007, 2006). Over the past several years, other natural experiments have focused on survivors of the 2010 Haitian earthquake, the massive earthquake and tsunami in Japan in 2011, the Northeast’s Superstorm Sandy in 2012, and the unprecedented Oklahoma tornados in 2013. These studies have also revealed lingering psychological symptoms among survivors of those disasters (Iwadare et al., 2013; Carey, 2011). Because natural experiments rely on unexpected occurrences in nature, they cannot be repeated at will. Also, because each natural event is unique in certain ways, broad generalizations drawn from a single study could be incorrect. Nevertheless, catastrophes have provided opportunities for hundreds of natural quas-experiments.

An experiment in which investigators make use of control and experimental groups that already exist in the world at large. Also called a mixed design.

natural experiment
An experiment in which nature, rather than an experimenter, manipulates an independent variable.

analogue experiment
A research method in which the experimenter produces abnormal-like behavior in laboratory participants and then conducts experiments on the participants.
experiments over the years, and certain findings have been obtained repeatedly. As a result, clinical scientists have identified patterns of reactions that people often have in such situations. You will read about these patterns—acute stress disorders and posttraumatic stress disorders—in Chapter 6.

**Analogue Experiments**

There is one way in which investigators can manipulate independent variables relatively freely while avoiding many of the ethical and practical limitations of clinical research. They can induce laboratory participants to behave in ways that seem to resemble real-life abnormal behavior and then conduct experiments on the participants in the hope of shedding light on the real-life abnormality. This is called an analogue experiment.

Analogue studies often use animals as participants. Animals are easier to gather and manipulate than humans, and their use poses fewer ethical problems. While the needs and rights of animal subjects must be considered, most experimenters are willing to subject animals to more discomfort than they would humans. They believe that the insights gained from such experimentation outweigh the discomfort of the animals, as long as their distress is not excessive (Bara & Jaffe, 2014; Barnard, 2007). In addition, experimenters can, and often do, use human participants in analogue experiments.

As you'll see in Chapter 7, investigator Martin Seligman, in a classic body of work, has used analogue studies with great success to investigate the causes of human depression. Seligman has theorized that depression results when people believe they no longer have any control over the good and bad things that happen in their lives. To test this theory, he has produced depression-like symptoms

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**Natural experiments**

In this famous photograph, a woman carries her daughter to safety after a massive tornado carved its way through Moore, Oklahoma, in 2013, leveling the town, killing 25 people, and injuring 377 others. Natural experiments conducted in the aftermath of such catastrophes have found that many survivors experience lingering feelings of anxiety and depression.
in laboratory participants—both animals and humans—by repeatedly exposing them to negative events (shocks, loud noises, task failures) over which they have no control. In these “learned helplessness” analogue studies, the participants seem to give up, lose their initiative, and become sad—suggesting to some clinicians that human depression itself may indeed be caused by loss of control over the events in one’s life.

It is important to remember that the laboratory-induced learned helplessness produced in Seligman’s analogue experiments is not known with certainty to be analogous to human depression. If this laboratory phenomenon is actually only superficially similar to depression, then the clinical inferences drawn from such experiments may be misleading. This, in fact, is the major limitation of all analogue research: researchers can never be certain that the phenomena they see in the laboratory are the same as the psychological disorders they are investigating.

Single-Subject Experiments

Sometimes scientists do not have the luxury of experimenting on many participants. They may, for example, be investigating a disorder so rare that few participants are available. Experimentation is still possible, however, with a single-subject experimental design. Here a single participant is observed both before and after the manipulation of an independent variable (Richards, Taylor, & Ramasamy, 2014). Single-subject experiments rely first on baseline data—information gathered prior to any manipulations. These data set a standard with which later changes may be compared. The experimenter next introduces the independent variable and again observes the participant’s behavior. Any changes in behavior are attributed to the effects of the independent variable.

In one kind of single-subject design, called an ABAB, or reversal, design, a participant’s reactions are measured and compared not only during a baseline period (condition A) and after the introduction of the independent variable (condition B) but also after the independent variable has been removed (condition A again) and after it has been reintroduced one more time (condition B again). If the individual’s responses change back and forth along with changes in the independent variable, the experimenter may conclude that the independent variable is causing the shifting responses. Essentially, in an ABAB design a participant is compared with himself or herself under different conditions rather than with control participants. The individual, therefore, serves as his or her own control.

One researcher used an ABAB design to determine whether the systematic use of rewards was helping to reduce a teenage boy’s habit of disrupting his special education class with loud talk (Deitz, 1977). He rewarded the boy, who suffered from intellectual disability (previously called mental retardation), with extra teacher time whenever he went 55 minutes without interrupting the class more than three times. In condition A (baseline period), the student was observed to disrupt the class frequently with loud talk. In condition B, the boy was given a series of teacher reward sessions (introduction of the independent variable); as expected, his loud talk decreased dramatically. Then the rewards from the teacher were stopped (condition A again), and the student’s loud talk increased once again. Apparently the independent variable had indeed been the cause of the improvement. To be still more confident about this conclusion, the researcher had the teacher
apply reward sessions yet again (condition B again). Once again the student’s behavior improved.

Obviously, single-subject experiments, such as the ABAB design, are similar to individual case studies in their focus on one participant. In single-subject experiments, however, the independent variable is manipulated systematically so that the investigator can confidently draw conclusions about the cause of an observed effect (Richards et al., 2014; Compas & Gotlib, 2002). The single-subject experiment therefore has greater internal validity than the case study. At the same time, single-subject experiments, like case studies, have only limited external validity. Because only one person is studied, the experimenter cannot be sure that the participant’s reaction to the independent variable is typical of people in general.

Protecting Human Participants

Like the animal subjects that you read about earlier (see pages 31 and 47–48), human research participants have needs and rights that must be respected. In fact, researchers’ primary obligation is to avoid harming the human participants in their studies—physically or psychologically.

The vast majority of researchers are conscientious about fulfilling this obligation. They try to conduct studies that test their hypotheses and further scientific knowledge in a safe and respectful way. But there have been some notable exceptions to this over the years, particularly three infamous studies conducted in the mid-1900s, as you’ll see in PsychWatch on the next page. Partly because of such exceptions, the government and the institutions in which research is conducted now take careful measures to ensure that the safety and rights of human research participants are properly protected.

Who, beyond researchers themselves, might directly watch over the rights and safety of human participants? For the past few decades, that responsibility has been given to Institutional Review Boards, or IRBs. Each research facility has an IRB—a committee of five or more members who review and monitor every study conducted at that institution, starting when the studies are first proposed. The institution may be a university, medical school, psychiatric or medical hospital, private research facility, mental health center, or the like. If research is conducted there, the institution must have an IRB, and that IRB has the responsibility and power to require changes in a proposed study as a condition of approval. If acceptable changes are not made by the researcher, then the IRB can disapprove the study altogether. Similarly, if over the course of the study, the safety or rights of the participants are placed in jeopardy, the IRB must intervene and can even stop the study if necessary. These powers are granted to IRBs (or similar ethics committees) by nations around the world. In the United States, for example, IRBs are empowered by two agencies of the federal government—the Office for Human Research Protections and the Food and Drug Administration.

It turns out that protecting the rights and safety of human research participants is a complex undertaking. Thus, IRBs often are forced to conduct a kind of risk-benefit analysis in their reviews. They may, for example, approve a study that poses minimal or slight risks to participants if that “acceptable” level of risk is offset by...
The study's potential benefits to society. In general, IRBs try to ensure that each study grants the following rights to its participants (NIJ, 2010):

➤ The participants enlist voluntarily.
➤ Before enlisting, the participants are adequately informed about what the study entails (“informed consent”).
➤ The participants can end their participation in the study at any time.
➤ The benefits of the study outweigh its costs/risks.
➤ The participants are protected from physical and psychological harm.
➤ The participants have access to information about the study.
➤ The participants’ privacy is protected by principles such as confidentiality or anonymity.

Unfortunately, even with IRBs on the job, these rights can be in jeopardy. Consider, for example, the right of informed consent. To help ensure that participants understand what they are getting into when they enlist for a study, IRBs typically
require that the individuals read and sign an “informed consent form” which spells out everything they need to know. But how clear are such forms? Not very, according to some investigations (Albala, Doyle, & Appelbaum, 2010; Mathew & McGrath, 2002; Uretsky, 1999).

It turns out that most such forms—the very forms deemed acceptable by IRBs—are written at an advanced college level, making them incomprehensible to a large percentage of participants. In fact, fewer than half of all participants may fully understand the informed consent forms they are signing. Still other investigations indicate that only around 10 percent of human participants carefully read the informed consent forms before signing them, and only 30 percent ask questions of the researchers during the informed consent phase of their studies (CISCRP, 2013).

In short, the IRB system is flawed, much like the research undertakings it oversees. There are various reasons for this. One is that ethical principles are subtle and elusive notions that do not always translate into simple regulations and guidelines. Another reason is that ethical decisions—whether by IRB members or by researchers—are subject to differences in perspective, interpretation, decision-making style, and the like. Despite such problems and limitations, most observers agree that the creation and work of IRBs have helped improve the rights and safety of human research participants over the years. The boards may reflect an imperfect system, but they play a necessary and important role in monitoring the quality and appropriateness of research undertakings.

PUTTING IT TOGETHER

The Use of Multiple Research Methods

We began this discussion by noting that clinical scientists look for general laws that will help them understand, treat, and prevent psychological disorders. Various obstacles interfere with their progress, however. We have already observed some of them. The most fundamental are summarized here.

1. Clinical scientists must respect the rights of both human and animal subjects. Ethical considerations greatly limit the kinds of investigations that clinical scientists can conduct.
2. The causes of human functioning are very complex. Because human behavior generally results from multiple factors working together, it is difficult to pinpoint specific causes. So many factors can influence human functioning that it has actually been easier to unravel the secrets of energy and matter than to understand human sadness, stress, and anxiety.
3. Human beings are changeable. Moods, behaviors, and thoughts fluctuate. Is the person under study today truly the same as he or she was yesterday? Variability in a single person, let alone from person to person, limits the kinds of conclusions researchers can draw about abnormal functioning.
4. Human self-awareness may influence the results of clinical investigations. When human participants know they are being studied, that knowledge influences their behavior. They may try to respond as they think researchers expect them to or to present themselves in a favorable light. Similarly, the attention they receive from investigators may itself increase their optimism and improve their mood. It is a law of science that the very act of measuring an object distorts the object to some degree. Nowhere is this truer than in the study of human beings.
5. Clinical investigators have a special link to their research participants. Clinical scientists, too, experience mood changes, troubling thoughts, and family problems. They may identify with the pain of the participants in their studies or have personal opinions about their problems. These feelings can bias an investigator’s attempts to understand abnormality.
In short, human behavior is so complex that clinical scientists must use a range of methods to study it. Each method addresses some of the underlying problems, but no one approach overcomes them all. Case studies allow investigators to consider a broader range of causes, but experiments pinpoint causes more precisely. Similarly, correlational studies allow broad generalizations, but case studies are richer in detail. It is best to view each research method as part of a team of approaches that together may shed light on abnormal human functioning. When more than one method has been used to investigate a disorder, it is important to ask whether all the results seem to point in the same direction. If they do, clinical scientists are probably making progress toward understanding and treating that disorder. Conversely, if the various methods seem to produce conflicting results, the scientists must admit that knowledge in that particular area is still tentative.

Before accepting any research findings, however, students in the clinical field must review the details of these studies with a very critical eye. Were the variables properly controlled? Was the choice of participants representative, was the sample large enough to be meaningful, and has bias been eliminated? Are the investigator’s conclusions justified? How else might the results be interpreted? Only after asking these questions can we conclude that a truly informative investigation has taken place.

**BETWEEN THE LINES**

People Who Purchased This Participant Also Purchased . . .

Leave it to Amazon. More and more researchers are now finding study participants on Amazon Mechanical Turk, an Amazon site that helps investigators and prospective participants find each other. Researchers (known as Requesters) post their studies (online surveys, choice tasks, and the like) on this Internet marketplace, and participants (called Providers or Turkers) choose which studies they want to sign up for. Upon completion of the online study, participants receive payment (usually a small amount) via an Amazon.com gift certificate, and Amazon receives 10 percent of the participant’s reimbursement.

**SUMMING UP**

- **WHAT DO CLINICAL RESEARCHERS DO?** Researchers use the scientific method to uncover nomothetic principles of abnormal psychological functioning. They attempt to identify and examine relationships between variables and depend primarily on three methods of investigation: the case study, the correlational method, and the experimental method. pp. 30–31

- **THE CASE STUDY** A case study is a detailed account of a person’s life and psychological problems. It can serve as a source of ideas about behavior, provide support for theories, challenge theories, clarify new treatment techniques, or offer an opportunity to study an unusual problem. Yet case studies may be reported by biased observers and rely on subjective evidence. In addition, they tend to have low internal validity and low external validity. pp. 32–34

- **THE CORRELATIONAL METHOD** Correlational studies are used to systematically observe the degree to which events or characteristics vary together. This method allows researchers to draw broad conclusions about abnormality in the population at large.

  A correlation may have a positive or negative direction and may be high or low in magnitude. It can be calculated numerically and is expressed by the correlation coefficient (r). Researchers perform a statistical analysis to determine whether the correlation found in a study is truly characteristic of the larger population or due to chance. Correlational studies generally have high external validity but lack internal validity. Two widely used forms of the correlation method are epidemiological studies and longitudinal studies. pp. 35–40

- **THE EXPERIMENTAL METHOD** In experiments, researchers manipulate suspected causes to see whether expected effects will result. The variable that is manipulated is called the independent variable, and the variable that is expected to change as a result is called the dependent variable.
Confounds are variables other than the independent variable that are also acting on the dependent variable. To minimize their possible influence, experimenters use control groups, random assignment, and blind designs. The findings of experiments, like those of correlational studies, must be analyzed statistically. pp. 40–44

- **ALTERNATIVE EXPERIMENTAL DESIGNS** Clinical experimenters must often settle for experimental designs that are less than ideal, including the quasi-experiment, the natural experiment, the analogue experiment, and the single-subject experiment. pp. 44–49

- **PROTECTING HUMAN PARTICIPANTS** Each research facility has an Institutional Review Board (IRB) that has the power and responsibility to protect the rights and safety of human participants in all studies conducted at that facility. Members of the IRB review each study during the planning stages and can require changes in the proposed study before granting approval for the undertaking. If the required changes are not made, the IRB has the authority to disapprove the study. Among the important participant rights that the IRB protects is the right of informed consent, an acceptable risk/benefit balance, and privacy (confidentiality or anonymity). pp. 49–51

- **THE USE OF MULTIPLE RESEARCH METHODS** Because research participants have rights that must be respected, because the origins of behavior are complex, because behavior varies, and because the very act of observing an individual’s behavior influences that behavior, it can be difficult to assess the findings of clinical research. Also, researchers must take into account their own biases as well as a study’s unintended impact on participants’ usual behavior. To help address such obstacles, clinical investigators must use multiple research approaches. pp. 51–52

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*In Their Words*

“If we knew what it was we were doing, it would not be called research, would it?”

Albert Einstein
Philip Berman, a 25-year-old single unemployed former copy editor for a large publishing house . . . had been hospitalized after a suicide attempt in which he deeply gashed his wrist with a razor blade. He described [to the therapist] how he had sat on the bathroom floor and watched the blood drip into the bathtub for some time before he [contacted] his father at work for help. He and his father went to the hospital emergency room to have the gash stitched, but he convinced himself and the hospital physician that he did not need hospitalization. The next day when his father suggested he needed help, he knocked his dinner to the floor and angrily stormed to his room. When he was calm again, he allowed his father to take him back to the hospital.

The immediate precipitant for his suicide attempt was that he had run into one of his former girlfriends with her new boyfriend. The patient stated that they had a drink together, but all the while he was with them he could not help thinking that “they were dying to run off and jump in bed.” He experienced jealous rage, got up from the table, and walked out of the restaurant. He began to think about how he could “pay her back.”

Mr. Berman had felt frequently depressed for brief periods during the previous several years. He was especially critical of himself for his limited social life and his inability to have managed to have sexual intercourse with a woman even once in his life. As he related this to the therapist, he lifted his eyes from the floor and with a sarcastic smirk said, “I’m a 25-year-old virgin. Go ahead, you can laugh now.” He had had several girlfriends to date, whom he described as very attractive, but who he said had lost interest in him. On further questioning, however, it became apparent that Mr. Berman soon became very critical of them and demanded that they always meet his every need, often to their own detriment. The women then found the relationship very unrewarding and would soon find someone else.

During the past two years Mr. Berman had seen three psychiatrists briefly, one of whom had given him a drug, the name of which he could not remember, but that had precipitated some sort of unusual reaction for which he had to stay in a hospital overnight. . . . Concerning his hospitalization, the patient said that “It was a dump,” that the staff refused to listen to what he had to say or to respond to his needs, and that they, in fact, treated all the patients “sadistically.” The referring doctor corroborated that Mr. Berman was a difficult patient who demanded that he be treated as special, and yet was hostile to most staff members throughout his stay. After one angry exchange with an aide, he left the hospital without [permission], and subsequently signed out against medical advice.

Mr. Berman is one of two children of a middle-class family. His father is 55 years old and employed in a managerial position for an insurance company. He perceives his father as weak and ineffective, completely dominated by the patient’s overbearing and cruel mother. He states that he hates his mother with “a passion I can barely control.” He claims that his mother used to call him names like “pervert” . . . when he was growing up, and that in an argument she once “kicked me in the balls.” Together, he sees his parents as rich, powerful, and selfish, and, in turn, thinks that they see him as lazy, irresponsible, and a behavior problem. When his parents called the therapist to discuss their son’s treatment, they stated that his problem began with the birth of his younger brother, Arnold, when Philip was 10 years old. After Arnold’s birth Philip apparently became [a disagreeable] child who cursed a lot and was difficult to discipline. Philip recalls this period only vaguely. He reports that his mother once was hospitalized for depression, but that now “she doesn’t believe in psychiatry.”

Mr. Berman had graduated from college with average grades. Since graduating he had worked at three different publishing houses, but at none of them for more than one year. He always found some justification for quitting. He usually sat around his house doing very little for two or three months after quitting a job, until his parents
Philip Berman is clearly a troubled person, but how did he come to be that way? How do we explain and correct his many problems? To answer these questions, we must first look at the wide range of complaints we are trying to understand: Philip’s depression and anger, his social failures, his lack of employment, his distrust of those around him, and the problems within his family. Then we must sort through all kinds of potential causes—internal and external, biological and interpersonal, past and present.

Although we may not realize it, we all use theoretical frameworks as we read about Philip. Over the course of our lives, each of us has developed a perspective that helps us make sense of the things other people say and do. In science, the perspectives used to explain events are known as models, or paradigms. Each model spells out the scientist’s basic assumptions, gives order to the field under study, and sets guidelines for its investigation (Kuhn, 1962). It influences what the investigators observe as well as the questions they ask, the information they seek, and how they interpret this information (Prochaska & Norcross, 2013). To understand how a clinician explains or treats a specific set of symptoms, such as Philip’s, we must know his or her preferred model of abnormal functioning.

Until recently, clinical scientists of a given place and time tended to agree on a single model of abnormality—a model greatly influenced by the beliefs of their culture. The demonological model that was used to explain abnormal functioning during the Middle Ages, for example, borrowed heavily from medieval society’s concerns with religion, superstition, and warfare. Medieval practitioners would have seen the devil’s guiding hand in Philip Berman’s efforts to commit suicide and his feelings of depression, rage, jealousy, and hatred. Similarly, their treatments for him—from prayers to whippings—would have sought to drive foreign spirits from his body.

Today several models are used to explain and treat abnormal functioning. This variety has resulted both from shifts in values and beliefs over the past half-century and from improvements in clinical research. At one end of the spectrum is the biological model, which sees physical processes as key to human behavior. In the middle are four models that focus on more psychological and personal aspects of human functioning: The psychodynamic model looks at people’s unconscious internal processes and conflicts, the behavioral model emphasizes behavior and the ways in which it is learned, the cognitive model concentrates on the thinking that underlies behavior, and the humanistic-existential model stresses the role of values and choices. At the far end of the spectrum is the sociocultural model, which looks to social and cultural forces as the keys to human functioning. This model includes the family-social perspective, which focuses on an individual’s family and social interactions, and the multicultural perspective, which emphasizes an individual’s culture and the shared beliefs, values, and history of that culture.
Given their different assumptions and principles, the models are sometimes in conflict. Those who follow one perspective often scoff at the “naïve” interpretations, investigations, and treatment efforts of the others. Yet none of the models is complete in itself. Each focuses mainly on one aspect of human functioning, and none can explain all aspects of abnormality.

The Biological Model

Philip Berman is a biological being. His thoughts and feelings are the results of biochemical and bioelectrical processes throughout his brain and body. Proponents of the biological model believe that a full understanding of Philip’s thoughts, emotions, and behavior must therefore include an understanding of their biological basis. Not surprisingly, then, they believe that the most effective treatments for Philip’s problems will be biological ones.

How Do Biological Theorists Explain Abnormal Behavior?

Adopting a medical perspective, biological theorists view abnormal behavior as an illness brought about by malfunctioning parts of the organism. Typically, they point to problems in brain anatomy or brain chemistry as the cause of such behavior.

Brain Anatomy and Abnormal Behavior The brain is made up of approximately 100 billion nerve cells, called neurons, and thousands of billions of support cells, called glia (from the Greek word for “glue”). Within the brain large groups of neurons form distinct areas, or brain regions. Toward the top of the brain, for example, is a cluster of regions, collectively referred to as the cerebrum, which includes the cortex, corpus callosum, basal ganglia, hippocampus, and amygdala (see Figure 3-1). The neurons in each of these brain regions control important functions. The cortex is the outer layer of the brain, the corpus callosum connects the brain’s two cerebral hemispheres, the basal ganglia plays a crucial role in planning and producing movement, the hippocampus helps regulate emotions and memory, and the amygdala plays a key role in emotional memory. Clinical researchers have discovered connections between certain psychological disorders and problems in specific areas of the brain. One such disorder is Huntington’s disease, a disorder marked by violent emotional outbursts, memory loss, suicidal thinking, involuntary body movements, and absurd beliefs. This disease has been traced to a loss of cells in the basal ganglia and cortex.

Brain Chemistry and Abnormal Behavior Biological researchers have also learned that psychological disorders can be related to problems in the transmission of messages from neuron to neuron. Information is communicated throughout the brain in the form of electrical impulses that travel from one neuron to one or more others. An impulse is first received by a neuron’s dendrites, antenna-like extensions located at one end of the neuron. From there it travels down the neuron’s axon, a long fiber extending from the neuron’s body. Finally, it is transmitted through the nerve ending at the end of the axon to the dendrites of other neurons (see Figure 3-2 on the next page).

But how do messages get from the nerve ending of one neuron to the dendrites of another? After all, the neurons do not actually touch each other. A tiny space, called the synapse, separates one neuron from the next, and the message must
Somehow move across that space. When an electrical impulse reaches a neuron’s ending, the nerve ending is stimulated to release a chemical, called a neurotransmitter, that travels across the synaptic space to receptors on the dendrites of the neighboring neurons. After binding to the receiving neuron’s receptors, some neurotransmitters give a message to receiving neurons to “fire,” that is, to trigger their own electrical impulse. Other neurotransmitters carry an inhibitory message; they tell receiving neurons to stop all firing. As you can see, neurotransmitters play a key role in moving information through the brain.

Researchers have identified dozens of neurotransmitters in the brain, and they have learned that each neuron uses only certain kinds. Studies indicate that abnormal activity by certain neurotransmitters can lead to specific mental disorders. Depression, for example, has been linked to low activity of the neurotransmitters serotonin and norepinephrine. Perhaps low serotonin activity is partly responsible for Philip Berman’s pattern of depression and rage.

In addition to focusing on neurons and neurotransmitters, researchers have learned that mental disorders are sometimes related to abnormal chemical activity in the body’s endocrine system. Endocrine glands, located throughout the body, work along with neurons to control such vital activities as growth, reproduction, sexual activity, heart rate, body temperature, energy, and responses to stress. The glands release chemicals called hormones into the bloodstream, and these chemicals then propel body organs into action. During times of stress, for example, the adrenal glands, located on top of the kidneys, secrete the hormone cortisol to help the body deal with the stress. Abnormal secretions of this chemical have been tied to anxiety and mood disorders.

Sources of Biological Abnormalities Why do some people have brain structures or biochemical activities that differ from the norm? Three factors have received particular attention in recent years—genetics, evolution, and viral infections.

Genetics and Abnormal Behavior Abnormalities in brain anatomy or chemistry are sometimes the result of genetic inheritance. Each cell in the human brain and body contains 23 pairs of chromosomes, with each chromosome in a pair inherited from one of the...
A person’s parents. Every chromosome contains numerous genes—segments that control the characteristics and traits a person inherits. Altogether, each cell contains around 30,000 genes (Emig et al., 2013; Dermitzakis, 2011). Scientists have known for years that genes help determine such physical characteristics as hair color, height, and eyesight. Genes can make people more prone to heart disease, cancer, or diabetes, and perhaps to possessing artistic or musical skill. Studies suggest that inheritance also plays a part in mood disorders, schizophrenia, and other mental disorders. It appears that in most cases, several genes combine to help produce our actions and reactions, both functional and dysfunctional.

The precise contributions of various genes to mental disorders have become clearer in recent years, thanks in part to the completion of the Human Genome Project in 2000. In this major undertaking, scientists used the tools of molecular biology to map, or sequence, all of the genes in the human body in great detail. With this information in hand, researchers hope eventually to be able to prevent or change genes that help cause medical or psychological disorders.

EVOLUTION AND ABNORMAL BEHAVIOR Genes that contribute to mental disorders are typically viewed as unfortunate occurrences—almost mistakes of inheritance. The responsible gene may be a mutation, an abnormal form of the appropriate gene that emerges by accident. Or the problematic gene may be inherited by an individual after it has initially entered the family line as a mutation. According to some theorists, however, many of the genes that contribute to abnormal functioning are actually the result of normal evolutionary principles (Bruine et al., 2012; Fábrega, 2010).

In general, evolutionary theorists argue that human reactions and the genes responsible for them have survived over the course of time because they have helped individuals to thrive and adapt. Ancestors who had the ability to run fast, for example, or the craftiness to hide were most able to escape their enemies and to reproduce. Thus, the genes responsible for effective walking, running, or problem solving were particularly likely to be passed on from generation to generation to the present day.

Similarly, say evolutionary theorists, the capacity to experience fear was, and in many instances still is, adaptive. Fear alerted our ancestors to dangers, threats, and losses, so that persons could avoid or escape potential problems. People who were particularly sensitive to danger—those with greater fear responses—were more likely to survive catastrophes, battles, and the like and to reproduce and pass on their fear genes. Of course, in today’s world, pressures are more numerous, subtle, and complex than they were in the past, condemning many individuals with such genes to a near-endless stream of fear and arousal. That is, the very genes that helped their ancestors to survive and reproduce might now leave these individuals particularly prone to fear reactions, anxiety disorders, or related psychological disorders.

The evolutionary perspective is controversial in the clinical field and has been rejected by many theorists. Imprecise and at times impossible to research, this explanation requires leaps of faith that many scientists find unacceptable. Nevertheless, as genetic discoveries and insights have grown, interest in the possible causes of genetic differences and how they relate to current circumstances has grown as well, and evolutionary theories have received considerable attention.

VIRAL INFECTIONS AND ABNORMAL BEHAVIOR Another possible source of abnormal brain structure or biochemical dysfunctioning is viral infections. As you will see in Chapter 14, for example, research suggests that schizophrenia, a disorder marked by delusions, hallucinations, or other departures from reality, may be related to exposure to certain viruses during childhood or before birth (Liu et al., 2014;
Psychotropic Medications

Drugs that primarily affect the brain and reduce many symptoms of mental dysfunctioning.

Antianxiety drugs

Psychotropic drugs that help reduce tension and anxiety. Also called minor tranquilizers or anxiolytics.

Antidepressant drugs

Psychotropic drugs that improve the moods of people with depression.

Antibipolar drugs

Psychotropic drugs that help stabilize the moods of people suffering from a bipolar mood disorder. Also called mood stabilizers.

Antipsychotic drugs

Psychotropic drugs that help correct the confusion, hallucinations, and delusions found in psychotic disorders.

electroconvulsive therapy (ECT)

A biological treatment in which a brain seizure is triggered as an electric current passes through electrodes attached to the patient’s forehead.

Psychosurgery

Brain surgery for mental disorders. Also called neurosurgery.

Biological Treatments

Biological practitioners look for certain kinds of clues when they try to understand abnormal behavior. Does the person’s family have a history of that behavior, and hence a possible genetic predisposition to it? (Philip Berman’s case history mentions that his mother was once hospitalized for depression.) Is the behavior produced by events that could have had a physiological effect? (Philip was having a drink when he flew into a jealous rage at the restaurant.)

Once the clinicians have pinpointed physical sources of dysfunctioning, they are in a better position to choose a biological course of treatment. The three leading kinds of biological treatments used today are drug therapy, electroconvulsive therapy, and psychosurgery. Drug therapy is by far the most common of these approaches.

In the 1950s, researchers discovered several effective psychotropic medications, drugs that mainly affect emotions and thought processes. These drugs have greatly changed the outlook for a number of mental disorders and today are used widely, either alone or with other forms of therapy. However, the psychotropic drug revolution has also produced some major problems. Many people believe, for example, that the drugs are overused. Moreover, while drugs are effective in many cases, they do not help everyone.

Four major psychotropic drug groups are used in therapy: antianxiety, antidepressant, antibipolar, and antipsychotic drugs. Antianxiety drugs, also called minor tranquilizers or anxiolytics, help reduce tension and anxiety. Antidepressant drugs help improve the moods of people who are depressed. Antibipolar drugs, also called mood stabilizers, help steady the moods of those with a bipolar disorder, a condition marked by mood swings from mania to depression. And antipsychotic drugs help reduce the confusion, hallucinations, and delusions of psychotic disorders, disorders (such as schizophrenia) marked by a loss of contact with reality. All such drugs reach the marketplace only after systematic research and a careful review process (see InfoCentral on the next page).

A second form of biological treatment, used primarily on depressed patients, is electroconvulsive therapy (ECT). Two electrodes are attached to a patient’s forehead, and an electrical current of 65 to 140 volts is passed briefly through the brain. The current causes a brain seizure that lasts up to a few minutes. After seven to nine ECT sessions, spaced two or three days apart, many patients feel considerably less depressed. The treatment is used on tens of thousands of depressed persons annually, particularly those whose depression fails to respond to other treatments (Dukart et al., 2014; Perugi et al., 2012).

A third form of biological treatment is psychosurgery, or neurosurgery, brain surgery for mental disorders. It is thought to have roots as far back as trephining, the prehistoric practice of
How does a new drug reach the marketplace? It takes an average of 12 to 13 years and many millions of dollars for a pharmaceutical company in the United States to bring a new drug to market. The company must carefully follow steps that are specified by law.

The journey begins with the laboratory discovery of a promising chemical compound. Only a small percentage of such compounds ever make it all the way.

**THE FDA DRUG DEVELOPMENT AND APPROVAL PROCESS**

**PRE-CLINICAL PHASE (5 years)**
- New drug is developed and identified.
- Drug is tested on animals to clarify safety and efficacy.
- Dosage for human research is recommended.
- 3% of newly discovered chemical compounds make it to animal laboratory testing.
- 2% of chemical compounds in Pre-Clinical Phase animal testing prove safe and effective enough to make it to Clinical Phase I human testing.

**CLINICAL PHASE I (1.5 years)**
- Drug is tested on healthy human participants to determine its safety and dosage.
- Number of participants: 20–80
- 33% of drugs in Clinical Phase I eventually make it to Clinical Phase III.
- 2% of drugs in Clinical Phase I are eventually approved for the marketplace.

**CLINICAL PHASE II (2 years)**
- Drug is tested on human participants who suffer from the disorder to assess efficacy, further explore the drug’s safety, and estimate correct dosage and treatment procedures.
- Number of participants: 100–300
- 8% of drugs in Clinical Phase III are eventually approved for the marketplace.

**CLINICAL PHASE III (3–4 years)**
- Drug is tested in carefully controlled studies of human participants who suffer from the disorder to fully determine its efficacy and safety, including its side effects.
- Number of participants: 1,000–3,000
- 8% of drugs in Clinical Phase III are eventually approved for the marketplace.

**REVIEW BY U.S. FOOD AND DRUG ADMINISTRATION (1–2 years)**
- Research is reviewed by FDA, and drug is approved or rejected.

**POSTMARKETING SURVEILLANCE (10 years)**
- Testing continues; physicians’ and psychiatrists’ reports are gathered even after the drug is on marketplace.
- Manufacturers must report any unexpected long-term effects and side effects.

On average, bringing a chemical compound to market as an approved drug costs a pharmaceutical company: $800 million to $1 billion

**FDA APPROVAL OF PIONEERING DRUGS**

1954: Thorazine first antipsychotic
1955: Ritalin first ADHD medication
1958: MAO Inhibitors first antidepressant
1960: Librium first benzodiazepine type of antianxiety medication
1961: Elavil first tricyclic antidepressant
1963: Valium first tricyclic antidepressant
1968: Lithium first mood stabilizer/antibipolar medication
1987: Prozac first SSRI antidepressant
1998: Viagra first erectile dysfunction drug

**APPROVING A DRUG FOR ALTERNATIVE USES**
- “Off-Label” Use: Once the FDA approves a drug, physicians are free to prescribe it for any other disorder that is consistent with medical research.
- But the drug’s pharmaceutical company can market it only for the disorder targeted in the approval process.
- “New Indications”: After a drug is approved by the FDA for a disorder, the pharmaceutical company can apply for it to be marketed for use for other disorders.
- The application and approval process for marketing a drug for new indications is less costly, time-consuming, and rigorous than the approval process for a brand-new drug.

**APPROVING “GENERIC” DRUGS**
- The pharmaceutical manufacturer of a new drug is granted a patent early in the approval process—an exclusive right to sell the drug for 20 years.
- When a patent expires, other pharmaceutical companies may produce and sell generic drugs, copies of the brand-name drug that have exactly the same dosage, effects, and safety as the original drug.
- The FDA requires research evidence that the generic drug is therapeutically equivalent to the originally approved drug.
- 80% of all FDA-approved drugs are currently available in generic form.
chipping a hole in the skull of a person who behaved strangely. Modern procedures are derived from a technique first developed in the late 1930s by a Portuguese neuropsychiatrist, António Egas Moniz. In that procedure, known as a *lobotomy*, a surgeon would cut the connections between the brain’s frontal lobes and the lower regions of the brain. Today’s psychosurgery procedures are much more precise than the lobotomies of the past. Even so, they are considered experimental and are used only after certain severe disorders have continued for years without responding to any other form of treatment.

**Assessing the Biological Model**

Today the biological model enjoys considerable respect. Biological research constantly produces valuable new information. And biological treatments often bring great relief when other approaches have failed. At the same time, this model has its shortcomings. Some of its proponents seem to expect that all human behavior can be explained in biological terms and treated with biological methods. This view can limit rather than enhance our understanding of abnormal functioning. Our mental life is an interplay of biological and nonbiological factors, and it is important to understand that interplay rather than to focus on biological variables alone.

Another shortcoming is that several of today’s biological treatments are capable of producing significant undesirable effects. Certain antipsychotic drugs, for example, may produce movement problems such as severe shaking, bizarre-looking contractions of the face and body, and extreme restlessness. Clearly such costs must be addressed and weighed against the drug’s benefits.

**The Psychodynamic Model**

The *psychodynamic model* is the oldest and most famous of the modern psychological models. Psychodynamic theorists believe that a person’s behavior, whether normal or abnormal, is determined largely by underlying psychological forces of which he or she is not consciously aware. These internal forces are described as *dynamic*—that is, they interact with one another—and their interaction gives rise to behavior, thoughts, and emotions. Abnormal symptoms are viewed as the result of conflicts between these forces.

Psychodynamic theorists would view Philip Berman as a person in conflict. They would want to explore his past experiences because, in their view, psychological conflicts are tied to early relationships and to traumatic experiences that occurred during childhood. Psychodynamic theories rest on the *deterministic* assumption that no symptom or behavior is “accidental”: All behavior is determined by past experiences. Thus Philip’s hatred for his mother, his memories of her as cruel and overbearing, the weakness of his father, and the birth of a younger brother when Philip was 10 may all be important to the understanding of his current problems.

The psychodynamic model was first formulated by Viennese neurologist Sigmund Freud (1856–1939) at the turn of the twentieth century. First, Freud worked with physician Josef Breuer (1842–1925), conducting experiments on hypnosis and hysterical illnesses—mysterious physical ailments with no apparent medical cause. In a famous case, Breuer had treated a woman he called “Anna O.,” whose hysterical symptoms included paralysis of the legs and right arm, deafness,
Models of Abnormality:

Breuer placed the woman under hypnosis, expecting that suggestions made to her in that state would help rid her of her hysterical symptoms. While she was under hypnosis, however, she began to talk about traumatic past events and to express deeply felt emotions. This expression of repressed memories seemed to enhance the effectiveness of the treatment. Anna referred to it as her “talking cure.” Building on this early work, Freud developed the theory of psychoanalysis to explain both normal and abnormal psychological functioning as well as a corresponding method of treatment, a conversational approach also called psychoanalysis. During the early 1900s, Freud and several of his colleagues in the Vienna Psychoanalytic Society—including Carl Gustav Jung (1875–1961) and Alfred Adler (1870–1937)—became the most influential clinical theorists in the Western world.

How Did Freud Explain Normal and Abnormal Functioning?

Freud believed that three central forces shape the personality—instinctual needs, rational thinking, and moral standards. All of these forces, he believed, operate at the unconscious level, unavailable to immediate awareness; he further believed these forces to be dynamic, or interactive. Freud called the forces the id, the ego, and the superego.

The Id

Freud used the term id to denote instinctual needs, drives, and impulses. The id operates in accordance with the pleasure principle; that is, it always seeks gratification. Freud also believed that all id instincts tend to be sexual, noting that from the very earliest stages of life a child’s pleasure is obtained from nursing, defecating, masturbating, or engaging in other activities that he considered to have sexual ties. He further suggested that a person’s libido, or sexual energy, fuels the id.

The Ego

During our early years we come to recognize that our environment will not meet every instinctual need. Our mother, for example, is not always available to do our bidding. A part of the id separates off and becomes the ego. Like the id, the ego unconsciously seeks gratification, but it does so in accordance with the reality principle, the knowledge we acquire through experience that it can be unacceptable

In Their Words

“Mental illness is so much more complicated than any pill that any mortal could invent.”

Elizabeth Wurtzel, Prozac Nation
to express our id impulses outright. The ego, employing reason, guides us to know when we can and cannot express those impulses.

The ego develops basic strategies, called ego defense mechanisms, to control unacceptable id impulses and avoid or reduce the anxiety they arouse. The most basic defense mechanism, repression, prevents unacceptable impulses from ever reaching consciousness. There are many other ego defense mechanisms, and each of us tends to favor some over others (see Table 3-1).

**The Superego** The superego grows from the ego, just as the ego grows out of the id. This personality force operates by the morality principle, a sense of what is right and what is wrong. As we learn from our parents that many of our id impulses are unacceptable, we unconsciously adopt our parents’ values. Judging ourselves by their standards, we feel good when we uphold their values; conversely, when we go against them, we feel guilty. In short, we develop a conscience.

According to Freud, these three parts of the personality—the id, the ego, and the superego—are often in some degree of conflict. A healthy personality is one in which an effective working relationship, an acceptable compromise, has formed among the three forces. If the id, ego, and superego are in excessive conflict, the person’s behavior may show signs of dysfunction.

Freudians would therefore view Philip Berman as someone whose personality forces have a poor working relationship. His ego and superego are unable to control his id impulses, which lead him repeatedly to act in impulsive and often dangerous ways—suicide gestures, jealous rages, job resignations, outbursts of temper, frequent arguments.

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**The Defense Never Rests: Defense Mechanisms to the Rescue**

<table>
<thead>
<tr>
<th>Defense</th>
<th>Operation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repression</td>
<td>Person avoids anxiety by simply not allowing painful or dangerous thoughts to become conscious.</td>
<td>An executive’s desire to run amok and attack his boss and colleagues at a board meeting is denied access to his awareness.</td>
</tr>
<tr>
<td>Denial</td>
<td>Person simply refuses to acknowledge the existence of an external source of anxiety.</td>
<td>You are not prepared for tomorrow’s final exam, but you tell yourself that it’s not actually an important exam and that there’s no good reason not to go to a movie tonight.</td>
</tr>
<tr>
<td>Projection</td>
<td>Person attributes own unacceptable impulses, motives, or desires to other individuals.</td>
<td>The executive who repressed his destructive desires may project his anger onto his boss and claim that it is actually the boss who is hostile.</td>
</tr>
<tr>
<td>Rationalization</td>
<td>Person creates a socially acceptable reason for an action that actually reflects unacceptable motives.</td>
<td>A student explains away poor grades by citing the importance of the “total experience” of going to college and claiming that too much emphasis on grades would actually interfere with a well-rounded education.</td>
</tr>
<tr>
<td>Displacement</td>
<td>Person displaces hostility away from a dangerous object and onto a safer substitute.</td>
<td>After a perfect parking spot is taken by a person who cuts in front of your car, you release your pent-up anger by starting an argument with your roommate.</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>Person represses emotional reactions in favor of overly logical response to a problem.</td>
<td>A woman who has been beaten and raped gives a detached, methodical description of the effects that such attacks may have on victims.</td>
</tr>
<tr>
<td>Regression</td>
<td>Person retreats from an upsetting conflict to an early developmental stage at which no one is expected to behave maturely or responsibly.</td>
<td>A boy who cannot cope with the anger he feels toward his rejecting mother regresses to infantile behavior, soiling his clothes and no longer taking care of his basic needs.</td>
</tr>
</tbody>
</table>
Models of Abnormality

Developmental Stages  Freud proposed that at each stage of development, from infancy to maturity, new events challenge individuals and require adjustments in their id, ego, and superego. If the adjustments are successful, they lead to personal growth. If not, the person may become fixated, or stuck, at an early stage of development. Then all subsequent development suffers, and the individual may well be headed for abnormal functioning in the future. Because parents are the key figures during the early years of life, they are often seen as the cause of improper development.

Freud named each stage of development after the body area that he considered most important to the child at that time. For example, he referred to the first 18 months of life as the oral stage. During this stage, children fear that the mother who feeds and comforts them will disappear. Children whose mothers consistently fail to gratify their oral needs may become fixated at the oral stage and display an “oral character” throughout their lives, one marked by extreme dependence or extreme mistrust. Such persons are particularly prone to develop depression. As you will see in later chapters, Freud linked fixations at the other stages of development—anal (18 months to 3 years of age), phallic (3 to 5 years), latency (5 to 12 years), and genital (12 years to adulthood)—to yet other kinds of psychological dysfunction.

How Do Other Psychodynamic Explanations Differ from Freud’s?

Personal and professional differences between Freud and his colleagues led to a split in the Vienna Psychoanalytic Society early in the twentieth century. Carl Jung, Alfred Adler, and others developed new theories. Although the new theories departed from Freud’s ideas in important ways, each held on to Freud’s belief that human functioning is shaped by dynamic (interacting) psychological forces. Thus all such theories, including Freud’s, are referred to as psychodynamic.

Three of today’s most influential psychodynamic theories are ego theory, self theory, and object relations theory. Ego theorists emphasize the role of the ego and consider it a more independent and powerful force than Freud did (Sharf, 2012). Self theorists, in contrast, give the greatest attention to the role of the self—the unified personality. They believe that the basic human motive is to strengthen the wholeness of the self (Dunn, 2013; Kohut, 2001, 1977). Object relations theorists propose that people are motivated mainly by a need to have relationships with others and that severe problems in the relationships between children and their caregivers may lead to abnormal development (Yun et al., 2013; Kernberg, 2005, 2001, 1997).

Psychodynamic Therapies

Psychodynamic therapies range from Freudian psychoanalysis to modern therapies based on self theory or object relations theory. Psychodynamic therapists seek to uncover past traumas and the inner conflicts that have resulted from them. They try to help clients resolve, or settle, those conflicts and to resume personal development.

According to most psychodynamic therapists, therapists must subtly guide therapy discussions so that the patients discover their underlying problems for themselves. To aid in the process, the therapists rely on such techniques as free association, therapist interpretation, catharsis, and working through.

Free Association  In psychodynamic therapies, the patient is responsible for starting and leading each discussion. The therapist tells the patient to describe any thought, feeling, or image that comes to mind, even if it seems unimportant. This practice is known as free association. The therapist expects that the patient’s associations will eventually uncover unconscious events. In the following excerpts

- ego defense mechanisms  According to psychoanalytic theory, strategies developed by the ego to control unacceptable id impulses and to avoid or reduce the anxiety they arouse.
- superego  According to Freud, the psychological force that represents a person’s values and ideals.
- fixation  According to Freud, a condition in which the id, ego, and superego do not mature properly and are frozen at an early stage of development.
- ego theory  The psychodynamic theory that emphasizes the role of the ego and considers it an independent force.
- self theory  The psychodynamic theory that emphasizes the role of the self—our unified personality.
- object relations theory  The psychodynamic theory that views the desire for relationships as the key motivating force in human behavior.
- free association  A psychodynamic technique in which the patient describes any thought, feeling, or image that comes to mind, even if it seems unimportant.
from a famous psychodynamic case, notice how free association helps a woman to discover threatening impulses and conflicts within herself:

**Patient:** So I started walking, and walking, and decided to go behind the museum and walk through [New York's] Central Park. So I walked and went through a back field and felt very excited and wonderful. I saw a park bench next to a clump of bushes and sat down. There was a rustle behind me and I got frightened. I thought of men concealing themselves in the bushes. I thought of the sex perverts I read about in Central Park. I wondered if there was someone behind me exposing himself. The idea is repulsive, but exciting too. I think of father now and feel excited. I think of an erect penis. This is connected with my father. There is something about this pushing in my mind. I don’t know what it is, like on the border of my memory. (Pause)

**Therapist:** Mm-hmm. (Pause) On the border of your memory?

**Patient:** (The patient breathes rapidly and seems to be under great tension.) As a little girl, I slept with my father. I get a funny feeling. I get a funny feeling over my skin, tingly-like. It’s a strange feeling, like a blindness, like not seeing something. My mind blurs and spreads over anything I look at. I’ve had this feeling off and on since I walked in the park. My mind seems to blank off like I can’t think or absorb anything.

(Wolberg, 2005, 1967, p. 662)

**Therapist Interpretation** Psychodynamic therapists listen carefully as patients talk, looking for clues, drawing tentative conclusions, and sharing interpretations when they think the patient is ready to hear them. Interpretations of three phenomena are particularly important—resistance, transference, and dreams.

Patients are showing resistance, an unconscious refusal to participate fully in therapy, when they suddenly cannot free associate or when they change a subject to avoid a painful discussion. They demonstrate transference when they act and feel toward the therapist as they did or do toward important persons in their lives, especially their parents, siblings, and spouses. Consider again the woman who walked in Central Park. As she continues talking, the therapist helps her to explore her transference:

**Patient:** I get so excited by what is happening here. I feel I’m being held back by needing to be nice. I’d like to blast loose sometimes, but I don’t dare.

**Therapist:** Because you fear my reaction?

**Patient:** The worst thing would be that you wouldn’t like me. You wouldn’t speak to me friendly; you wouldn’t smile; you’d feel you can’t treat me and discharge me from treatment. But I know this isn’t so, I know it.

**Therapist:** Where do you think these attitudes come from?

**Patient:** When I was nine years old, I read a lot about great men in history. I’d quote them and be dramatic. I’d want a sword at my side; I’d dress like an Indian. Mother would scold me. Don’t frown, don’t talk so much. Sit on your hands, over and over again. I did all kinds of things. I was a naughty child. She told me I’d be hurt. Then at fourteen I fell off a horse and broke my back. I had to be in bed. Mother told me on the day I went riding not to, that I’d get hurt because the ground was frozen. I was a stubborn, self-willed child. Then I went against her will and suffered an accident that changed my life, a fractured back. Her attitude was, “I told you so.” I was put in a cast and kept in bed for months.

(Wolberg, 2005, 1967, p. 662)
Finally, many psychodynamic therapists try to help patients interpret their dreams (Russo, 2014) (see Table 3-2). Freud (1924) called dreams the “royal road to the unconscious.” He believed that repression and other defense mechanisms operate less completely during sleep and that dreams, if correctly interpreted, can reveal unconscious instincts, needs, and wishes. Freud identified two kinds of dream content—manifest and latent. Manifest content is the consciously remembered dream; latent content is its symbolic meaning. To interpret a dream, therapists must translate its manifest content into its latent content.

**Catharsis** Insight must be an emotional as well as an intellectual process. Psychodynamic therapists believe that patients must experience catharsis, a reliving of past repressed feelings, if they are to settle internal conflicts and overcome their problems.

**Working Through** A single episode of interpretation and catharsis will not change the way a person functions. The patient and therapist must examine the same issues over and over in the course of many sessions, each time with greater clarity. This process, called working through, usually takes a long time, often years.

**Current Trends in Psychodynamic Therapy** The past 40 years have witnessed significant changes in the way many psychodynamic therapists conduct sessions. An increased demand for focused, time-limited psychotherapies has resulted in efforts to make psychodynamic therapy more efficient and affordable. Two current psychodynamic approaches that illustrate this trend are short-term psychodynamic therapies and relational psychoanalytic therapy.

**SHORT-TERM PSYCHODYNAMIC THERAPIES** In several short versions of psychodynamic therapy, patients choose a single problem—a dynamic focus—to work on, such as difficulty getting along with other people (Frederickson, 2013; Wolitzky, 2011). The therapist and patient focus on this problem throughout the treatment and work only on the psychodynamic issues that relate to it (such as unresolved oral needs). Only a limited number of studies have tested the effectiveness of these short-term psychodynamic therapies, but their findings do suggest that the approaches are sometimes quite helpful to patients (Levy, Ablon, & Kächele, 2012; Wolitzky, 2011).

**RELATIONAL PSYCHOANALYTIC THERAPY** Whereas Freud believed that psychodynamic therapists should take on the role of a neutral, distant expert during a treatment session, a contemporary school of psychodynamic therapy referred to as relational psychoanalytic therapy argues that therapists are key figures in the lives of patients—figures whose reactions and beliefs should be included in the therapy process (Ringstrom, 2014; Luborsky et al., 2011). Thus, a key principle of relational therapy is that therapists should also disclose things about themselves, particularly their own reactions to patients, and try to establish more equal relationships with patients.

**Assessing the Psychodynamic Model**

Freud and his followers have helped change the way abnormal functioning is understood. Largely because of their work, a wide range of theorists today look for answers outside of biological processes. Psychodynamic theorists have also helped

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**Percent of Research Participants Who Have Had Common Dreams**

<table>
<thead>
<tr>
<th>Dream Description</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being chased or pursued, not injured</td>
<td>78%</td>
<td>83%</td>
</tr>
<tr>
<td>Sexual experiences</td>
<td>85</td>
<td>73</td>
</tr>
<tr>
<td>Falling</td>
<td>73</td>
<td>74</td>
</tr>
<tr>
<td>School, teachers, studying</td>
<td>57</td>
<td>71</td>
</tr>
<tr>
<td>Arriving too late, e.g., for a train</td>
<td>55</td>
<td>62</td>
</tr>
<tr>
<td>On the verge of falling</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>Trying to do something repeatedly</td>
<td>55</td>
<td>53</td>
</tr>
<tr>
<td>A person living as dead</td>
<td>43</td>
<td>59</td>
</tr>
<tr>
<td>Flying or soaring through the air</td>
<td>58</td>
<td>44</td>
</tr>
<tr>
<td>Sensing a presence vividly</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>Failing an examination</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>Being physically attacked</td>
<td>40</td>
<td>44</td>
</tr>
<tr>
<td>Being frozen with fright</td>
<td>32</td>
<td>44</td>
</tr>
<tr>
<td>A person now dead as living</td>
<td>37</td>
<td>39</td>
</tr>
<tr>
<td>Being a child again</td>
<td>33</td>
<td>38</td>
</tr>
</tbody>
</table>

us to understand that abnormal functioning may be rooted in the same processes as normal functioning (see PsychWatch below). Psychological conflict is a common experience; it leads to abnormal functioning only if the conflict becomes excessive.

Freud and his many followers have also had a monumental impact on treatment. They were the first to apply theory systematically to treatment. They were also the first to demonstrate the potential of psychological, as opposed to biological, treatment, and their ideas have served as starting points for many other psychological treatments.

At the same time, the psychodynamic model has its shortcomings. Its concepts are hard to research (Prochaska & Norcross, 2013; Levy et al., 2012). Because processes such as id drives, ego defenses, and fixation are abstract and supposedly operate at an unconscious level, there is no way of knowing for certain if they are occurring. Not surprisingly, then, psychodynamic explanations and treatments have received limited research support over the years, and psychodynamic theorists rely largely on evidence provided by individual case studies. Nevertheless, recent

What are some of the ways that Freud’s theories have affected literature, film and television, philosophy, child rearing, and education in Western society?

PsychWatch

Maternal Instincts

On an August day in 1996, a 3-year-old boy climbed over a barrier at the Brookfield Zoo in Illinois and fell 24 feet onto the cement floor of the gorilla compound. An 8-year-old 160-pound gorilla named Binti-Jua picked up the child and cradled his limp body in her arms. The child’s mother, fearing the worst, screamed out, “The gorilla’s got my baby!” But Binti protected the boy as if he were her own. She held off the other gorillas, rocked him gently, and carried him to the entrance of the gorilla area, where rescue workers were waiting. Within hours, the incident was seen on videotape replays around the world, and Binti was being hailed for her maternal instincts.

When Binti was herself an infant, she had been removed from her mother, Lulu, who did not have enough milk. To make up for this loss, keepers at the zoo worked around the clock to nurture Binti; she was always being held in someone’s arms. When Binti became pregnant at age 6, trainers were afraid that the early separation from her mother would leave her ill prepared to raise an infant of her own. So they gave her mothering lessons and taught her to nurse and carry around a stuffed doll.

After the incident at the zoo, clinical theorists had a field day interpreting the gorilla’s gentle and nurturing care for the child, each within his or her preferred theory. Many evolutionary theorists, for example, viewed the behavior as an expression of the maternal instincts that have helped the gorilla species to survive and evolve. Some psychodynamic theorists suggested that the gorilla was expressing feelings of attachment and bonding, which she had already felt with her own 17-month-old daughter. And behaviorists held that the gorilla may have been imitating the nurturing behavior that she had observed in human models during her own infancy or enacting the parenting training that she had received during her pregnancy. In the meantime, Binti-Jua, the heroic gorilla, returned to her relatively quiet and predictable life at the zoo.
Models of Abnormality

research evidence suggests that long-term psychodynamic therapy may be helpful for many persons with long-term complex disorders (Kunst, 2014; Safran, 2013; Levy et al., 2012), and 18 percent of today’s clinical psychologists identify themselves as psychodynamic therapists (Prochaska & Norcross, 2013, 2010).

The Behavioral Model

Like psychodynamic theorists, behavioral theorists believe that our actions are determined largely by our experiences in life. However, the behavioral model concentrates on behaviors, the responses an organism makes to its environment. Behaviors can be external (going to work, say) or internal (having a feeling or thought). In turn, behavioral theorists base their explanations and treatments on principles of learning, the processes by which these behaviors change in response to the environment.

Many learned behaviors help people to cope with daily challenges and to lead happy, productive lives. However, abnormal behaviors also can be learned. Behaviorists who try to explain Philip Berman’s problems might view him as a man who has received improper training: He has learned behaviors that offend others and repeatedly work against him.

Whereas the psychodynamic model had its beginnings in the clinical work of physicians, the behavioral model began in laboratories where psychologists were running experiments on conditioning, simple forms of learning. The researchers manipulated stimuli and rewards, then observed how their manipulations affected the responses of their research participants.

During the 1950s, many clinicians became frustrated with what they viewed as the vagueness and slowness of the psychodynamic model. Some of them began to apply the principles of learning to the study and treatment of psychological problems. Their efforts gave rise to the behavioral model of abnormality.

How Do Behaviorists Explain Abnormal Functioning?

Learning theorists have identified several forms of conditioning, and each may produce abnormal behavior as well as normal behavior. In operant conditioning, for example, humans and animals learn to behave in certain ways as a result of receiving rewards—consequences of one kind or another—whenever they do so. In modeling, individuals learn responses simply by observing other individuals and repeating their behaviors.

In a third form of conditioning, classical conditioning, learning occurs by temporal association. When two events repeatedly occur close together in time, they become fused in a person’s mind, and before long the person responds in the same way to both events. If one event produces a response of joy, the other brings joy as well; if one event brings feelings of relief, so does the other. A closer look at this form of conditioning illustrates how the behavioral model can account for abnormal functioning.

Ivan Pavlov (1849–1936), a famous Russian physiologist, first demonstrated classical conditioning with animal studies. He placed a bowl of meat powder before a dog, producing the natural response that all dogs have to meat: They start to salivate (see Figure 3-3). Next Pavlov added a step: Just before presenting the dog with meat powder, he sounded a bell. After several such pairings of bell tone and presentation of meat powder, Pavlov noted that the dog began to salivate as soon as it heard the bell. The dog had learned to salivate in response to a sound.
In the vocabulary of classical conditioning, the meat in this demonstration is an *unconditioned stimulus* (US). It elicits the *unconditioned response* (UR) of salivation, that is, a natural response with which the dog is born. The sound of the bell is a *conditioned stimulus* (CS), a previously neutral stimulus that comes to be linked with meat in the dog’s mind. As such, it too produces a salivation response. When the salivation response is produced by the conditioned stimulus rather than by the unconditioned stimulus, it is called a *conditioned response* (CR).

<table>
<thead>
<tr>
<th>Before Conditioning</th>
<th>After Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS: Tone → No response</td>
<td>CS: Tone → CR: Salivation</td>
</tr>
</tbody>
</table>

Classical conditioning explains many familiar behaviors. The romantic feelings a young man experiences when he smells his girlfriend’s perfume, say, may represent a conditioned response. Initially, this perfume may have had little emotional effect on him, but because the fragrance was present during several romantic encounters, it came to elicit a romantic response.

Abnormal behaviors, too, can be acquired by classical conditioning. Consider a young boy who is repeatedly frightened by a neighbor’s large German shepherd dog. Whenever the child walks past the neighbor’s front yard, the dog barks loudly and lunges at him, stopped only by a rope tied to the porch. In this unfortunate situation, the boy’s parents are not surprised to discover that he develops a fear of dogs. They are stumped, however, by another intense fear the child displays, a fear of sand. They cannot understand why he cries whenever they take him to the beach and screams in fear if sand even touches his skin.

Where did this fear of sand come from? Classical conditioning. It turns out that a big sandbox is set up in the neighbor’s front yard for the dog to play in. Every time the dog barks and lunges at the boy, the sandbox is there too. After repeated pairings of this kind, the child comes to fear sand as much as he fears the dog.

Behavioral Therapies

Behavioral therapists aim to identify the behaviors that are causing a person’s problems and then try to replace them with more appropriate ones by applying the principles of classical conditioning, operant conditioning, or modeling (Antony, 2014). The therapist’s attitude toward the client is that of teacher rather than healer.

Classical conditioning treatments, for example, may be used to change abnormal reactions to particular stimuli. **Systematic desensitization** is one such method, often applied in cases of *phobia*—a specific and unreasonable fear. In this step-by-step procedure, clients learn to react calmly instead of with intense fear to the objects or situations they dread (Fishman et al., 2011; Wolpe, 1997, 1995, 1990). First, they are taught the skill of relaxation over the course of several sessions. Next, they construct a *fear hierarchy*, a list of feared objects or situations, starting with those that are less feared and ending with the ones that are most dreaded. Here is the hierarchy developed by a man who was afraid of dogs:

1. Read the word “dog” in a book.
2. Hear a neighbor’s barking dog.
3. See photos of small dogs.
4. See photos of large dogs.
5. See a movie in which a dog is prominently featured.
6. Be in the same room with a quiet, small dog.
7. Pet a small, cuddly dog.
8. Be in the same room with a large dog.
10. Play roughhouse with a dog.

Desensitization therapists next have their clients either imagine or actually confront each item on the hierarchy while in a state of relaxation. In step-by-step pairings of feared items and relaxation, clients move up the hierarchy until at last they can face every one of the items without experiencing fear. As you will read in Chapter 5, research has shown systematic desensitization and other classical conditioning techniques to be effective in treating phobias (Antony, 2014; Kraft & Kraft, 2010).

Assessing the Behavioral Model

The behavioral model has become a powerful force in the clinical field. Various behavioral theories have been proposed over the years, and many treatment techniques have been developed. As you can see in Figure 3-4 on the next page, approximately 15 percent of today’s clinical psychologists report that their approach is mainly behavioral (Prochaska & Norcross, 2013).

Perhaps the greatest appeal of the behavioral model is that it can be tested in the laboratory, whereas psychodynamic theories generally cannot. The behaviorists’ basic concepts—stimulus, response, and reward—can be observed and measured. Experimenters have, in fact, successfully used the principles of learning to create clinical symptoms in laboratory participants, suggesting that psychological disorders may indeed develop in the same way. In addition, research has found that behavioral treatments can be helpful to people with specific fears, compulsive behavior, social deficits, mental retardation, and other problems (Antony, 2014).

At the same time, research has also revealed weaknesses in the model. Certainly behavioral researchers have produced specific symptoms in participants. But are these symptoms ordinarily acquired in this way? There is still no indisputable evidence that most people with psychological disorders are victims of improper conditioning. Similarly, behavioral therapies have limitations. The improvements noted in the therapist’s office do not always extend to real life. Nor do they necessarily last without continued therapy.

Modeling may account for some forms of abnormal behavior. A well-known study by Albert Bandura and his colleagues (1963) demonstrated that children learned to abuse a doll by observing an adult hit it. Children who had not been exposed to the adult model did not mistreat the doll.

See and do

systematic desensitization A behavioral treatment in which clients with phobias learn to react calmly instead of with intense fear to the objects or situations they dread.
Finally, some critics hold that the behavioral view is too simplistic, that its concepts fail to account for the complexity of behavior. In 1977 Albert Bandura, a leading behaviorist, argued that in order to feel happy and function effectively people must develop a positive sense of self-efficacy. That is, they must know that they can master and perform needed behaviors whenever necessary. Other behaviorists of the 1960s and 1970s similarly recognized that human beings engage in cognitive behaviors, such as anticipating or interpreting—ways of thinking that until then had been largely ignored in behavioral theory and therapy. These individuals developed cognitive-behavioral explanations that took unseen cognitive behaviors into greater account (Redding, 2014; Meichenbaum, 1993; Goldiamond, 1965) and cognitive-behavioral therapies that helped clients to change both counterproductive behaviors and dysfunctional ways of thinking. Cognitive-behavioral theorists and therapists bridge the behavioral model and the cognitive model, the view to which we turn next.

The Cognitive Model

Philip Berman, like the rest of us, has cognitive abilities—special intellectual capacities to think, remember, and anticipate. These abilities can help him accomplish a great deal in life. Yet they can also work against him. As he thinks about his experiences, Philip may misinterpret them in ways that lead to poor decisions, maladaptive responses, and painful emotions.

In the early 1960s two clinicians, Albert Ellis (1962) and Aaron Beck (1967), proposed that cognitive processes are at the center of behaviors, thoughts, and emotions and that we can best understand abnormal functioning by looking to cognition—a perspective known as the cognitive model. Ellis and Beck claimed that clinicians must ask questions about the assumptions and attitudes that color a client’s perceptions, the thoughts running through that person’s mind, and the conclusions to which they are leading. Other theorists and therapists soon embraced and expanded these ideas and techniques.

How Do Cognitive Theorists Explain Abnormal Functioning?

According to cognitive theorists, abnormal functioning can result from several kinds of cognitive problems. Some people may make assumptions and adopt attitudes that are disturbing and inaccurate (Beck & Weishaar, 2014; Ellis, 2014). Philip Berman, for example, often seems to assume that his past history has locked him in his present situation. He believes that he was victimized by his parents and that he is now forever doomed by his past. He seems to approach all new experiences and relationships with expectations of failure and disaster.

Illogical thinking processes are another source of abnormal functioning, according to cognitive theorists. Beck, for example, has found that some people consistently think in illogical ways and keep arriving at self-defeating conclusions (Beck & Weishaar, 2014). As you will see in Chapter 7, he has identified a number of illogical thought processes regularly found in depression, such as overgeneralization, the drawing of broad negative conclusions on the basis of a single insignificant event. One depressed student couldn’t remember the date of Columbus’ third voyage to America during a history class. Overgeneralizing, she spent the rest of the day in despair over her wide-ranging ignorance.
Cognitive Therapies

According to cognitive therapists, people with psychological disorders can overcome their problems by developing new, more functional ways of thinking. Because different forms of abnormality may involve different kinds of cognitive dysfunctioning, cognitive therapists have developed a number of strategies. Beck, for example, has developed an approach that is widely used, particularly in cases of depression (Beck & Weishaar, 2014).

In Beck’s approach, called simply cognitive therapy, therapists help clients recognize the negative thoughts, biased interpretations, and errors in logic that dominate their thinking and, according to Beck, cause them to feel depressed. Therapists also guide clients to challenge their dysfunctional thoughts, try out new interpretations, and ultimately apply the new ways of thinking in their daily lives. As you will see in Chapter 8, people with depression who are treated with Beck’s approach improve much more than those who receive no treatment.

In the excerpt that follows, a cognitive therapist guides a depressed 26-year-old graduate student to see the link between the way she interprets her experiences and the way she feels and to begin questioning the accuracy of her interpretations:

**Therapist:** How do you understand it?
**Patient:** I get depressed when things go wrong. Like when I fail a test.
**Therapist:** How can failing a test make you depressed?
**Patient:** Well, if I fail I’ll never get into law school.
**Therapist:** So failing the test means a lot to you. But if failing a test could drive people into clinical depression, wouldn’t you expect everyone who failed the test to have a depression? . . . Did everyone who failed get depressed enough to require treatment?
**Patient:** No, but it depends on how important the test was to the person.
**Therapist:** Right, and who decides the importance?
**Patient:** I do.
**Therapist:** And so, what we have to examine is your way of viewing the test (or the way that you think about the test) and how it affects your chances of getting into law school. Do you agree?
**Patient:** Right. . .
**Therapist:** Now what did failing mean?
**Patient:** (Tearful) That I couldn’t get into law school.
**Therapist:** And what does that mean to you?
**Patient:** That I’m just not smart enough.
**Therapist:** Anything else?
**Patient:** That I can never be happy.
**Therapist:** And how do these thoughts make you feel?
**Patient:** Very unhappy.
**Therapist:** So it is the meaning of failing a test that makes you very unhappy. In fact, believing that you can never be happy is a powerful factor in producing unhappiness. So, you get yourself into a trap—by definition, failure to get into law school equals “I can never be happy.”

(Beat et al., 1979, pp. 145–146)

How might your efforts to reason with a depressed friend differ from Beck’s cognitive therapy strategies for people with depression?

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**self-efficacy** The belief that one can master and perform needed behaviors whenever necessary.

**cognitive-behavioral therapies** Therapy approaches that seek to help clients change both counterproductive behaviors and dysfunctional ways of thinking.

**cognitive therapy** A therapy developed by Aaron Beck that helps people recognize and change their faulty thinking processes.
Assessing the Cognitive Model

The cognitive model has had very broad appeal. In addition to a large number of cognitive-behavioral clinicians who apply both cognitive and learning principles in their work, many cognitive clinicians focus exclusively on client interpretations, attitudes, assumptions, and other cognitive processes. Altogether approximately 31 percent of today’s clinical psychologists identify their approach as cognitive (Prochaska & Norcross, 2013).

The cognitive model is popular for several reasons. First, it focuses on a process unique to human beings—the process of human thought—and many theorists from varied backgrounds find themselves drawn to a model that considers thought to be the primary cause of normal and abnormal behavior.

Cognitive theories also lend themselves to research. Investigators have found that people with psychological disorders often make the kinds of assumptions and errors in thinking the theorists claim (Ingram et al., 2007). Yet another reason for the popularity of this model is the impressive performance of cognitive and cognitive-behavioral therapies in formats ranging from individual and group therapy to cybertherapy (see PsychWatch on the next page). They have proved very effective for treating depression, panic disorder, social phobia, and sexual dysfunctions, for example (Barlow, 2014; Zu et al., 2014; Clark & Beck, 2012).

Nevertheless, the cognitive model, too, has its drawbacks. First, although disturbed cognitive processes are found in many forms of abnormality, their precise role has yet to be determined. The cognitions seen in psychologically troubled people could well be a result rather than a cause of their difficulties. Second, although cognitive and cognitive-behavioral therapies are clearly of help to many people, they do not help everyone. Is it enough simply to change cognitions? Can such changes make a general and lasting difference in the way people feel and behave? A growing body of research suggests that it is not always possible to achieve the kinds of cognitive changes proposed by Beck and other cognitive therapists (Sharf, 2012).

In response to such limitations, a new group of cognitive and cognitive-behavioral therapies, sometimes called the new wave of cognitive therapies, has emerged in recent years (Prochaska & Norcross, 2013; Hollon & DiGiuseppe, 2011). These new approaches, such as the widely used Acceptance and Commitment Therapy (ACT), help clients to accept many of their problematic thoughts rather than judge them, act on them, or try fruitlessly to change them (Swain et al., 2013; Hayes & Lillis, 2012). The hope is that by recognizing such thoughts for what they are—just thoughts—clients will eventually be able to let them pass through their awareness without being particularly troubled by them.

As you will see in Chapter 5, ACT and other new-wave cognitive therapies often employ mindfulness-based techniques to help their clients achieve such acceptance. These techniques borrow heavily from a form of meditation called mindfulness meditation, which teaches individuals to pay attention to the thoughts and feelings that are flowing through their minds during meditation and to accept such thoughts in a nonjudgmental way. Early research indicates that ACT and other new-wave cognitive therapies are often helpful in the treatment of anxiety and depression (Swain et al., 2013).

A final drawback of the cognitive model is that, like the other models you have read about, it is narrow in certain ways. Although cognition is a very special human dimension, it is still only one part of human functioning. Aren’t human beings more than the sum of their thoughts, emotions, and behaviors? Shouldn’t explanations of human functioning also consider broader issues, such as how people approach life, what value they extract from it, and how they deal with the question of life’s meaning? This is the position of the humanistic-existential model.
As you read in Chapter 1, computer-based treatment, or cybertherapy, has come to complement, and in some instances replace, traditional face-to-face therapy over the past few decades (Ringwood, 2013). But what exactly is cybertherapy, where did it come from, and is it useful?

The clinical field’s first journey into the digital world took the form of computer software therapy programs (Harklute, 2010; Tantam, 2006). These programs, which continue to be popular, are designed to reduce emotional distress through typed conversations between human “clients” and their computers. The software programmers try to apply the basic principles of actual therapy. One program, for example, helps people state their problems in “if-then” statements, a technique similar to that used by cognitive therapists. Moreover, as you will see later in this chapter, some software therapy programs have users interact not only with printed words or verbalizations that are being generated by the program but also with avatars, on-screen virtual human figures (Reamer, 2013).

Advocates of software therapy programs argue that many people find it easier to disclose sensitive personal information to a computer than to a therapist, and indeed research indicates that some of the programs are helpful to a degree (Emmelkamp, 2011; Harklute, 2010). Computer experts currently are working to develop software programs for recognizing clients’ faces and emotions. This development will likely increase the versatility and appeal of software therapy programs.

Another form of cybertherapy, e-mail therapy, has exploded in popularity over the past decade. Thousands of therapists have set up online services that invite people with problems to e-mail their questions and concerns (Murphy, Mitchell, & Hallett, 2011; Mulhauser, 2010). These services can cost as much as $2 to $3 per minute. Services of this kind have raised concerns about the quality of care and about confidentiality (Fenichel, 2011).

Many e-mail therapists do not even have advanced clinical training. Nevertheless, the use of e-mail therapy continues to grow by leaps and bounds.

Also on the rise is visual e-therapy (Hoffman, 2011; Strong, 2010), which more closely mimics the conventional therapy experience. A client sets up an appointment with a therapist and, with the aid of Skype or a webcam, the two proceed to have a face-to-face session. The advantage? Clients can receive counseling conveniently while sitting at home or in their office, and they can have access to a counselor who is located even thousands of miles away. The key disadvantage? Once again, quality control (Fenichel, 2011).

Still more common than either e-mail therapy or visual e-therapies are Internet chat groups and “virtual” support groups. Tens of thousands of these groups are currently “in session” around the clock for everything from depression to substance abuse, anxiety, sexual dysfunctions, and eating disorders (Hucker & McCabe, 2014; Moskowitz, 2008, 2001). Like in-person self-help groups, the online chat groups provide opportunities for people with similar problems to communicate with one another and freely trade information, advice, and empathy. Of course, unlike members of in-person self-help groups, people who choose Internet chat group therapy do not know who is on the other end of the computer connection or whether the advice they receive is well intentioned or at all appropriate.

Cybertherapy is still being developed and researched, and its actual effectiveness has yet to be determined. At the same time, the rapid growth of this approach serves as a reminder that digital technology’s impact on the mental health field is as powerful and potentially useful as its impact on most other fields in our society.
Philip Berman is more than the sum of his psychological conflicts, learned behaviors, or cognitions. Being human, he also has the ability to pursue philosophical goals such as self-awareness, strong values, a sense of meaning in life, and freedom of choice. According to humanistic and existential theorists, Philip’s problems can be understood only in the light of such complex goals. Humanistic and existential theorists are often grouped together—in an approach known as the humanistic-existential model—because of their common focus on these broader dimensions of human existence. At the same time, there are important differences between them.

**Humanists**, the more optimistic of the two groups, believe that human beings are born with a natural tendency to be friendly, cooperative, and constructive. People, these theorists propose, are driven to **self-actualize**—that is, to fulfill this potential for goodness and growth. They can do so, however, only if they honestly recognize and accept their weaknesses as well as their strengths and establish satisfying personal values to live by. Humanists further suggest that self-actualization leads naturally to a concern for the welfare of others and to behavior that is loving, courageous, spontaneous, and independent (Maslow, 1970).

**Existentialists** agree that human beings must have an accurate awareness of themselves and live meaningful—they say “authentic”—lives in order to be psychologically well adjusted. These theorists do not believe, however, that people are naturally inclined to live positively. They believe that from birth we have total freedom, either to face up to our existence and give meaning to our lives or to shrink from that responsibility. Those who choose to “hide” from responsibility and choice will view themselves as helpless and may live empty, inauthentic, and dysfunctional lives as a result.

The humanistic and existential views of abnormality both date back to the 1940s. At that time Carl Rogers (1902–1987), often considered the pioneer of the humanistic perspective, developed **client-centered therapy**, a warm and supportive approach that contrasted sharply with the psychodynamic techniques of the day. He also proposed a theory of personality that paid little attention to irrational instincts and conflicts.

The existential view of personality and abnormality appeared during this same period. Many of its principles came from the ideas of nineteenth-century European existential philosophers who held that human beings are constantly defining and so giving meaning to their existence through their actions (Yalom, 2014).

The humanistic and existential theories, and their uplifting implications, were extremely popular during the 1960s and 1970s, years of considerable soul-searching and social upheaval in Western society. They have since lost some of their popularity, but they continue to influence the ideas and work of many clinicians. In particular, humanistic principles are apparent throughout positive psychology (the study and enhancement of positive feelings, traits, abilities, and selfless virtues), an area of psychology that, as you read in Chapter 1, has gained much momentum in recent years (see page 20).

### Rogers’ Humanistic Theory and Therapy

According to Carl Rogers, the road to dysfunction begins in infancy (Raskin, Rogers, & Witty, 2014; Rogers, 1987, 1951). We all have a basic need to receive **positive regard** from the important people in our lives (primarily our parents). Those who receive **unconditional** (nonjudgmental) **positive regard** early in life are likely to develop **unconditional self-regard**. That is, they come to recognize their worth as persons, even while recognizing that they are not perfect. Such people are in a good position to actualize their positive potential.
Unfortunately, some children repeatedly are made to feel that they are not worthy of positive regard. As a result, they acquire conditions of worth, standards that tell them they are lovable and acceptable only when they conform to certain guidelines. To maintain positive self-regard, these people have to look at themselves very selectively, denying or distorting thoughts and actions that do not measure up to their conditions of worth. They thus acquire a distorted view of themselves and their experiences. They do not know what they are truly feeling, what they genuinely need, or what values and goals would be meaningful for them. Problems in functioning are then inevitable.

Rogers might view Philip Berman as a man who has gone astray. Rather than striving to fulfill his positive human potential, he drifts from job to job and relationship to relationship. In every interaction he is defending himself, trying to interpret events in ways he can live with, usually blaming his problems on other people. Nevertheless, his basic negative self-image continually reveals itself. Rogers would probably link this problem to the critical ways Philip was treated by his mother throughout his childhood.

Clinicians who practice Rogers’ client-centered therapy try to create a supportive climate in which clients feel able to look at themselves honestly and acceptingly (Raskin et al., 2014). The therapist must display three important qualities throughout the therapy—unconditional positive regard (full and warm acceptance for the client), accurate empathy (skillful listening and restating), and genuineness (sincere communication). In the following classic case, the therapist uses all these qualities to move the client toward greater self-awareness:

**Client:** Yes, I know I shouldn’t worry about it, but I do. Lots of things—money, people, clothes. In classes I feel that everyone’s just waiting for a chance to jump on me. . . . When I meet somebody I wonder what he’s actually thinking of me. Then later on I wonder how I match up to what he’s come to think of me.

**Therapist:** You feel that you’re pretty responsive to the opinions of other people.

**Client:** Yes, but it’s things that shouldn’t worry me.

**Therapist:** You feel that it’s the sort of thing that shouldn’t be upsetting, but they do get you pretty much worried anyway.

**Client:** Just some of them. Most of those things do worry me because they’re true. The ones I told you, that is. But there are lots of little things that aren’t true. . . . Things just seem to be piling up, piling up inside of me. . . . It’s a feeling that things were crowding up and they were going to burst.

**Therapist:** You feel that it’s a sort of oppression with some frustration and that things are just unmanageable.

**Client:** In a way, but some things just seem illogical. I’m afraid I’m not very clear here but that’s the way it comes.

**Therapist:** That’s all right. You say just what you think.

*(Snyder, 1947, pp. 2–24)*
In such an atmosphere, clients are expected to feel accepted by their therapists. They then may be able to look at themselves with honesty and acceptance. They begin to value their own emotions, thoughts, and behaviors, and so they are freed from the insecurities and doubts that prevent self-actualization.

Client-centered therapy has not fared very well in research (Prochaska & Norcross, 2013). Although some studies show that participants who receive this therapy improve more than control participants, many other studies have failed to find any such advantage. All the same, Rogers’ therapy has had a positive influence on clinical practice (Raskin et al., 2014). It was one of the first major alternatives to psychodynamic therapy, and it helped open up the clinical field to new approaches. Rogers also helped pave the way for psychologists to practice psychotherapy, which had previously been considered the exclusive territory of psychiatrists. And his commitment to clinical research helped promote the systematic study of treatment. Approximately 2 percent of today’s clinical psychologists, 1 percent of social workers, and 3 percent of counseling psychologists report that they employ the client-centered approach (Prochaska & Norcross, 2013).

Gestalt Theory and Therapy

Gestalt therapy, another humanistic approach, was developed in the 1950s by a charismatic clinician named Frederick (Fritz) Perls (1893–1970). Gestalt therapists, like client-centered therapists, guide their clients toward self-recognition and self-acceptance (Yontef & Jacobs, 2014). But unlike client-centered therapists, they often try to achieve this goal by challenging and even frustrating their clients. Some of Perls’ favorite techniques were skillful frustration, role playing, and employing numerous rules and exercises.

In the technique of skillful frustration, gestalt therapists refuse to meet their clients’ expectations or demands. This use of frustration is meant to help people see how often they try to manipulate others into meeting their needs. In the technique of role playing, the therapists instruct clients to act out various roles. A person may be told to be another person, an object, an alternative self, or even a part of the body. Role playing can become intense, as individuals are encouraged to express emotions fully. Many cry out, scream, kick, or pound. Through this experience they may come to “own” (accept) feelings that previously made them uncomfortable.

Perls also developed a list of rules to ensure that clients will look at themselves more closely. In some versions of gestalt therapy, for example, clients may be required to use “I” language rather than “it” language. They must say, “I am frightened” rather than “The situation is frightening.” Yet another common rule requires clients to stay in the here and now. They have needs now, are hiding their needs now, and must observe them now.

Approximately 1 percent of clinical psychologists and other kinds of clinicians describe themselves as gestalt therapists (Prochaska & Norcross, 2013). Because they believe that subjective experiences and self-awareness cannot be measured objectively, proponents of gestalt therapy have not often performed controlled research on this approach (Yontef & Jacobs, 2014; Leung, Leung, & Ng, 2013).
Spiritual Views and Interventions

For most of the twentieth century, clinical scientists viewed religion as a negative—or at best neutral—factor in mental health (Bonelli & Koenig, 2013; Van Praag, 2011). In the early 1900s, for example, Freud argued that religious beliefs were defense mechanisms, “born from man’s need to make his helplessness tolerable” (1961, p. 23). This negative view of religion now seems to be ending, however. During the past decade, many articles and books linking spiritual issues to clinical treatment have been published, and the ethical codes of psychologists, psychiatrists, and counselors have each concluded that religion is a type of diversity that mental health professionals must respect (Peteet, Lu, & Narrow, 2011).

Researchers have learned that spirituality does, in fact, often correlate with psychological health. In particular, studies have examined the mental health of people who are devout and who view God as warm, caring, helpful, and dependable. Repeatedly, these individuals are found to be less lonely, pessimistic, depressed, or anxious than people without any religious beliefs or those who view God as cold and unresponsive (Bonelli & Koenig, 2013; Day, 2010; Loewenthal, 2007). Such people also seem to cope better with major life stressors—from illness to war—and to attempt suicide less often. In addition, they are less likely to abuse drugs.

Do such correlations indicate that spirituality helps produce greater mental health? Not necessarily. As you’ll recall from Chapter 2, correlations do not indicate causation. It may be, for example, that a sense of optimism leads to more spirituality, and that, independently, optimism contributes to greater mental health. Regardless of how the correlation between spirituality and mental health should be interpreted, many therapists now make a point of including spiritual issues when they treat religious clients (Brown, Elkonin, & Naiker, 2013; Worthington, 2011), and some further encourage clients to use their spiritual resources to help them cope with current stressors (Galanter, 2010). Similarly, a number of religious institutions offer counseling services to their members (see MediaSpeak on the next page).

Existential Theories and Therapy

Like humanists, existentialists believe that psychological dysfunctioning is caused by self-deception; existentialists, however, are talking about a kind of self-deception in which people hide from life’s responsibilities and fail to recognize that it is up to them to give meaning to their lives. According to existentialists, many people become overwhelmed by the pressures of present-day society and so look to others for explanations, guidance, and authority. They overlook their personal freedom of choice and avoid responsibility for their lives and decisions (Yalom, 2014). Such people are left with empty, inauthentic lives. Their dominant emotions are anxiety, frustration, boredom, alienation, and depression.

Existentialists might view Philip Berman as a man who feels overwhelmed by the forces of society. He sees his parents as “rich, powerful, and selfish,” and he perceives teachers, acquaintances, and employers as oppressing. He fails to appreciate his choices in life and his capacity for finding meaning and direction. Quitting becomes a habit with him—he leaves job after job, ends every romantic relationship, and flees difficult situations.

In existential therapy, people are encouraged to accept responsibility for their lives and for their problems. Therapists try to help clients recognize their freedom so that they may choose a different course and live with greater meaning (Yalom, 2014; van Deurzen, 2012; Schneider & Krug, 2010). The precise techniques used
A few weeks ago, one year after his son took his life while struggling with depression, [Rick] Warren, the founding pastor of Saddleback Church, one of the nation’s largest evangelical churches, teamed up with his local Roman Catholic Diocese and the National Alliance on Mental Illness for an event that announced a new initiative to involve the church in the care of serious mental illness.

Their goal is not only to reduce stigma for people with schizophrenia, bipolar disorder, depression and the like, though that is an important part of it. “We are all broken,” Mr. Warren said in his remarks. . . . “We’re all a little bit mentally ill.”

The larger goal is to get the church directly involved with the care of people with serious psychiatric illness by training administrators and pastors to handle psychiatric crises, to set up groups within the church for people with serious mental illness and to establish services within the church for people who need them. These churches are not trying to supplant traditional mental health care. “When someone asks, Should I take medication or pray?” one speaker remarked, “I say, ‘yes.’” But they think that there aren’t enough services available for people who are really sick, and they think that many people don’t turn to them anyway because of the stigma. And so they think that there are a lot of people who aren’t getting the help they need.

They are right. The public mental health system is a woefully underfunded crazy-quilt of uncoordinated agencies. . . . It can be hideously difficult to navigate even for someone who is not hearing hallucinated voices. . . . [And] many psychiatric clients hate the idea of being forcibly medicated.

But they do often go to church. More than 40 percent of Americans say that they attend church nearly every week. Even people who have nowhere to live often go to church.

In an urban Chicago neighborhood where I did many months of research with homeless psychotic women, I found that these women often refused psychiatric care. . . . But fully half of them said that they had a church and that they went to that church at least twice each month, and over 80 percent of them said that God was their best friend—some, that he was their only friend.

Mr. Warren’s initiative is remarkable for several reasons. Evangelical churches don’t go in much for hospital-type care. . . . In a [religious] world that takes demons seriously, it is easy to interpret psychotic symptoms as demonic. One man . . . recalled ruefully that when he told his pastor that his son was hearing voices, the pastor told them only to pray more forcefully.

Even more remarkable is the initiative’s interest in training the ordinary people who work in church offices and hold prayer circles to be actively involved in mental health care. This can sound a little alarming. But in fact . . . a study just published in The Lancet demonstrated that this [kind of] community care [sometimes] produced modestly better outcomes for patients with schizophrenia than care in the psychiatric facility.

. . . Psychiatrists are the least religious of all physicians, and the new initiative may leave them cold. But Mr. Warren has made an impact before: His initiative on H.I.V.-AIDS was partially responsible for generating George W. Bush’s President’s Emergency Plan for AIDS Relief. If this works, it could have a real impact on the mental health system.

We’re desperately in need of something that does.

(T. M. Lurhman is a professor of anthropology at Stanford University and the author of When God Talks Back: Understanding the American Evangelical Relationship With God.)

in existential therapy vary from clinician to clinician. At the same time, most existential therapists place great emphasis on the relationship between therapist and client and try to create an atmosphere of honesty, hard work, and shared learning and growth.

Existential therapists do not believe that experimental methods can adequately test the effectiveness of their treatments. To them, research dehumanizes individuals by reducing them to test measures. Not surprisingly, then, very little controlled research has been devoted to the effectiveness of this approach (Yalom, 2014; Schneider & Krug, 2010). Nevertheless, around 1 percent of today’s clinical psychologists use an approach that is primarily existential (Prochaska & Norcross, 2013).

Assessing the Humanistic-Existential Model

The humanistic-existential model appeals to many people in and out of the clinical field. In recognizing the special challenges of human existence, humanistic and existential theorists tap into an aspect of psychological life that typically is missing from the other models (Watson et al., 2011; Cain, 2007). Moreover, the factors that they say are essential to effective functioning—self-acceptance, personal values, personal meaning, and personal choice—are certainly lacking in many people with psychological disturbances.

The optimistic tone of the humanistic-existential model is also an attraction. Such optimism meshes quite well with the goals and principles of positive psychology (Rashid & Seligman, 2014). Theorists who follow the principles of the humanistic-existential model offer great hope when they assert that, despite past and present events, we can make our own choices, determine our own destiny, and accomplish much. Still another attractive feature of the model is its emphasis on health. Unlike clinicians from some of the other models who see individuals as patients with psychological illnesses, humanists and existentialists view them simply as people who have yet to fulfill their potential.

At the same time, the humanistic-existential focus on abstract issues of human fulfillment gives rise to a major problem from a scientific point of view: These issues are difficult to research. In fact, with the notable exception of Rogers, who tried to investigate his clinical methods carefully, humanists and existentialists have traditionally rejected the use of empirical research. This antiresearch position is just now
beginning to change. Humanistic and existential researchers have conducted several studies in recent years that use appropriate control groups and statistical analyses, and they have found that their therapies can be beneficial in some cases (Schneider & Krug, 2010; Strumpfel, 2006). This newfound interest in research should lead to important insights about the merits of this model in the coming years.

## The Sociocultural Model: Family-Social and Multicultural Perspectives

Philip Berman is also a social and cultural being. He is surrounded by people and by institutions, he is a member of a family and a cultural group, he participates in social relationships, and he holds cultural values. Such forces are always operating upon Philip, setting rules and expectations that guide or pressure him, helping to shape his behaviors, thoughts, and emotions.

According to the sociocultural model, abnormal behavior is best understood in light of the broad forces that influence an individual. What are the norms of the individual's society and culture? What roles does the person play in the social environment? What kind of family structure or cultural background is the person a part of? And how do other people view and react to him or her? In fact, the sociocultural model is composed of two major perspectives—the family-social perspective and the multicultural perspective.

### How Do Family-Social Theorists Explain Abnormal Functioning?

Proponents of the family-social perspective argue that clinical theorists should concentrate on those broad forces that operate directly on an individual as he or she moves through life—that is, family relationships, social interactions, and community events. They believe that such forces help account for both normal and abnormal behavior, and they pay particular attention to three kinds of factors: social labels and roles, social networks, and family structure and communication.

#### Social Labels and Roles

Abnormal functioning can be influenced greatly by the labels and roles assigned to troubled people (Rüsch et al., 2014; Yap et al., 2013; Link et al., 2004, 2001). When people stray from the norms of their society, the society calls them deviant and, in many cases, “mentally ill.” Such labels tend to stick. Moreover, when people are viewed in particular ways, reacted to as “crazy,” and perhaps even encouraged to act sick, they gradually learn to accept and play the assigned social role. Ultimately the label seems appropriate.

A famous study called “On Being Sane in Insane Places” by clinical investigator David Rosenhan (1973) supports this position. Eight normal people, actually colleagues of Rosenhan, presented themselves at various mental hospitals, complaining that they had been hearing voices say the words “empty,” “hollow,” and “thud.” On the basis of this complaint alone, each was diagnosed as having schizophrenia and admitted.

Moreover, the pseudopatients had a hard time convincing others that they were well once they had been given the diagnostic label. Their hospitalizations ranged from 7 to 52 days, even though they behaved normally and stopped reporting symptoms as soon as they were admitted. In addition,
the label “schizophrenia” kept influencing the way the staff viewed and dealt with them. For example, one pseudopatient who paced the corridor out of boredom was, in clinical notes, described as “nervous.” Overall, the pseudopatients came to feel powerless, invisible, and bored.

**Social Connections and Supports** Family-social theorists are also concerned with the social environments in which people operate, including their social and professional relationships. How well do they communicate with others? What kind of signals do they send to or receive from others? Researchers have often found ties between deficiencies in social networks and a person’s functioning (Schwarzbach et al., 2013; Gask et al., 2011; Paykel, 2008, 2006, 2003). They have observed, for example, that people who are isolated and lack social support or intimacy in their lives are more likely to become depressed when under stress and to remain depressed longer than are people with supportive spouses or warm friendships.

Some clinical theorists believe that people who are unwilling or unable to communicate and develop relationships in their everyday lives will often find adequate social contacts online, using social networking sites like Facebook. Although this may be true for some such individuals, research suggests that people’s online relationships tend to parallel their offline relationships (Dolan, 2011). One survey of 172 college students, for example, found that those students with the most friends on Facebook also were particularly social offline, while those who were less willing to communicate with other people offline also tended to initiate far fewer relationships on Facebook (Sheldon, 2008).

**Family Structure and Communication** Of course, one of the important social networks for an individual is his or her family. According to family systems theory, the family is a system of interacting parts—the family members—who interact with one another in consistent ways and follow rules unique to each family (Goldenberg, Goldenberg, & Pelavin, 2014). Family systems theorists believe that the *structure* and *communication* patterns of some families actually force individual members to behave in a way that otherwise seems abnormal. If the members were to behave normally, they would severely strain the family’s usual manner of operation and would actually increase their own and their family’s turmoil.

Family systems theory holds that certain family systems are particularly likely to produce abnormal functioning in individual members. Some families, for example, have an *enmeshed* structure in which the members are grossly overinvolved in one another’s activities, thoughts, and feelings. Children from this kind of family may have great difficulty becoming independent in life (Santiseban et al., 2001). Some families display *disengagement*, which is marked by very rigid boundaries between the members. Children from these families may find it hard to function in a group or to give or request support (Corey, 2012, 2004).

Philip Berman’s angry and impulsive personal style might be seen as the product of a disturbed family structure. According to family systems theorists, the whole family—Philip’s mother, father, and brother, and Philip himself—relate in such a way as to maintain Philip’s behavior. Family theorists might be particularly interested in the conflict between Philip’s mother and father and the imbalance between their parental roles. They might see Philip’s behavior as both a reaction to and stimulus for his parents’ behaviors. With Philip acting out the role of the misbehaving child, or scapegoat, his parents may have little need or time to question their own relationship.

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**BETWEEN THE LINES**

**Being Social**
- Most people text faster when texting persons they like.
- For most people, silence becomes awkward after about four seconds.
- The maximum number of in-person relationships/friendships one can maintain is between 50 and 150.

(Pear, 2013)

**Restructuring the Family**

The number of children living with only one parent has increased from 9% in 1960 to 27% today.

(U.S. Census Bureau, 2010; Yin, 2002; Kanner, 1995)
Family systems theorists would also seek to clarify the precise nature of Philip’s relationship with each parent. Is he enmeshed with his mother and/or disengaged from his father? They would look too at the rules governing the sibling relationship in the family, the relationship between Philip’s parents and brother, and the nature of parent-child relationships in previous generations of the family.

**Family-Social Treatments**

The family-social perspective has helped spur the growth of several treatment approaches, including group, family, and couple therapy, and community treatment. Therapists of any orientation may work with clients in these various formats, applying the techniques and principles of their preferred models (see MindTech below). However, more and more of the clinicians who use these formats believe that psychological problems emerge in family and social settings and are best treated in such settings, and they include special sociocultural strategies in their work.

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**MindTech**

**Have Your Avatar Call My Avatar**

The sociocultural model holds that abnormal behavior is best understood and treated in a social context. Thus, some proponents of this perspective are particularly interested in a relatively new feature in cybertherapy—the use of avatars, three-dimensional graphical representations of the users and/or other key persons in their lives (Reamer, 2013; Pagliari et al., 2012; Carey, 2010). A growing number of computer software therapy programs have users interact with on-screen virtual human figures who ask questions such as “What kinds of things do you dislike about yourself?”, who nod sympathetically when users offer self-criticisms, and who reinforce certain user statements with smiles or encouraging words.

In another use of avatars, some real-life therapists guide their clients to enter virtual environments on their computers, acquire virtual bodies, and interact with animated figures who resemble their parents, bosses, or friends—in situations that can feel very real. Theoretically, experiences in virtual worlds of this kind can help clients change their reactions in the real world (Reamer, 2013).

In one highly publicized case, for example, a woman with agoraphobia—a fear of leaving the house—was guided by her therapist to adopt an avatar and enter into a virtual world of other avatars, a journey that eventually enabled her to venture outside into the real world (Smith, 2008). Similarly, therapists have used avatar therapy to help individuals who suffer from social anxiety, trauma aftereffects, substance abuse, and even hallucinations—often with considerable success (Kedmey, 2013; Leff et al., 2013; Carey, 2010).
Group Therapy Thousands of therapists specialize in **group therapy**, a format in which a therapist meets with a group of clients who have similar problems. One survey of clinical psychologists showed that almost one-third of them devoted some portion of their practice to group therapy (Norcross & Goldfried, 2005). Typically, members of a therapy group meet together with a therapist and discuss the problems of one or more of the people in the group. Together they develop important insights, build social skills, strengthen feelings of self-worth, and share useful information or advice (Corey, Corey, & Corey, 2013; Burlingame & Baldwin, 2011). Many groups are created with particular client populations in mind; for example, there are groups for people with alcoholism, for those who are physically handicapped, and for people who are divorced, abused, or bereaved.

Research suggests that group therapy is of help to many clients, often as helpful as individual therapy (Burlingame & Baldwin, 2011). The group format also has been used for purposes that are educational rather than therapeutic, such as “consciousness raising” and spiritual inspiration.

A format similar to group therapy is the **self-help group** (or **mutual help group**). Here people who have similar problems (for example, bereavement, substance abuse, illness, unemployment, or divorce) come together to help and support one another without the direct leadership of a professional clinician (Lake, 2014; White & Madara, 2010; Mueller et al., 2007). According to estimates, there are now between 500,000 and 3 million such groups in the United States alone, attended each year by as many as 3 to 4 percent of the population. In addition, numerous self-help chat groups have emerged on the Internet in recent years.

**Family Therapy** Family therapy was first introduced in the 1950s. A therapist meets with all members of a family, points out problem behaviors and interactions, and helps the whole family to change its ways (Goldenberg et al., 2014).
Here, the entire family is viewed as the unit under treatment, even if only one of the members receives a clinical diagnosis. The following is a typical interaction between family members and a therapist:

Tommy sat motionless in a chair gazing out the window. He was fourteen and a bit small for his age. . . . Sissy was eleven. She was sitting on the couch between her Mom and Dad with a smile on her face. Across from them sat Ms. Fargo, the family therapist.

Ms. Fargo spoke. “Could you be a little more specific about the changes you have seen in Tommy and when they came about?”

Mrs. Davis answered first. “Well, I guess it was about two years ago. Tommy started getting in fights at school. When we talked to him at home he said it was none of our business. He became moody and disobedient. He wouldn’t do anything that we wanted him to. He began to act mean to his sister and even hit her.”

“What about the fights at school?” Ms. Fargo asked. This time it was Mr. Davis who spoke first. “Ginny was more worried about them than I was. I used to fight a lot when I was in school and I think it is normal. . . . But I was very respectful to my parents, especially my Dad. If I ever got out of line he would smack me one.”

“Have you ever had to hit Tommy?” Ms. Fargo inquired softly. “Sure, a couple of times, but it didn’t seem to do any good.”

All at once Tommy seemed to be paying attention, his eyes riveted on his father. “Yeah, he hit me a lot, for no reason at all!”

“Now, that’s not true, Thomas.” Mrs. Davis has a scolding expression on her face. “If you behaved yourself a little better you wouldn’t get hit. Ms. Fargo, I can’t say that I am in favor of the hitting, but I understand sometimes how frustrating it may be for Bob.”

“You don’t know how frustrating it is for me, honey.” Bob seemed upset. “You don’t have to work all day at the office and then come home to contend with all of this. Sometimes I feel like I don’t even want to come home.”

Ginny gave him a hard stare. “You think things at home are easy all day? I could use some support from you. You think all you have to do is earn the money and I will do everything else. Well, I am not about to do that anymore.” . . . [She] began to cry. “I just don’t know what to do anymore. Things just seem so hopeless. Why can’t people be nice in this family anymore? I don’t think I am asking too much, am I?”

Ms. Fargo . . . looked at each person briefly and was sure to make eye contact. “There seems to be a lot going on . . . I think we are going to need to understand a lot of things to see why this is happening.”

Family therapists may follow any of the major theoretical models, but many of them adopt the principles of family systems theory (Riina & McHale, 2014; Chabot, 2011). Although all kinds of mental health professionals practice family systems therapy, this approach is particularly common among social workers. Around 2 percent of all clinical psychologists, 5 percent of counseling psychologists, and 14 percent of social workers identify themselves mainly as family systems therapists (Prochaska & Norcross, 2013).

As you read earlier, family systems theory holds that each family has its own rules, structure, and communication patterns that shape the individual members’ behavior. In one family systems approach, structural family therapy, therapists try to change the family power structure, the roles each person plays, and the relationships...

Family therapies of various kinds are often helpful to individuals, although research has not yet clarified how helpful (Goldenberg et al., 2014; Nichols, 2013; Kaslow, 2011). Some studies have found that as many as 65 percent of individuals treated with family approaches improve, while other studies suggest much lower success rates. Nor has any one type of family therapy emerged as consistently more helpful than the others (Bitter, 2013; Alexander et al., 2002).

**Couple Therapy** In couple therapy, or marital therapy, the therapist works with two individuals who are in a long-term relationship. Often they are husband and wife, but the couple need not be married or even living together. Like family therapy, couple therapy often focuses on the structure and communication patterns in the relationship (Baucom & Boeding, 2013; Baucom et al., 2012, 2010, 2009; Gurman & Snyder, 2011). A couple approach may also be used when a child’s psychological problems are traced to problems in the parents’ relationship.

Although some degree of conflict exists in any long-term relationship, many couples in our society have serious marital discord. The divorce rate in Canada, the United States, and Europe is now close to 50 percent of the marriage rate. Many couples who live together without marrying apparently have similar levels of difficulty (Martins et al., 2014; Harway, 2005).

Couple therapy, like family and group therapy, may follow the principles of any of the major therapy orientations. Cognitive-behavioral couple therapy, for example, uses many
techniques from the cognitive and behavioral perspectives (Baucom & Boeding, 2013; Becvar & Becvar, 2012). Therapists help spouses recognize and change problem behaviors largely by teaching specific problem-solving and communication skills. A broader, more sociocultural version, called integrative couple therapy, further helps partners accept behaviors that they cannot change and embrace the whole relationship nevertheless (Christensen et al., 2014, 2010, 2006). Partners are asked to see such behaviors as an understandable result of basic differences between them.

Couples treated by couple therapy seem to show greater improvement in their relationships than couples with similar problems who do not receive treatment, but no one form of couple therapy stands out as superior to others (Christensen et al., 2014, 2010; Gurman & Snyder, 2011). Although marital functioning improved in two-thirds of treated couples by the end of therapy, fewer than half of those who are treated achieve “distress free” or “happy” relationships. One-fourth of all treated couples eventually separate or divorce.

Community Treatment  

Community mental health treatment programs allow clients, particularly those with severe psychological difficulties, to receive treatment in familiar social surroundings as they try to recover. In 1963 President John F. Kennedy called for such a “bold new approach” to the treatment of mental disorders—a community approach that would enable most people with psychological problems to receive services from nearby agencies rather than distant facilities or institutions. Congress passed the Community Mental Health Act soon after, launching the community mental health movement across the United States. Community-based treatments, including community day programs and residential services, continue to be a major part of today’s efforts to help people with severe mental disorders (Cuddeback et al., 2013; Daly, 2010). A number of other countries have launched similar community movements over the past several decades.

As you read in Chapter 1, a key principle of community treatment is prevention. This involves clinicians actively reaching out to clients rather than waiting for them to seek treatment. Research suggests that such efforts are often very successful (Beardslee et al, 2013; Drukker et al., 2013) Community workers recognize three types of prevention, which they call primary, secondary, and tertiary. Primary prevention consists of efforts to improve community attitudes and policies. Its goal is to prevent psychological disorders altogether. Community workers may, for example, consult with a local school board, offer public workshops on stress reduction, or construct Web sites on how to cope effectively.

Secondary prevention consists of identifying and treating psychological disorders in the early stages, before they become serious. Community workers may work with teachers, ministers, or police to help them recognize the early signs of psychological dysfunction and teach them how to help people find treatment. Similarly, hundreds of mental health Web sites provide this same kind of information to family members, teachers, and the like.

The goal of tertiary prevention is to provide effective treatment as soon as it is needed so that moderate or severe disorders do not become long-term problems. Community agencies across the United States successfully offer tertiary care for millions of people with moderate psychological problems but, as you read in Chapter 1, they often fail to provide the services needed by hundreds of thousands with severe disturbances (Althouse, 2010). One of the reasons for this failure is lack of funding, an issue that you will read about in later chapters.
How Do Multicultural Theorists Explain Abnormal Functioning?

*Culture* refers to the set of values, attitudes, beliefs, history, and behaviors shared by a group of people and communicated from one generation to the next (Matsumoto & Hwang, 2012, 2011; Matsumoto, 2007, 2001). We are, without question, a society of multiple cultures. Indeed, by the year 2050, members of racial and ethnic minority groups in the United States will collectively outnumber white Americans (Kaiser Family Foundation, 2010; U.S. Census Bureau, 2010).

Partly in response to this growing diversity, the **multicultural**, or **culturally diverse**, perspective has emerged (Leong, 2014, 2013). Multicultural psychologists seek to understand how culture, race, ethnicity, gender, and similar factors affect behavior and thought and how people of different cultures, races, and genders differ psychologically (Alegria et al., 2014, 2012, 2007, 2004). Today’s multicultural view is different from past—less enlightened—cultural perspectives: it does not imply that members of racial, ethnic, and other minority groups are in some way inferior or culturally deprived in comparison with a majority population. Rather, the model holds that an individual’s behavior, whether normal or abnormal, is best understood when examined in the light of that individual’s unique cultural context, from the values of that culture to the special external pressures faced by members of the culture.

The groups in the United States that have received the most attention from multicultural researchers are ethnic and racial minority groups (African American, Hispanic American, American Indian, and Asian American groups) and groups such as economically disadvantaged persons, gays and lesbians, and women (although women are not technically a minority group). Each of these groups is subjected to special pressures in American society that may contribute to feelings of stress and, in some cases, to abnormal functioning. Researchers have learned, for example, that psychological abnormality, especially severe psychological abnormality, is indeed more common among poorer people than among wealthier people (Wittayanukorn, 2013; Sareen et al., 2011) (see Figure 3-5). Perhaps the pressures of poverty explain this relationship.

Of course, membership in these various groups overlaps. Many members of minority groups, for example, also live in poverty. The higher rates of crime, unemployment, overcrowding, and homelessness; the inferior medical care; and the limited educational opportunities typically available to poor people may place great stress on many members of such minority groups (Alegria et al., 2014; Miller et al., 2011).

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**BETWEEN THE LINES**

**Who Is Discriminated Against?**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>35%</td>
<td>Percentage of African Americans who report being treated unfairly because of their race in the past year</td>
</tr>
<tr>
<td>20%</td>
<td>Percentage of Hispanic Americans who report being treated unfairly because of their race in the past year</td>
</tr>
<tr>
<td>10%</td>
<td>Percentage of white Americans who report being treated unfairly because of their race in the past year</td>
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(Information from: Pew Research Center, 2013)

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**Poverty and mental health** Recent surveys in the United States find that people with low annual incomes (below $20,000) have a greater risk of experiencing mental disorders than do those with higher incomes (above $70,000). For example, 10 percent of low-income people have persistent symptoms of anxiety, compared with 6 percent of higher-income people (Information from: Sareen et al., 2011).
Multicultural researchers have also noted that the prejudice and discrimination faced by many minority groups may contribute to various forms of abnormal functioning (McDonald et al., 2014; Guimón, 2010; Carter, 2007). Women in Western society receive diagnoses of anxiety disorders and of depression at least twice as often as men (Jeglic & Murphy-Eberenz, 2012). Similarly, African Americans, Hispanic Americans, and American Indians are more likely than white Americans to experience serious psychological distress or extreme sadness (see Table 3-3). American Indians also have exceptionally high alcoholism and suicide rates (CDCP, 2011; Beals et al., 2005). Although many factors may combine to produce these differences, prejudice based on race and sexual orientation, and the problems such prejudice poses, may contribute to abnormal patterns of tension, unhappiness, low self-esteem, and escape (Guimón, 2010).

### Multicultural Treatments

Studies conducted throughout the world have found that members of ethnic and racial minority groups tend to show less improvement in clinical treatment, make less use of mental health services, and stop therapy sooner than members of majority groups (Cook et al., 2014; Comas-Diaz, 2012, 2011; Ward, 2007).

A number of studies suggest that two features of treatment can increase a therapist’s effectiveness with minority clients: (1) greater sensitivity to cultural issues and (2) inclusion of cultural morals and models in treatment, especially in therapies for children and adolescents (Comas-Diaz, 2014; Inman & DeBoer, 2013; Castro, Holm-Denoma, & Buckner, 2007). Given such findings, some clinicians have developed **culture-sensitive therapies**, approaches that are designed to help address the unique issues faced by members of cultural minority groups. Therapies geared to the pressures of being female, called **gender-sensitive**, or **feminist, therapies**, follow similar principles (Calogero, Tantleff-Dunn, & Thompson, 2011).

<table>
<thead>
<tr>
<th>Percentage of Ethnic/Minority Populations Experiencing Psychological Difficulties</th>
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<tr>
<td><strong>”Serious Psychological Distress”</strong></td>
</tr>
<tr>
<td>White American population</td>
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<tr>
<td>African American population</td>
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<tr>
<td>Hispanic American population</td>
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<td>American Indian population</td>
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Culture-sensitive approaches typically include the following elements (Prochaska & Norcross, 2013; Wyatt & Parham, 2007):

1. Special cultural instruction for therapists in their graduate training program
2. The therapist’s awareness of a client’s cultural values
3. The therapist’s awareness of the stress, prejudices, and stereotypes to which minority clients are exposed
4. The therapist’s awareness of the hardships faced by the children of immigrants
5. Helping clients recognize the impact of both their own culture and the dominant culture on their self-views and behaviors
6. Helping clients identify and express suppressed anger and pain
7. Helping clients achieve a bicultural balance that feels right for them
8. Helping clients raise their self-esteem—a sense of self-worth that has often been damaged by generations of negative messages

Assessing the Sociocultural Model

The family-social and multicultural perspectives have added greatly to the understanding and treatment of abnormal functioning. Today most clinicians take family, cultural, social, and societal issues into account, factors that were overlooked just 35 years ago. In addition, clinicians have become more aware of the impact of clinical and social roles. Finally, the treatment formats offered by the sociocultural model sometimes succeed where traditional approaches have failed.

At the same time, the sociocultural model has certain problems. To begin with, sociocultural research findings are often difficult to interpret. Indeed, research may reveal a relationship between certain family or cultural factors and a particular

Community mental health: Argentine style

Staff members and patients from Borda Neuropsychiatric Hospital in Buenos Aires set up a laptop and begin broadcasting on the popular radio station Radio La Colifata (colifá is slang for “crazy one”). The station was started more than 20 years ago to help patients pursue therapeutic activities and reach out to the community.

Gender Bias in the Workplace

Women today earn $0.79 for every $1 earned by a man.

Around 60 percent of young adult women believe that women have to outperform men at work to get the same rewards; 48 percent of young adult men agree.

disorder yet fail to establish that they are its cause. Studies show a link between family conflict and schizophrenia, for example, but that finding does not necessarily mean that family dysfunction causes schizophrenia. It is equally possible that family functioning is disrupted by the tension and conflict created by the psychotic behavior of a family member.

Another limitation of the sociocultural model is its inability to predict abnormality in specific individuals. If, for example, social conditions such as prejudice and discrimination are key causes of anxiety and depression, why do only some of the people subjected to such forces experience psychological disorders? Are still other factors necessary for the development of the disorders?

Given these limitations, most clinicians view the family-social and multicultural explanations as operating in conjunction with the biological or psychological explanations. They agree that family, social, and cultural factors may create a climate favorable to the development of certain disorders. They believe, however, that biological or psychological conditions—or both—must also be present for the disorders to evolve.

**PUTTING IT... together**

Integration of the Models

Today’s leading models vary widely (see Table 3-4), and none of the models has proved consistently superior. Each helps us appreciate a key aspect of human functioning, and each has important strengths as well as serious limitations.

With all their differences, the conclusions and techniques of the various models are often compatible. Certainly our understanding and treatment of abnormal behavior are more complete if we appreciate the biological, psychological, and sociocultural aspects of a person’s problem rather than only one of them. Not
surprisingly, a growing number of clinicians favor explanations of abnormal behavior that consider more than one kind of cause at a time. These explanations, sometimes called biopsychosocial theories, state that abnormality results from the interaction of genetic, biological, developmental, emotional, behavioral, cognitive, social, cultural, and societal influences (Calkins & Dollar, 2014; Pincus, 2012). A case of depression, for example, might best be explained by pointing collectively to an individual’s inheritance of unfavorable genes, traumatic losses during childhood, negative ways of thinking, and social isolation.

Some biopsychosocial theorists favor a diathesis-stress explanation of how the various factors work together to cause abnormal functioning (“diathesis” means a predisposed tendency). According to this theory, people must first have a biological, psychological, or sociocultural predisposition to develop a disorder and must then be subjected to episodes of severe stress. In a case of depression, for example, we might find that unfavorable genes and related biochemical abnormalities predispose the individual to develop the disorder, while the loss of a loved one actually triggers its onset. In a similar quest for integration, many therapists are now combining treatment techniques from several models (Norcross & Beutler, 2014). In fact, 22 percent of today’s clinical psychologists, 34 percent of counseling psychologists, and 26 percent of social workers describe their approach as “eclectic” or “integrative” (Prochaska & Norcross, 2013). Studies confirm that clinical problems often respond better to combined approaches than to any one therapy alone. For example, as you will see, drug therapy combined with cognitive therapy is sometimes the most effective treatment for depression.

Given the recent rise in biopsychosocial theories and combination treatments, our examinations of abnormal behavior throughout this book will take two directions. As different disorders are presented, we will look at how today’s models explain each disorder, how clinicians who endorse each model treat people with the disorder, and how well these explanations and treatments are supported by research. Just as important, however, we will also be observing how the explanations and treatments may build upon and strengthen one another, and we will examine current efforts toward integration of the models.

**SUMMING UP**

- **MODELS OF PSYCHOLOGICAL ABNORMALITY** Scientists and clinicians use models, or paradigms, to understand and treat abnormal behavior. The principles and techniques of treatment used by clinical practitioners correspond to their preferred models. pp. 55–57

- **THE BIOLOGICAL MODEL** Biological theorists look at the biological processes of human functioning to explain abnormal behavior, pointing to anatomical or biochemical problems in the brain and body. Such abnormalities are sometimes the result of genetic inheritance of abnormalities, normal evolution, or viral infections. Biological therapists use physical and chemical methods to help people overcome their psychological problems. The leading methods are drug therapy, electroconvulsive therapy, and, on rare occasions, psychosurgery. pp. 57–62

▶ biopsychosocial theories Explanations that attribute the cause of abnormality to an interaction of genetic, biological, developmental, emotional, behavioral, cognitive, social, and societal influences.
THE PSYCHODYNAMIC MODEL Psychodynamic theorists believe that an individual's behavior, whether normal or abnormal, is determined by underlying psychological forces. They consider psychological conflicts to be rooted in early parent-child relationships and traumatic experiences. The psychodynamic model was formulated by Sigmund Freud, who said that three dynamic forces—the id, ego, and superego—interact to produce thought, feeling, and behavior. Freud also proposed that individuals who do not make appropriate adjustments in the id, ego, and superego during their early years may become fixated at an early stage of development. Other psychodynamic theories are ego theory, self theory, and object relations theory. Psychodynamic therapists help people uncover past traumas and the inner conflicts that have resulted from them. They use a number of techniques, including free association and interpretations of psychological phenomena such as resistance, transference, and dreams. The leading contemporary psychodynamic approaches include short-term psychodynamic therapies and relational psychoanalytic therapy. pp. 62–69

THE BEHAVIORAL MODEL Behaviorists concentrate on behaviors and propose that they develop in accordance with the principles of learning. These theorists hold that three types of conditioning—classical conditioning, operant conditioning, and modeling—account for all behavior, whether normal or dysfunctional. The goal of the behavioral therapies is to identify the client's problematic behaviors and replace them with more appropriate ones, using techniques based on one or more of the principles of learning. The classical conditioning approach of systematic desensitization, for example, has been effective in treating phobias. pp. 69–72

THE COGNITIVE MODEL According to the cognitive model, we must understand human thought to understand human behavior. When people display abnormal patterns of functioning, cognitive theorists point to cognitive problems, such as maladaptive assumptions and illogical thinking processes. Cognitive therapists try to help people recognize and change their faulty ideas and thinking processes. Among the most widely used cognitive treatments is Beck's cognitive therapy. pp. 72–75

THE HUMANISTIC-EXISTENTIAL MODEL The humanistic-existential model focuses on the human need to confront philosophical issues such as self-awareness, values, meaning, and choice successfully to be satisfied in life. Humanists believe that people are driven to self-actualize. When this drive is interfered with, abnormal behavior may result. One group of humanistic therapists, client-centered therapists, tries to create a very supportive therapy climate in which people can look at themselves honestly and acceptingly, thus opening the door to self-actualization. Another group, gestalt therapists, uses more active techniques to help people recognize and accept their needs. Recently the role of religion as an important factor in mental health and in psychotherapy has caught the attention of researchers and clinicians. According to existentialists, abnormal behavior results from hiding from life’s responsibilities. Existential therapists encourage people to accept responsibility for their lives, to recognize their freedom to choose a different course, and to choose to live with greater meaning. pp. 76–82

THE SOCIOCULTURAL MODEL The family-social perspective looks outward to three kinds of factors. Some proponents of this perspective focus on social labels and roles; they hold that society calls certain people “mentally ill” and that those individuals in turn follow the role implied by such a label. Others focus on social connections and supports, believing that isolation,
poor social supports, and similar factors may contribute to psychological difficulties. Still others emphasize the family system, believing that a family’s structure or communication patterns may force members to behave in abnormal ways. Practitioners from the family-social model may practice group, family, or couple therapy, or community treatment.

The multicultural perspective holds that an individual’s behavior, whether normal or abnormal, is best understood when examined in the light of his or her unique cultural context, including the values of that culture and the special external pressures faced by members of that culture. Practitioners of this model may practice culture-sensitive therapies, approaches that seek to address the unique issues faced by members of cultural minority groups. pp. 82–92
Franco started seeing a therapist at the urging of his friend Jesse. It had been almost four months since Franco broke up with his girlfriend, and he still seemed unable to pull himself together. He had totally stopped playing sports and attending concerts, things he normally did on a regular basis. When he finally returned Jesse’s calls, he mentioned several serious and avoidable mistakes that he had made at work recently, but he barely seemed to care. He also confided to his friend that he felt very tired and was unable to touch his food. Jesse suspected that Franco was clinically depressed, but, then again, he was not a therapist.

Feelings of despondency led Franco to make an appointment with a therapist at a local counseling center. His clinician’s first step was to learn as much as possible about Franco and his disturbance. Who is he, what is his life like, and what are his symptoms? The answers might help to reveal the causes and probable course of his present dysfunction and suggest what kinds of strategies would be most likely to help him. Treatment could then be tailored to Franco’s needs and particular pattern of abnormal functioning.

In Chapters 2 and 3 you read about how researchers in abnormal psychology build a general understanding of abnormal functioning. Clinical practitioners apply this broad information in their work, but their main focus when faced with new clients is to gather idiographic, or individual, information about them (Demorest, 2013; Kral et al., 2011). To help a client overcome problems, clinicians must fully understand the client and his or her particular difficulties. To gather such individual information, clinicians use the procedures of assessment and diagnosis. Then they are in a position to offer treatment.

Clinical Assessment: How and Why Does the Client Behave Abnormally?

Assessment is simply the collecting of relevant information in an effort to reach a conclusion. It goes on in every realm of life. We make assessments when we decide what cereal to buy or which presidential candidate to vote for. College admissions officers, who have to select the “best” of the students applying to their college, depend on academic records, recommendations, achievement test scores, interviews, and application forms to help them decide. Employers, who have to predict which applicants are most likely to be effective workers, collect information from résumés, interviews, references, and perhaps on-the-job observations.

Clinical assessment is used to determine whether, how, and why a person is behaving abnormally and how that person may be helped. It also enables clinicians to evaluate people’s progress after they have been in treatment for a while and decide whether the treatment should be changed. The specific tools that are used to do an assessment depend on the clinician’s theoretical
Psychodynamic clinicians, for example, use methods that assess a client’s personality and probe for unconscious conflicts he or she may be experiencing. This kind of assessment, called a personality assessment, enables them to piece together a clinical picture in accordance with the principles of their model (De Saeger et al., 2014; Tackett et al., 2013). Behavioral and cognitive clinicians are more likely to use assessment methods that reveal specific dysfunctional behaviors and cognitions. The goal of this kind of assessment, called a behavioral assessment, is to produce a functional analysis of the person’s behaviors—an analysis of how the behaviors are learned and reinforced (Siu & Zhou, 2014; O’Brien & Carhart, 2011).

The hundreds of clinical assessment techniques and tools that have been developed fall into three categories: clinical interviews, tests, and observations. To be useful, these tools must be standardized and must have clear reliability and validity.

Characteristics of Assessment Tools

All clinicians must follow the same procedures when they use a particular type of assessment tool. To standardize such a tool is to set up common steps to be followed whenever it is administered. Similarly, clinicians must standardize the way they interpret the results of an assessment tool in order to be able to understand what a particular score means. They may standardize the scores of a test, for example, by first administering it to a group of research participants whose performance will then serve as a common standard, or norm, against which later individual scores can be measured. The group that initially takes the test must be typical of the larger population for whom the test is intended. If an aggressiveness test meant for the public at large were standardized on a group of Marines, for example, the resulting “norm” might turn out to be misleadingly high (Hogan, 2014).

Reliability refers to the consistency of assessment measures. A good assessment tool will always yield similar results in the same situation (Dehn, 2013; Wang et al., 2012). An assessment tool has high test-retest reliability, one kind of reliability, if it yields similar results every time it is given to the same people. If a woman’s responses on a particular test indicate that she is generally a heavy drinker, the test should produce a similar result when she takes it again a week later. To measure test–retest reliability, participants are tested on two occasions and the two scores are correlated (Holden & Bernstein, 2013). The higher the correlation (see Chapter 2), the greater the test’s reliability.

An assessment tool shows high interrater (or interjudge) reliability, another kind of reliability, if different judges independently agree on how to score and interpret it. True–false and multiple-choice tests yield consistent scores no matter who evaluates them, but other tests require that the evaluator make a judgment. Consider a test that requires the person to draw a copy of a picture, which a judge then rates for accuracy. Different judges may give different ratings to the same drawing.

Finally, an assessment tool must have validity: it must accurately measure what it is supposed to measure (Dehn, 2013; Wang et al., 2012). Suppose a weight scale reads 12 pounds every time a 10-pound bag of sugar is placed on it. Although the scale is reliable because its readings are consistent, those readings are not valid, or accurate.

A given assessment tool may appear to be valid simply because it makes sense and seems reasonable. However, this sort of validity, called face validity, does not by itself mean that the instrument is trustworthy. A test for depression, for example, might include questions about how often a person

Reliable assessments
Former National Basketball Association stars Clyde Drexler, James Worthy, Brent Barry, Dominique Wilkins, and Julius Erving served as judges at the 2011 All-Star slam dunk contest. Holding up their scores after each dunk, they displayed high interrater reliability and showed they still know a great dunk when they see one.
cries. Because it makes sense that depressed people would cry, these test questions have face validity. It turns out, however, that many people cry a great deal for reasons other than depression, and some extremely depressed people do not cry at all. Thus an assessment tool should not be used unless it has high predictive validity or concurrent validity (Dehn, 2013; Osman et al., 2011).

Predictive validity is a tool’s ability to predict future characteristics or behavior. Let’s say that a test has been developed to identify elementary schoolchildren who are likely to take up cigarette smoking in high school. The test gathers information about the children’s parents—their personal characteristics, smoking habits, and attitudes toward smoking—and on that basis identifies high-risk children. To establish the test’s predictive validity, investigators could administer it to a group of elementary school students, wait until they were in high school, and then check to see which children actually did become smokers.

Concurrent validity is the degree to which the measures gathered from one tool agree with the measures gathered from other assessment techniques. Participants’ scores on a new test designed to measure anxiety, for example, should correlate highly with their scores on other anxiety tests or with their behavior during clinical interviews.

Before any assessment technique can be fully useful, it must meet the requirements of standardization, reliability, and validity. No matter how insightful or clever a technique may be, clinicians cannot profitably use its results if they are uninterpretable, inconsistent, or inaccurate. Unfortunately, more than a few clinical assessment tools fall short, suggesting that at least some clinical assessments, too, miss their mark.

Clinical Interviews

Most of us feel instinctively that the best way to get to know people is to meet with them face to face. Under these circumstances, we can see them react to what we do and say, observe as well as listen as they answer, and generally get a sense of who they are. A clinical interview is just such a face-to-face encounter (Goldfinger & Pomerantz, 2014; Sommers-Flanagan & Sommers-Flanagan, 2013). If during a

Military concerns

U.S. Army troops await their turn for psychological assessment at the Soldier Readiness Processing Center at Fort Hood, Texas. Many soldiers have developed significant psychological problems in recent years as a result of their repeated deployments to Iraq and Afghanistan, leading the Army to conduct assessments that might predict which individuals are particularly vulnerable to such reactions.
A clinical interview a man looks as happy as can be while describing his sadness over the recent death of his mother, the clinician may suspect that the man actually has conflicting emotions about this loss.

**Conducting the Interview** The interview is often the first contact between client and clinician. Clinicians use it to collect detailed information about the person’s problems and feelings, lifestyle and relationships, and other personal history. They may also ask about the person’s expectations of therapy and motives for seeking it. The clinician who worked with Franco began with a face-to-face interview:

Franco arrived for his appointment in gray sweatpants and a T-shirt. His stubble suggested that he had not shaved, and the many food stains on his shirt indicated he had not washed it for quite some time. Franco spoke without emotion. He slouched into the chair, sending signals that he did not want to be there.

When pressed, he talked about his two-year relationship with Maria, who, at 25, was 13 years younger than he was. Franco had believed that he had met his future wife, but Maria’s domineering mother was unhappy about the age difference and kept telling her daughter that she could find someone better. Franco wanted Maria to stand up to her mother and to move in with him, but this was not easy for her to do. Believing that Maria’s mother had too much influence over her and frustrated that she would not commit to him, he had broken up with Maria during a fight. He soon realized that he had acted impulsively, but Maria refused to take him back.

When asked about his childhood, Franco described his father’s death in a gruesome car crash on his way to pick up 12-year-old Franco from soccer practice. Initially, his father had told Franco that he could not come get him from practice, but Franco “threw a tantrum” and his father agreed to rearrange his schedule. Franco believed himself responsible for his father’s death.

Franco stated that, over the years, his mother had encouraged this feeling of self-blame by complaining that she had been forced to “give up her life” to raise Franco alone. She was always nasty to Franco and nasty to every woman he later dated. She even predicted that Franco would “die alone.”

Franco described being very unhappy throughout his school years. He hated school and felt less smart than the other kids. On occasion, a teacher’s critique—meant as encouragement—left him unable to do his homework for days, and his grades suffered. He truly believed he was stupid. Similarly, later in life, he interpreted his rise to a position as bank manager as due entirely to hard work. “I know I’m not as smart as the others there.”

Franco explained that since the breakup with Maria, he had experienced more unhappiness than ever before. He often spent all night watching television. At the same time, he could barely pay attention to what was happening on the screen. He said that some days he actually forgot to eat. He had no wish to see his friends. At work, the days blurred into one another, distinguished only by a growing number of reprimands from his bank supervisors. He attributed these work problems to his basic lack of ability. His supervisors had simply figured out that he had not been good enough for the job all along.

Beyond gathering basic background data of this kind, clinical interviewers give special attention to those topics they consider most important (Sommers-Flanagan & Sommers-Flanagan, 2013; Segal, June, & Marty, 2010). Psychodynamic interviewers try to learn about the person’s needs and memories of past events and relationships. Behavioral interviewers try to pinpoint information about the stimuli that trigger responses and their consequences. Cognitive interviewers try to discover assumptions and interpretations that influence the person. Humanistic

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**Famous Movie Clinicians**

<table>
<thead>
<tr>
<th>Dr. Banks (Side Effects, 2013)</th>
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<tbody>
<tr>
<td>Dr. Patel (The Silver Linings Playbook, 2012)</td>
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<tr>
<td>Dr. Logue (The King’s Speech, 2010)</td>
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<tr>
<td>Dr. Cawley (Shutter Island, 2010)</td>
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<td>Dr. Steele (Changeling, 2008)</td>
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<td>Dr. Rosen (A Beautiful Mind, 2001)</td>
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<td>Dr. Crowe (The Sixth Sense, 1999)</td>
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<tr>
<td>Dr. Maguire (Good Will Hunting, 1997)</td>
</tr>
<tr>
<td>Dr. Lecter (The Silence of the Lambs, 1991; Hannibal, 2001; and Red Dragon, 2002)</td>
</tr>
<tr>
<td>Dr. Marvin (What About Bob?, 1991)</td>
</tr>
<tr>
<td>Dr. Sayer (Awakenings, 1990)</td>
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<tr>
<td>Dr. Sobel (Analyze This, 1999; and Analyze That, 2002)</td>
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<td>Dr. Berger (Ordinary People, 1980)</td>
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<td>Dr. Dysart (Equus, 1977)</td>
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<tr>
<td>Nurse Ratched (One Flew Over the Cuckoo’s Nest, 1975)</td>
</tr>
<tr>
<td>Drs. Petersen and Murchison (Spellbound, 1945)</td>
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</table>
clinicians ask about the person’s self-evaluation, self-concept, and values. Biological clinicians look for signs of biochemical or brain dysfunction. And sociocultural interviewers ask about the family, social, and cultural environments.

Interviews can be either unstructured or structured (Madill, 2012). In an unstructured interview, the clinician asks mostly open-ended questions, perhaps as simple as “Would you tell me about yourself?” The lack of structure allows the interviewer to follow leads and explore relevant topics that could not be anticipated before the interview.

In a structured interview, clinicians ask prepared—mostly specific—questions. Sometimes they use a published interview schedule—a standard set of questions designed for all interviews. Many structured interviews include a mental status exam, a set of questions and observations that systematically evaluate the client’s awareness, orientation with regard to time and place, attention span, memory, judgment and insight, thought content and processes, mood, and appearance (Sommers-Flanagan & Sommers-Flanagan, 2013). A structured format ensures that clinicians will cover the same kinds of important issues in all of their interviews and enables them to compare the responses of different individuals.

Although most clinical interviews have both unstructured and structured portions, many clinicians favor one kind over the other. Unstructured interviews typically appeal to psychodynamic and humanistic clinicians, while structured formats are widely used by behavioral and cognitive clinicians, who need to pinpoint behaviors, attitudes, or thinking processes that may underlie abnormal behavior (Segal & Hersen, 2010).

What Are the Limitations of Clinical Interviews? Although interviews often produce valuable information about people, there are limits to what they can accomplish. One problem is that they sometimes lack validity, or accuracy (Sommers-Flanagan & Sommers-Flanagan, 2013; Chang & Krosnick, 2010). Individuals may intentionally mislead in order to present themselves in a positive light or to avoid discussing embarrassing topics (Gold & Castillo, 2010). Or people may be unable to give an accurate report in their interviews. Individuals who suffer from depression, for example, take a pessimistic view of themselves and may describe themselves as poor workers or inadequate parents when that isn’t the case at all (Feliciano & Gum, 2010).

Interviewers too may make mistakes in judgments that slant the information they gather (Clinton, Fernandez, & Alicea, 2010). They usually rely too heavily on first impressions, for example, and give too much weight to unfavorable information about a client (Wu & Shi, 2005). Interviewer biases, including gender, race, and age biases, may also influence the interviewers’ interpretations of what a client says (Ungar et al., 2006).

Interviews, particularly unstructured ones, may also lack reliability (Sommers-Flanagan & Sommers-Flanagan, 2013; Davis et al., 2010). People respond differently to different interviewers, providing, for example, less information to a cold interviewer than to a warm and supportive one (Quas et al., 2007). Similarly, a clinician’s race, gender, age, and appearance may influence a client’s responses (Davis et al., 2010; Springman, Wherry, & Notaro, 2006).

Because different clinicians can obtain different answers and draw different conclusions even when they ask the same questions of the same person, some researchers believe that interviewing should be discarded as a tool of clinical assessment. As you’ll see, however, the two other kinds of clinical assessment methods also have serious limitations.
Clinical Tests

Clinical tests are devices for gathering information about a few aspects of a person’s psychological functioning, from which broader information about the person can be inferred. On the surface, it may look easy to design an effective test. Every month, magazines and websites present new tests that supposedly tell us about our personalities, relationships, sex lives, reactions to stress, or ability to succeed. Such tests might sound convincing, but most of them lack reliability, validity, and standardization. That is, they do not yield consistent, accurate information or say where we stand in comparison with others.

More than 500 clinical tests are currently in use throughout the United States. Clinicians use six kinds most often: projective tests, personality inventories, response inventories, psychophysiological tests, neurological and neuropsychological tests, and intelligence tests.

Projective Tests Projective tests require that clients interpret vague stimuli, such as inkblots or ambiguous pictures, or follow open-ended instructions such as “Draw a person.” Theoretically, when clues and instructions are so general, people will “project” aspects of their personality into the task (Hogan, 2014). Projective tests are used primarily by psychodynamic clinicians to help assess the unconscious drives and conflicts they believe to be at the root of abnormal functioning (McGrath & Carroll, 2012; Baer & Blais, 2010). The most widely used projective tests are the Rorschach test, the Thematic Apperception Test, sentence-completion tests, and drawings.

RORSCHACH TEST In 1911 Hermann Rorschach, a Swiss psychiatrist, experimented with the use of inkblots in his clinical work. He made thousands of blots by dropping ink on paper and then folding the paper in half to create a symmetrical but wholly accidental design, such as the one shown in Figure 4-1. Rorschach found that everyone saw images in these blots. In addition, the images a viewer saw seemed to correspond in important ways with his or her psychological condition. People diagnosed with schizophrenia, for example, tended to see images that differed from those described by people experiencing depression.

Rorschach selected 10 inkblots and published them in 1921 with instructions for their use in assessment (see MindTech on the next page). This set was called the Rorschach Psychodynamic Inkblot Test. Rorschach died just 8 months later, at the age of 37, but his work was continued by others, and his inkblots took their place among the most widely used projective tests of the twentieth century.

Clinicians administer the “Rorschach,” as it is commonly called, by presenting one inkblot card at a time and asking respondents what they see, what the inkblot seems to be, or what it reminds them of. In the early years, Rorschach testers paid special attention to the themes and images that the inkblots brought to mind (Butcher, 2010; Weiner & Greene, 2008). Testers now also pay attention to the style of the responses: Do the clients view the design as a whole or see specific details? Do they focus on the blots or on the white spaces between them?
The Thematic Apperception Test (TAT) is a pictorial projective test (Aronow, Weiss, & Reznikoff, 2011; Morgan & Murray, 1935). People who take the TAT are commonly shown 30 cards with black-and-white pictures of individuals in vague situations and are asked to make up a dramatic story about each card. They must tell what is happening in the picture, what led up to it, what the characters are feeling and thinking, and what the outcome of the situation will be.

In 2009, an emergency room physician posted the images of all 10 Rorschach cards, along with common responses to each card, on Wikipedia, the online encyclopedia. The publisher of the test, Hogrefe Publishing, immediately threatened to take Wikipedia to court, saying that the encyclopedia’s willingness to post the images was “unbelievably reckless” (Cohen, 2009). However, no legal actions took place, and to this day, the 10 cards remain on Wikipedia for the entire world to see.

Many psychologists have criticized the Wikipedia posting, arguing that the Rorschach test responses of patients who have previously seen the test on Wikipedia cannot be trusted. In support of their concerns, a recent study found that reading the Wikipedia Rorschach test article did indeed help many individuals perform more positively on the test itself (Schultz & Brabender, 2012). These clinical concerns are consistent with the long-standing positions of the British, Canadian, and American Psychological Associations, who hold that nonprofessional publications of psychological test answers are wrong and potentially harmful to patients (CPA, 2009; BPA, 2007; APA, 1996).

Still other critics point out that the online publication of the Rorschach cards jeopardizes the usefulness of thousands of published studies—studies that have tried to link patients’ Rorschach responses to particular psychological disorders (Cohen, 2009). These studies were conducted on first-time inkblot observers, not on people who had already viewed the cards online.

On the other hand, more than a few test skeptics seem very pleased by the online posting, hoping that it will lower the public’s regard for the test and lessen its clinical use (Radford, 2009). In fact, one recent study suggests that the Rorschach–Wikipedia debate has already led to unfavorable opinions of the test among many individuals (Schultz & Loving 2012).

It appears that this debate is actually leading to an increase—rather than a decrease—in the distribution of psychological tests. Several newspapers reporting on the controversy have themselves published photos of the Rorschach cards (Simple, 2009; White, 2009). And as you will read later in this chapter, intelligence tests, among the most widely used of all psychological tests, are now available—on eBay of all places—to anyone who is willing to pay the price.

**Why do you think this Rorschach debate has led to an increase in the distribution of psychological tests?**

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**Thematic Apperception Test** The Thematic Apperception Test (TAT) is a pictorial projective test (Aronow, Weiss, & Reznikoff, 2011; Morgan & Murray, 1935). People who take the TAT are commonly shown 30 cards with black-and-white pictures of individuals in vague situations and are asked to make up a dramatic story about each card. They must tell what is happening in the picture, what led up to it, what the characters are feeling and thinking, and what the outcome of the situation will be.

**Clinical Test** A device for gathering information about a few aspects of a person’s psychological functioning from which broader information about the person can be inferred.

**Projective Test** A test consisting of ambiguous material that people interpret or respond to.
Clinicians who use the TAT believe that people always identify with one of the characters on each card. The stories are thought to reflect the individuals’ own circumstances, needs, and emotions. For example, a female client seems to be revealing her own feelings when telling this story about a TAT picture similar to the image shown in Figure 4-2:

This is a woman who has been quite troubled by memories of a mother she was resentful toward. She has feelings of sorrow for the way she treated her mother, her memories of her mother plague her. These feelings seem to be increasing as she grows older and sees her children treating her the same way that she treated her mother.

*(Aiken, 1985, p. 372)*

**SENTENCE-COMPLETION TEST** In the sentence-completion test, first developed in the 1920s (Payne, 1928), the test-taker completes a series of unfinished sentences, such as “I wish . . .” or “My father. . . .” The test is considered a good springboard for discussion and a quick and easy way to pinpoint topics to explore.

**DRAWINGS** On the assumption that a drawing tells us something about its creator, clinicians often ask clients to draw human figures and talk about them (McGrath & Carroll, 2012). Evaluations of these drawings are based on the details and shape of the drawing, the solidity of the pencil line, the location of the drawing on the paper, the size of the figures, the features of the figures, the use of background, and comments made by the respondent during the drawing task. In the Draw-a-Person (DAP) test, the most popular of the drawing tests, individuals are first told to draw “a person” and then are instructed to draw a person of the other sex.

**WHAT ARE THE MERITS OF PROJECTIVE TESTS?** Until the 1950s, projective tests were the most commonly used method for assessing personality. In recent years, however, clinicians and researchers have relied on them largely to gain “supplementary” insights (Hogan, 2014; McGrath & Carroll, 2012). One reason for this shift is that practitioners who follow the newer models have less use for the tests than psychodynamic clinicians do. Even more important, the tests have not consistently shown much reliability or validity (Hogan, 2014; Wood et al., 2002).

In reliability studies, different clinicians have tended to score the same person’s projective test quite differently. Similarly, in validity studies, when clinicians try to describe a client’s personality and feelings on the basis of responses to projective tests, their conclusions often fail to match the self-report of the client, the view of the psychotherapist, or the picture gathered from an extensive case history (Bornstein, 2007).

Another validity problem is that projective tests are sometimes biased against minority ethnic groups (Costantino, Dana, & Malgady, 2007) (see Table 4-1). For example, people are supposed to identify with the characters in the TAT when they make up stories about them, yet no members of minority groups are in the TAT pictures. In response to this problem, some clinicians have developed other TAT-like tests with African American or Hispanic figures (Costantino et al., 2007, 1992).
### Multicultural Hot Spots in Assessment and Diagnosis

<table>
<thead>
<tr>
<th>Cultural Hot Spot</th>
<th>Effect on Assessment or Diagnosis</th>
</tr>
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<tbody>
<tr>
<td><strong>Immigrant Client</strong></td>
<td></td>
</tr>
<tr>
<td>Homeland culture may differ from current country’s dominant culture</td>
<td>May misread culture-bound reactions as pathology</td>
</tr>
<tr>
<td>May have left homeland to escape war or oppression</td>
<td>May overlook client’s vulnerability to posttraumatic stress</td>
</tr>
<tr>
<td>May have weak support systems in this country</td>
<td>May overlook client’s heightened vulnerability to stressors</td>
</tr>
<tr>
<td>Lifestyle (wealth and occupation) in this country may fall below lifestyle in homeland</td>
<td>May overlook client’s sense of loss and frustration</td>
</tr>
<tr>
<td>May refuse or be unable to learn dominant language</td>
<td>May misunderstand client’s assessment responses, or may overlook or misdiagnose client’s symptoms</td>
</tr>
<tr>
<td><strong>Ethnic-Minority Client</strong></td>
<td></td>
</tr>
<tr>
<td>May reject or distrust members of dominant culture, including assessor</td>
<td>May experience little rapport with client, or may misinterpret client’s distrust as pathology</td>
</tr>
<tr>
<td>May be uncomfortable with dominant culture’s values (e.g., assertiveness, confrontation) and so find it difficult to apply clinician’s recommendations</td>
<td>May view client as unmotivated</td>
</tr>
<tr>
<td>May manifest stress in culture-bound ways (e.g., somatic symptoms such as stomachaches)</td>
<td>May misinterpret symptom patterns</td>
</tr>
<tr>
<td>May hold cultural beliefs that seem strange to dominant culture (e.g., belief in communication with dead)</td>
<td>May misinterpret cultural responses as pathology (e.g., a delusion)</td>
</tr>
<tr>
<td>May be uncomfortable during assessment</td>
<td>May overlook and feed into client’s discomfort</td>
</tr>
<tr>
<td><strong>Dominant-Culture Assessor</strong></td>
<td><strong>Ethnic-Minority Client</strong></td>
</tr>
<tr>
<td>May be unknowledgeable or biased about ethnic-minority culture</td>
<td>Cultural differences may be pathologized, or symptoms may be overlooked</td>
</tr>
<tr>
<td>May nonverbally convey own discomfort to ethnic-minority client</td>
<td>May become tense and anxious</td>
</tr>
</tbody>
</table>


### Personality Inventories

An alternative way to collect information about individuals is to ask them to assess themselves. Respondents to a **personality inventory** answer a wide range of questions about their behavior, beliefs, and feelings. In the typical personality inventory, individuals indicate whether each of a long list of statements applies to them. Clinicians then use the responses to draw conclusions about the person’s personality and psychological functioning (Hogan, 2014; Watson, 2012).

By far the most widely used personality inventory is the **Minnesota Multiphasic Personality Inventory (MMPI)** (Butcher, 2011). Two adult versions are available—the original test, published in 1945, and the **MMPI-2**, a 1989 revision which was itself revised in 2001. There is also a streamlined version of the inventory called the **MMPI-2-Restructured Form** which was developed in 2008 with the use of more rigorous statistical techniques than those employed in the MMPI and MMPI-2. Finally, a special version of the test for adolescents, the **MMPI-A**, is also used widely (Williams & Butcher, 2011).

The MMPI consists of more than 500 self-statements, to be labeled “true,” “false,” or “cannot say.” The statements cover issues ranging from physical concerns...
to mood, sexual behaviors, and social activities. Altogether the statements make up 10 clinical scales, on each of which an individual can score from 0 to 120. When people score above 70 on a scale, their functioning on that scale is considered deviant. When the 10 scale scores are considered side by side, a pattern called a *profile* takes shape, indicating the person’s general personality. The 10 scales on the MMPI measure the following:

**Hypochondriasis** Items showing abnormal concern with bodily functions (“I have chest pains several times a week.”)

**Depression** Items showing extreme pessimism and hopelessness (“I often feel hopeless about the future.”)

**Hysteria** Items suggesting that the person may use physical or mental symptoms as a way of unconsciously avoiding conflicts and responsibilities (“My heart frequently pounds so hard I can feel it.”)

**Psychopathic deviate** Items showing a repeated and gross disregard for social customs and an emotional shallowness (“My activities and interests are often criticized by others.”)

**Masculinity-femininity** Items that are thought to separate male and female respondents (“I like to arrange flowers.”)

**Paranoia** Items that show abnormal suspiciousness and delusions of grandeur or persecution (“There are evil people trying to influence my mind.”)

**Psychasthenia** Items that show obsessions, compulsions, abnormal fears, and guilt and indecisiveness (“I save nearly everything I buy, even after I have no use for it.”)

**Schizophrenia** Items that show bizarre or unusual thoughts or behavior (“Things around me do not seem real.”)

**Hypomania** Items that show emotional excitement, overactivity, and flight of ideas (“At times I feel very ‘high’ or very ‘low’ for no apparent reason.”)

**Social introversion** Items that show shyness, little interest in people, and insecurity (“I am easily embarrassed.”)

The MMPI-2, the newer version of the MMPI, contains 567 items—many identical to those in the original, some rewritten to reflect current language (“upset stomach,” for instance, replaces “acid stomach”), and others that are new. Before being adopted, the MMPI-2 was tested on a more diverse group of people than was the original MMPI. Thus scores on the revised test are thought to be more accurate indicators of personality and abnormal functioning (Butcher, 2011, 2010).

The MMPI and other personality inventories have several advantages over projective tests (Hogan, 2014; Ben-Porath, 2012; Watson 2012). Because they are computerized or paper-and-pencil tests, they do not take much time to administer, and they are objectively scored. Most of them are standardized, so one person’s scores can be compared with those of many others. Moreover, they often display greater test–retest reliability than projective tests (Zubeidat et al., 2011). For example, people who take the MMPI a second time after a period of less than 2 weeks receive approximately the same scores (Graham, 2014, 2006).
Personality inventories also appear to have more validity, or accuracy, than projective tests (Butcher, 2011, 2010; Lanyon, 2007). However, they can hardly be considered highly valid. When clinicians have used these tests alone, they have not regularly been able to judge a respondent’s personality accurately (Braxton et al., 2007). One problem is that the personality traits that the tests seek to measure cannot be examined directly. How can we fully know a person’s character, emotions, and needs from self-reports alone?

Another problem is that despite the use of more diverse standardization groups by the MMPI-2 designers, this and other personality tests continue to have certain cultural limitations. Responses that indicate a psychological disorder in one culture may be normal responses in another (Butcher, 2010; Dana, 2005, 2000). In Puerto Rico, for example, where it is common to practice spiritualism, it would be normal to answer “true” to the MMPI item “Evil spirits possess me at times.” In other populations, that response could indicate psychopathology (Rogler, Malgady, & Rodriguez, 1989).

Despite such limits in validity, personality inventories continue to be popular. Research indicates that they can help clinicians learn about people’s personal styles and disorders as long as they are used in combination with interviews or other assessment tools.

Response Inventories Like personality inventories, response inventories ask people to provide detailed information about themselves, but these tests focus on one specific area of functioning (Watson, 2012; Blais & Baer, 2010). For example, one such test may measure affect (emotion), another social skills, and still another cognitive processes. Clinicians can use the inventories to determine the role such factors play in a person’s disorder.

Affective inventories measure the severity of such emotions as anxiety, depression, and anger (Osman et al., 2008). In one of the most widely used affective inventories, the Beck Depression Inventory—an excerpt of which is shown in Table 4-2—people rate their level of sadness and its effect on their functioning (Wang & Gorenstein, 2013). For social skills inventories, used particularly by behavioral and

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<thead>
<tr>
<th>Table: 4-2</th>
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<tr>
<th>Sample Items from the Beck Depression Inventory</th>
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**Suicidal ideas**

<table>
<thead>
<tr>
<th>Items</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>I don’t have any thoughts of killing myself.</td>
</tr>
<tr>
<td>1</td>
<td>I have thoughts of killing myself but I would not carry them out.</td>
</tr>
<tr>
<td>2</td>
<td>I would like to kill myself.</td>
</tr>
<tr>
<td>3</td>
<td>I would kill myself if I had the chance.</td>
</tr>
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</table>

**Work inhibition**

<table>
<thead>
<tr>
<th>Items</th>
<th>Inventory</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>I can work about as well as before.</td>
</tr>
<tr>
<td>1</td>
<td>It takes extra effort to get started at doing something.</td>
</tr>
<tr>
<td>2</td>
<td>I have to push myself very hard to do anything.</td>
</tr>
<tr>
<td>3</td>
<td>I can’t do any work at all.</td>
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</tbody>
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**Loss of libido**

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<th>Items</th>
<th>Inventory</th>
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<tr>
<td>0</td>
<td>I have not noticed any recent change in my interest in sex.</td>
</tr>
<tr>
<td>1</td>
<td>I am less interested in sex than I used to be.</td>
</tr>
<tr>
<td>2</td>
<td>I am much less interested in sex now.</td>
</tr>
<tr>
<td>3</td>
<td>I have lost interest in sex completely.</td>
</tr>
</tbody>
</table>
family-social clinicians, respondents indicate how they would react in a variety of social situations (Vaz et al., 2013; Norton et al., 2010). Cognitive inventories reveal a person’s typical thoughts and assumptions and can help uncover counterproductive patterns of thinking (Takei et al., 2011; Glass & Merluzzi, 2000). They are, not surprisingly, often used by cognitive therapists and researchers.

Both the number of response inventories and the number of clinicians who use them have increased steadily in the past 30 years (Black, 2005). At the same time, however, these inventories have major limitations. With the notable exceptions of the Beck Depression Inventory and a few others, many of the tests have not been subjected to careful standardization, reliability, and validity procedures (Blais & Baer, 2010; Weis & Smenner, 2007). Often they are created as a need arises, without being tested for accuracy and consistency.

Psychophysiological Tests Clinicians may also use psychophysiological tests, which measure physiological responses as possible indicators of psychological problems (Daly et al., 2014; Rodriguez-Ruiz et al., 2012). This practice began three decades ago, after several studies suggested that states of anxiety are regularly accompanied by physiological changes, particularly increases in heart rate, body temperature, blood pressure, skin reactions (galvanic skin response), and muscle contractions. The measuring of physiological changes has since played a key role in the assessment of certain psychological disorders.

One psychophysiological test is the polygraph, popularly known as a lie detector (Rosky, 2013; Boucsein, 2012; Meijer & Verschuere, 2010). Electrodes attached to various parts of a person’s body detect changes in breathing, perspiration, and heart rate while the person answers questions. The clinician observes these functions while the person answers “yes” to control questions—questions whose answers are known to be yes, such as “Are both your parents alive?” Then the clinician observes the same physiological functions while the person answers test questions, such as “Did you commit this robbery?” If breathing, perspiration, and heart rate suddenly increase, the person is suspected of lying.

Like other kinds of clinical tests, psychophysiological tests have their drawbacks (Rusconi & Mitchener-Nissen, 2013). Many require expensive equipment that must be carefully tuned and maintained. In addition, psychophysiological measurements can be inaccurate and unreliable (see PsychWatch on the next page). The laboratory equipment itself—elaborate and sometimes frightening—may arouse a participant’s nervous system and thus change his or her physical responses. Physiological responses may also change when they are measured repeatedly in a single session. Galvanic skin responses, for example, often decrease during repeated testing.

Neurological and Neuropsychological Tests Some problems in personality or behavior are caused primarily by damage to the brain or by changes in brain activity. Head injuries, brain tumors, brain malfunctions, alcoholism, infections, and other disorders can all cause such impairment. If a psychological dysfunction is to be treated effectively, it is important to know whether its primary cause is a physical abnormality in the brain.

A number of techniques may help pinpoint brain abnormalities. Some procedures, such as brain surgery, biopsy, and X ray, have been used for many years. More recently, scientists have developed a number of neurological tests, which are designed to measure brain structure and activity directly. One neurological test...
Clinical Assessment, Diagnosis, and Treatment

The Truth, the Whole Truth, and Nothing but the Truth

In movies, criminals being grilled by the police reveal their guilt by sweating, shaking, cursing, or twitching. When they are hooked up to a polygraph (a lie detector), the needles bounce all over the paper. This image has been with us since World War I, when some clinicians developed the theory that people who are telling lies display systemic changes in their breathing, perspiration, and heart rate (Marston, 1917).

The danger of relying on polygraph tests is that, according to researchers, they do not work as well as we would like (Rosky, 2013; Rusconi & Mitchener-Nissen, 2013; Meijer & Verschuere, 2010). The public did not pay much attention to this inconvenient fact until the mid-1980s, when the American Psychological Association officially reported that polygraphs were often inaccurate and the U.S. Congress voted to restrict their use in criminal prosecution and employment screening (Krapohl, 2002). Research indicates that 8 out of 100 truths, on average, are called lies in polygraph testing (Grubin, 2010; Raskin & Honts, 2002; MacLaren, 2001). Imagine, then, how many innocent people might be convicted of crimes if polygraph findings were taken as valid evidence in criminal trials.

Given such findings, polygraphs are less trusted and less popular today than they once were. For example, few courts now admit results from such tests as evidence of criminal guilt (Grubin, 2010; Daniels, 2002). Polygraph testing has no means disappeared, however. The FBI uses it extensively, parole boards and probation offices routinely use it to help decide whether to release convicted offenders, and in public-sector hiring (such as for police officers), the use of polygraph screening may actually be on the increase (Meijer & Verschuere, 2010; Kokish et al., 2005).

is the electroencephalogram (EEG), which records brain waves, the electrical activity that takes place within the brain as a result of neurons firing. In an EEG, electrodes placed on the scalp send brain-wave impulses to a machine that records them.

Other neurological tests actually take “pictures” of brain structure or brain activity. These tests, called neuroimaging, or brain scanning, techniques, include computerized axial tomography (CAT scan or CT scan), in which X rays of the brain’s structure are taken at different angles and combined; positron emission tomography (PET scan), a computer-produced motion picture of chemical activity throughout the brain; and magnetic resonance imaging (MRI), a procedure that uses the magnetic property of certain hydrogen atoms in the brain to create a detailed picture of the brain’s structure.

A more recent version of the MRI, functional magnetic resonance imaging (fMRI), converts MRI pictures of brain structures into detailed pictures of neuron activity, thus offering a picture of the functioning brain. In this procedure, an MRI scanner...
detects rapid changes in the flow or volume of blood in areas across the brain while an individual is experiencing emotions or performing specific cognitive tasks. By interpreting these blood changes as indications of neuron activity at sites throughout the brain, a computer then generates images of the brain areas that are active during the individual’s emotional experiences or cognitive behaviors, thus offering a picture of the functioning brain. Partly because fMRI-produced images of brain functioning are so much clearer than PET scan images, the fMRI has generated enormous enthusiasm among brain researchers since it was first developed in 1990.

Though widely used, these techniques are sometimes unable to detect subtle brain abnormalities. Clinicians have therefore developed less direct but sometimes more revealing neuropsychological tests that measure cognitive, perceptual, and motor performances on certain tasks; clinicians interpret abnormal performances as an indicator of underlying brain problems (Hogan, 2014; Summers & Saunders, 2012). Brain damage is especially likely to affect visual perception, memory, and visual–motor coordination, so neuropsychological tests focus particularly on these areas. The famous Bender Visual-Motor Gestalt Test, for example, consists of nine cards, each displaying a simple geometrical design. Patients look at the designs one at a time and copy each one on a piece of paper. Later they try to redraw the designs from memory. Notable errors in accuracy by individuals older than 12 are thought to reflect organic brain impairment. Clinicians often use a battery, or series, of neuropsychological tests, each targeting a specific skill area (Flanagan, Ortiz, & Alfonso, 2013; Reitan & Wolfson, 2005, 1996).

Intelligence Tests
An early definition of intelligence described it as “the capacity to judge well, to reason well, and to comprehend well” (Binet & Simon, 1916, p. 192). Because intelligence is an inferred quality rather than a specific physical process, it can be measured only indirectly. In 1905, French psychologist Alfred Binet and his associate Théodore Simon produced an intelligence test consisting of a series of tasks requiring people to use various verbal and nonverbal skills. The general score derived from this and later intelligence tests is termed an intelligence quotient (IQ), so called because initially it represented the ratio of a person’s “mental” age to his or her “chronological” age, multiplied by 100.

There are now more than 100 intelligence tests available. As you will see in Chapter 17, intelligence tests play a key role in the diagnosis of intellectual
disability (mental retardation), and they can also help clinicians identify other problems (Hogan, 2014; Mishak, 2014; Dehn, 2013).

Intelligence tests are among the most carefully produced of all clinical tests (Bowden et al., 2011; Kellerman & Burry, 2007). Because they have been standardized on large groups of people, clinicians have a good idea how each individual's score compares with the performance of the population at large. These tests have also shown very high reliability: people who repeat the same IQ test years later receive approximately the same score. Finally, the major IQ tests appear to have fairly high validity: children's IQ scores often correlate with their performance in school, for example.

Nevertheless, intelligence tests have some key shortcomings. Factors that have nothing to do with intelligence, such as low motivation or high anxiety, can greatly influence test performance (Chaudhry & Ready, 2012) (see MediaSpeak below). In addition, IQ tests may contain cultural biases in their language or tasks that place people of one background at an advantage over those of another (Goldfinger

### MediaSpeak

**Intelligence Tests Too? eBay and the Public Good**

Michelle Roberts, Associated Press

Intelligence tests . . . are for sale on eBay Inc.'s online auction site, and the test maker is worried they will be misused.

The series of Wechsler intelligence tests, made by San Antonio-based Harcourt Assessment, Inc., are supposed to be sold to and administered by only clinical psychologists and trained professionals.

Given more than a million times a year nationwide, according to Harcourt, the intelligence tests often are among numerous tests ordered by prosecutors and defense attorneys to determine the mental competence of criminal defendants. A low IQ, for example, can be used to argue leniency in sentencing.

Schools use the tests to determine whether to place a student in a special program, whether for gifted or struggling students. Harcourt officials say they fear the tests for sale on eBay will be misused for coaching by lawyers or parents.

But eBay has denied their request to restrict the sale of the tests. eBay officials say there is nothing illegal about selling the tests, and it cannot monitor every possible misuse of items sold through its network of 248 million buyers and sellers. [The tests continue to be available on eBay as of 2014.] Five of the tests were listed for sale . . . for about $175 to $900.

The latest edition of the adult test, which retails for $939, was offered on eBay for $249.99.

"In order for it to maintain its integrity, there needs to be limited availability," said [a] Harcourt spokesman. . . . "Misinterpreting the results [of questions and tasks on the tests], even without malicious intent, could lead to mistakes in assessing a child's intelligence. . . ."

IQ Tests for Sale on eBay by Michelle Roberts, The Associated Press, 12/18/2007. Used with permission of The Associated Press Copyright © 2014. All rights reserved.
Similarly, members of some minority groups may have little experience with this kind of test, or they may be uncomfortable with test examiners of a majority ethnic background. Either way, their performances may suffer.

**Clinical Observations**

In addition to interviewing and testing people, clinicians may systematically observe their behavior. In one technique, called *naturalistic observation*, clinicians observe clients in their everyday environments. In another, *analog observation*, they observe them in an artificial setting, such as a clinical office or laboratory. Finally, in *self-monitoring*, clients are instructed to observe themselves.

**Naturalistic and Analog Observations** Naturalistic clinical observations usually take place in homes, schools, institutions such as hospitals and prisons, or community settings. Most of them focus on parent–child, sibling–sibling, or teacher–child interactions and on fearful, aggressive, or disruptive behavior (Hughes, Bullock, & Coplan, 2013; Lindhiem, Bernard, & Dozier, 2011). Often such observations are made by *participant observers*—key people in the client’s environment—and reported to the clinician.

When naturalistic observations are not practical, clinicians may resort to analog observations, often aided by special equipment such as a video camera or one-way mirror (Lindhiem et al., 2011; Haynes, 2001). Analog observations often have focused on children interacting with their parents, married couples attempting to settle a disagreement, speech–anxious people giving a speech, and phobic people approaching an object they find frightening.

Although much can be learned from actually witnessing behavior, clinical observations have certain disadvantages. For one thing, they are not always reliable. It is possible for various clinicians who observe the same person to focus on different aspects of behavior, assess the person differently, and arrive at different conclusions (Meersand, 2011). Careful training of observers and the use of observer checklists can help reduce this problem.

Similarly, observers may make errors that affect the validity, or accuracy, of their observations (Wilson et al., 2010; Aiken & Groth-Marnat, 2006). The observer may suffer from *overload* and be unable to see or record all of the important behaviors and events. Or the observer may experience *observer drift*, a steady decline in accuracy as a result of fatigue or of a gradual unintentional change in the standards used when an observation continues for a long period of time. Another possible problem is *observer bias*—the observer’s judgments may be influenced by information and expectations he or she already has about the person (Hróbjartsson et al., 2014; Pellegrini, 2011).

A client’s *reactivity* may also limit the validity of clinical observations; that is, his or her behavior may be affected by the very presence of the observer (Mowery et al., 2010; Norton et al., 2010). If schoolchildren are aware that someone special is watching them, for example, they may change their usual classroom behavior, perhaps in the hope of creating a good impression (Lane et al., 2011).

Finally, clinical observations may lack *cross-situational validity*. A child who behaves aggressively in school is not necessarily aggressive at home or with friends after school. Because behavior is often specific to particular situations, observations in one setting cannot always be applied to other settings (Kagan, 2007).

**Self-Monitoring** As you saw earlier, personality and response inventories are tests in which individuals report their own behaviors, feelings, or cognitions. In a related assessment procedure, *self-monitoring*, people observe themselves and carefully
record the frequency of certain behaviors, feelings, or thoughts as they occur over time (Huh et al., 2013; Wright & Truax, 2008). How frequently, for instance, does a drug user have an urge for drugs or a headache sufferer have a headache? Self-monitoring is especially useful in assessing behavior that occurs so infrequently that it is unlikely to be seen during other kinds of observations. It is also useful for behaviors that occur so frequently that any other method of observing them in detail would be impossible—for example, smoking, drinking, or other drug use. Finally, self-monitoring may be the only way to observe and measure private thoughts or perceptions.

Like all other clinical assessment procedures, however, self-monitoring has drawbacks (Huh et al., 2013; Baranski, 2011). Here too validity is often a problem. People do not always manage or try to record their observations accurately. Furthermore, when people monitor themselves, they may change their behaviors unintentionally (Huh et al., 2013; Otten, 2004). Smokers, for example, often smoke fewer cigarettes than usual when they are monitoring themselves, and teachers give more positive and fewer negative comments to their students.

Diagnosis: Does the Client’s Syndrome Match a Known Disorder?

Clinicians use the information from interviews, tests, and observations to construct an integrated picture of the factors that are causing and maintaining a client’s disturbance, a construction sometimes known as a clinical picture (Goldfinger & Pomerantz, 2014; Kellerman & Burry, 2007). Clinical pictures also may be influenced to a degree by the clinician’s theoretical orientation (Garb, 2010, 2006). The psychologist who worked with Franco held a cognitive-behavioral view of abnormality and so produced a picture that emphasized modeling and reinforcement principles and Franco’s expectations, assumptions, and interpretations:

Franco’s mother had reinforced his feelings of insecurity and his belief that he was unintelligent and inferior. When teachers tried to encourage and push Franco, his mother actually called him “an idiot.” Although he was the only one in his family to attend college and did well there, she told him he was too inadequate to succeed in the world. When he received a B in a college algebra course, his mother told him, “You’ll never have money.” She once told him, “You’re just like your father, dumb as a post,” and railed against, “the dumb men I got stuck with.”

As a child Franco had watched his parents argue. Between his mother’s self-serving complaints and his father’s rants about his backbreaking work to provide for his family, Franco had decided that life would be unpleasant. He believed it was natural for couples to argue and blame each other. Using his parents as models, Franco believed that when he was displeased with a girlfriend—Maria or a prior girlfriend—he should yell at her. At the same time, he was confused that several of his girlfriends had complained about his temper.

He took the termination of his relationship with Maria as proof that he was “stupid.” He felt foolish to have broken up with her. He interpreted his behavior and the break-up as proof that he would never be loved and that he would never find happiness. In his mind, all he had to look forward to from here on out was a lifetime of problematic relationships, fights, and getting fired from lesser and lesser jobs. This hopelessness fed his feelings of depression and also made it hard for him to try to make himself feel better.
With the assessment data and clinical picture in hand, clinicians are ready to make a **diagnosis** (from the Greek word for “a discrimination”)—that is, a determination that a person’s psychological problems constitute a particular disorder. When clinicians decide, through diagnosis, that a client’s pattern of dysfunction reflects a particular disorder, they are saying that the pattern is basically the same as one that has been displayed by many other people, has been investigated in a variety of studies, and perhaps has responded to particular forms of treatment. They can then apply what is generally known about the disorder to the particular individual they are trying to help. They can, for example, better predict the future course of the person’s problem and the treatments that are likely to be helpful.

**Classification Systems**

The principle behind diagnosis is straightforward. When certain symptoms occur together regularly—a cluster of symptoms is called a **syndrome**—and follow a particular course, clinicians agree that those symptoms make up a particular mental disorder (see Table 4-3). If people display this particular pattern of symptoms, diagnosticians assign them to that diagnostic category. A list of such categories, or disorders, with descriptions of the symptoms and guidelines for assigning individuals to the categories, is known as a **classification system**.

In 1883, Emil Kraepelin developed the first modern classification system for abnormal behavior (see Chapter 1). His categories formed the foundation for the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), the classification system currently written by the American Psychiatric Association (APA, 2013). The DSM is the most widely used classification system in North America. Most other countries rely primarily on a system called the *International Classification of Diseases* (ICD), developed by the World Health Organization, which lists both medical and psychological disorders. Although there are a number of differences between the disorders listed in the DSM and ICD and in their descriptions of criteria for various disorders (the DSM's descriptions are more detailed), the federal government has required that by the end of 2014, the numerical codes used by the DSM for all disorders must match those used by the ICD—a matching that is expected to lead to more uniformity and accuracy when clinicians fill out insurance reimbursement forms.

The content of the DSM has been changed significantly over time. The current edition, called DSM-5, was published in 2013. It features a number of changes from the previous edition, DSM-IV-TR, and the editions prior to that. It may seem like the DSM-5 shift from using Roman numerals to Arabic numerals for its title is but a cosmetic one, much like the “Super Bowl 50” shift from Roman to Arabic numerals that is scheduled to take place in 2016. In fact, however, the DSM is changing to Arabic numerals in anticipation of the periodic DSM updates that will be made online over the coming years—updates that can now be distinguished as DSM-5.1, DSM-5.2, and so on.

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**Why do you think many clinicians prefer the label “person with schizophrenia” over “schizophrenic person”?**

**Mental Health Awareness Dates**

<table>
<thead>
<tr>
<th>January</th>
<th>Mental Wellness Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>Developmental Disabilities Awareness Month</td>
</tr>
<tr>
<td></td>
<td>National Self-Injury Awareness Month</td>
</tr>
<tr>
<td>April</td>
<td>Alcohol Awareness Month</td>
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<tr>
<td></td>
<td>National Autism Awareness Month</td>
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<tr>
<td></td>
<td>National Stress Awareness Month</td>
</tr>
<tr>
<td>May</td>
<td>Children’s Mental Health Awareness Week</td>
</tr>
<tr>
<td></td>
<td>National Anxiety and Depression Awareness Week</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia Awareness Week</td>
</tr>
<tr>
<td>June</td>
<td>Panic Awareness Day (June 17)</td>
</tr>
<tr>
<td></td>
<td>Posttraumatic Stress Disorder Awareness Day (June 27)</td>
</tr>
<tr>
<td>September</td>
<td>World Suicide Prevention Day (September 10)</td>
</tr>
<tr>
<td>October</td>
<td>National Depression Awareness Month</td>
</tr>
<tr>
<td></td>
<td>World Mental Health Day (October 10)</td>
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<tr>
<td></td>
<td>National Bipolar Awareness Day (October 10)</td>
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<tr>
<td></td>
<td>OCD Awareness Week</td>
</tr>
<tr>
<td></td>
<td>ADHD Awareness Month</td>
</tr>
<tr>
<td>November</td>
<td>National Alzheimer’s Disease Awareness Month</td>
</tr>
</tbody>
</table>

DSM-5 lists more than 500 mental disorders (see Figure 4-3). Each entry describes the criteria for diagnosing the disorder and the key clinical features of the disorder. The system also describes features that are often but not always related to the disorder. The classification system is further accompanied by background information such as research findings; age, culture, or gender trends (see PsychWatch on the next page); and each disorder’s prevalence, risk, course, complications, predisposing factors, and family patterns.

DSM-5 requires clinicians to provide both categorical and dimensional information as part of a proper diagnosis. Categorical information refers to the name of the distinct category (disorder) indicated by the client’s symptoms. Dimensional information is a rating of how severe a client’s symptoms are and how dysfunctional the client is across various dimensions of personality and behavior.

**Categorical Information** First, the clinician must decide whether the person is displaying one of the hundreds of psychological disorders listed in the manual. Some of the most frequently diagnosed disorders are the anxiety disorders and depressive disorders.

**ANXIETY DISORDERS** People with anxiety disorders may experience general feelings of anxiety and worry (*generalized anxiety disorder*); fears of specific situations, objects, or activities (*phobias*); anxiety about social situations (*social anxiety disorder*); repeated outbreaks of panic (*panic disorder*); or anxiety about being separated from one’s parents or other key individuals (*separation anxiety disorder*).

**DEPRESSIVE DISORDERS** People with depressive disorders may experience an episode of extreme sadness and related symptoms (*major depressive disorder*), persistent and chronic sadness (*persistent depressive disorder*), or severe premenstrual sadness and related symptoms (*premenstrual dysphoric disorder*).

Although people may receive just one diagnosis from the DSM-5 list, they often receive more than one. Franco would likely receive a diagnosis of *major depressive disorder*. In addition, let’s suppose the clinician judged that Franco’s worries about his teachers’ opinions of him and his later concerns that supervisors at work would discover his inadequate skills were really but two examples of a much broader, persistent pattern of excessive worry, concern, and avoidance. He might then receive an additional diagnosis of *generalized anxiety disorder*. Alternatively, if Franco’s anxiety symptoms did not rise to the level of generalized anxiety disorder, his diagnosis of major depressive disorder might simply specify that he is experiencing some features of anxiety (*major depressive disorder with anxious distress*).

**Dimensional Information** In addition to deciding what disorder a client is displaying, diagnosticians assess the current severity of the client’s disorder—that is, how much the symptoms impair the client. For each disorder, the framers of DSM-5 have suggested various rating scales that may prove useful for evaluating the severity of the particular disorder (APA, 2013). In cases of major depressive disorder, for

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**Figure 4-3**

How many people in the United States qualify for a DSM diagnosis during their lives? Almost half, according to some surveys. Some people even experience two or more different disorders, which is known as comorbidity. (Information from: Greenberg, 2011; Kessler et al., 2005.)

*Am I a happy man or just an asymptomatic one?*
example, two scales are suggested by DSM-5: the Cross-Cutting Symptom Measure and the Emotional Distress—Depression Scale. The former scale indicates the current frequency of various problematic feelings and behaviors (for example, “I do not know who I really am or what I want out of life”) and the latter indicates the frequency of various depression-specific feelings and behaviors (for example, “I feel worthless”). Using scores from these scales, the diagnostician then rates the client’s depression as “mild,” “moderate,” or “severe.” Based on his clinical interview, tests, and observations, Franco might warrant a rating of moderate depression from his therapist. DSM-5 is the first edition of the DSM to consistently seek both categorical and dimensional information as equally important parts of the diagnosis, rather than categorical information alone.

Additional Information  Clinicians also may include other useful information when making a diagnosis. They may, for example, indicate special psychosocial
problems the client has. Franco’s recent breakup with his girlfriend might be noted as relationship distress. Altogether, Franco might receive the following diagnosis:

**Diagnosis:** Major depressive disorder with anxious distress  
**Severity:** Moderate  
**Additional information:** Relationship distress

**Is DSM-5 an Effective Classification System?**

A classification system, like an assessment method, is judged by its reliability and validity. Here reliability means that different clinicians are likely to agree on the diagnosis when they use the system to diagnose the same client. Early versions of the DSM were at best moderately reliable (Regier et al., 2011; Malik & Beutler, 2002). In the early 1960s, for example, four clinicians, each relying on DSM-I, the first edition of the DSM, independently interviewed 153 patients (Beck et al., 1962). Only 54 percent of their diagnoses were in agreement. Because all four clinicians were experienced diagnosticians, their failure to agree suggested deficiencies in the classification system.

The framers of DSM-5 followed certain procedures in their development of the new manual to help ensure that DSM-5 would have greater reliability than the previous DSMs (APA, 2013; Hyman, 2011). For example, they conducted extensive reviews of research to pinpoint which categories in past DSMs had been too vague and unreliable. In addition, they gathered input from a wide range of experienced clinicians and researchers. They then developed a number of new diagnostic criteria and categories, expecting that the new criteria and categories were in fact reliable. Despite such efforts, some critics continue to have concerns about the procedures used in the development of DSM-5 (Brown, Holland, & Keel, 2014; Freedman et al., 2013; Frances, 2013). They worry, for example, that the framers failed to run a sufficient number of their own studies—in particular, field studies that test the merits of the new criteria and categories. In turn, the critics fear that DSM-5 may have retained several of the reliability problems that were on display in the past DSMs. It may be, for example, that, as DSM-5 continues to be used over the coming years, many clinicians will have difficulty distinguishing one kind of DSM-5 anxiety disorder from another. The disorder of a particular client may be classified as generalized anxiety disorder by one clinician, agoraphobia (fear of traveling outside of one’s home) by another, and social anxiety disorder (fear of social situations) by yet another. Studies on such issues are now under way and should soon reveal whether these concerns are warranted.

The validity of a classification system is the accuracy of the information that its diagnostic categories provide. Categories are of most use to clinicians when they demonstrate predictive validity—that is, when they help predict future symptoms or events. A common symptom of major depressive disorder is either insomnia or excessive sleep. When clinicians give Franco a diagnosis of major depressive disorder, they expect that he may eventually develop sleep problems even if none are present now. In addition, they expect him to respond to treatments that are effective for other depressed persons. The more often such predictions are accurate, the greater a category’s predictive validity.

DSM-5’s framers tried to also ensure the validity of this new edition by conducting extensive reviews of research and consulting with numerous clinical advisors. As a result, its criteria...
and categories may have stronger validity than those of the earlier versions of the DSM. But, again, many clinical theorists worry that at least some of the criteria and categories in DSM-5 are based on weak research and that others may reflect gender or racial bias (Koukopoulos & Sani, 2014; Rhebergen & Graham, 2014; Frances, 2013; Freedman et al., 2013). Once again, current studies on issues of this kind should soon clarify the merits of such concerns.

Actually, one important organization, the National Institute of Mental Health (NIMH), has already concluded that the validity of DSM-5 is sorely lacking and is acting accordingly (Insel & Lieberman, 2013; Lane, 2013). The world’s largest funding agency for mental health research, NIMH has announced that it will no longer give financial support to clinical studies that rely exclusively on DSM-5 criteria. And, more generally, the agency continues to develop its own classification tool, called the Research Domain Criteria (RDoC), which it expects to eventually be the primary such tool used by researchers. While the NIMH announcement is certainly a blow to the prestige of DSM-5, it is worth noting that the RDoC is itself receiving considerable criticism from many clinical theorists. They believe that the final version of this new tool, which is based on the premise that mental disorders are best viewed and studied as biological disorders, will minimize environmental and psychological factors in its classifications, while focusing excessively on genetics, brain scans, cognitive neuroscience, and other such areas of study (Lane, 2013).

**Call for Change**

The effort to produce DSM-5 took more than a decade. After years of preliminary work, a DSM-5 task force and numerous work groups were formed in 2006; with the goal of developing a DSM that addressed the limitations of previous DSM editions. As noted earlier, the task force and work groups conducted scientific reviews and gathered input from a wide range of clinical advisors to help develop a DSM that would reflect current insights, research findings, and clinical concerns (APA, 2013).

Between 2010 and 2012, the task force released several drafts of DSM-5 online and asked clinical researchers and practitioners to offer their suggestions. Given the outreach of the Internet, the response from the clinical community was enormous—beyond anything the previous DSM task forces had received. And not surprisingly, given the diversity of orientations in the clinical field today, the response was wide-ranging—including an onslaught of criticism from many quarters. The DSM-5 task force took the online feedback into consideration and completed the new edition of the classification system. Finally, in May 2013 DSM-5, the new diagnostic and classification system, was published. The categories and criteria of DSM-5 are featured throughout this textbook (APA, 2013).

Some of the key changes in DSM-5 are the following:

➤ Adding a new category, “autism spectrum disorder,” that combines certain past categories such as “autistic disorder” and “Asperger’s syndrome” (see Chapter 17).
➤ Viewing “obsessive-compulsive disorder” as a problem that is different from the anxiety disorders and grouping it instead along with other obsessive-compulsive-like disorders such as “hoarding disorder,” “body dysmorphic disorder,” “trichotillomania” (hair-pulling disorder), and “excoriation (skin-picking) disorder” (see Chapter 5).
➤ Viewing “posttraumatic stress disorder” as a problem that is distinct from the anxiety disorders (see Chapter 6).
➤ Adding new categories, “disruptive mood dysregulation disorder,” “persistent depressive disorder,” and “premenstrual dysphoric disorder,” and grouping them with other kinds of depressive disorders (see Chapter 7).
➤ Adding a new category, “somatic symptom disorder” (see Chapter 10).
Replacing the term “hypochondriasis” with the new term “illness anxiety disorder” (see Chapter 10).

Adding a new category, “binge eating disorder” (see Chapter 11).

Adding a new category, “substance use disorder,” that combines past categories “substance abuse” and “substance dependence” (see Chapter 12).

Viewing “gambling disorder” as a problem that should be grouped as an addictive disorder alongside the substance use disorders (see Chapter 12).

Replacing the term “gender identity disorder” with the new term “gender dysphoria” (see Chapter 13).

Replacing the term “mental retardation” with the new term “intellectual disability” (see Chapter 17).

Adding a new category, “specific learning disorder,” that combines past categories “reading disorder,” “mathematics disorder,” and “disorder of written expression” (see Chapter 17).

Replacing the term “dementia” with the new term “neurocognitive disorder” (see Chapter 18).

Adding a new category, “mild neurocognitive disorder” (see Chapter 18).

Can Diagnosis and Labeling Cause Harm?

Even with trustworthy assessment data and reliable and valid classification categories, clinicians will sometimes arrive at a wrong conclusion (Faust & Ahern, 2012; Trull & Prinstein, 2012). Like all human beings, they are flawed information processors. Studies show that they are overly influenced by information gathered early in the assessment process (Dawes, Faust, & Meehl, 2002; Meehl, 1996, 1960). They sometimes pay too much attention to certain sources of information, such as a parent’s report about a child, and too little to others, such as the child’s point of view (McCoy, 1976). Finally, their judgments can be distorted by any number of personal biases—gender, age, race, and socioeconomic status, to name just a few (Trull & Prinstein, 2012; Vasquez, 2007). Given the limitations of assessment tools,
assessors, and classification systems, it is small wonder that studies sometimes uncover shocking errors in diagnosis, especially in hospitals (Mitchell, 2010; Vickrey, Samuels, & Ropper, 2010).

In a classic study, for example, a clinical team was asked to reevaluate the records of 131 patients at a mental hospital in New York, conduct interviews with many of these persons, and arrive at a diagnosis for each one (Lipton & Simon, 1985). The researchers then compared the team’s diagnoses with the original diagnoses for which the patients were hospitalized. Although 89 of the patients had originally received a diagnosis of schizophrenia, only 16 received it upon reevaluation. And whereas 15 patients originally had been given a diagnosis of a mood disorder, 50 received it now. It is obviously important for clinicians to be aware that such huge disagreements can occur.

Beyond the potential for misdiagnosis, the very act of classifying people can lead to unintended results. As you read in Chapter 3, for example, many family-social theorists believe that diagnostic labels can become self-fulfilling prophecies. When people are diagnosed as mentally disturbed, they may be perceived and reacted to correspondingly. If others expect them to take on a sick role, they may begin to consider themselves sick as well and act that way. Furthermore, our society attaches a stigma to abnormality (Hansson et al., 2014; Bell et al., 2011). People labeled mentally ill may find it difficult to get a job, especially a position of responsibility, or to be welcomed into social relationships. Once a label has been applied, it may stick for a long time.

Because of these problems, some clinicians would like to do away with diagnoses. Others disagree. They believe we must simply work to increase what is known about psychological disorders and improve diagnostic techniques. They hold that classification and diagnosis are critical to understanding and treating people in distress.

Treatment: How Might the Client Be Helped?

Over the course of 10 months, Franco was treated for depression and related symptoms. He improved considerably during that time, as the following report describes:

> During therapy, Franco’s debilitating depression relented. Increasingly, he came to appreciate that his mother’s accusations against him—and his self-accusations—were not accurate. He also started to consider the possibility that Maria’s reluctance to commit to him had been more about where she was in her life than a sign that he was a terrible or inadequate person. Eventually, Maria and Franco talked again, although they did not renew their relationship. Franco felt better realizing that she did not hate him. She even told him that her mother had said some kind things about him after their breakup.

> Franco also managed to straighten out his problems at work. He explained his recent difficulties to his immediate supervisor at the bank and committed himself to improving his recent performance. His supervisor, with whom he had been friendly before his recent struggles, said she was glad that he was communicating openly, and emphasized that he would be given the opportunity to improve his performance. He was surprised to hear how highly he had been regarded over the years, although as she put it, “Why would you have been promoted otherwise?”

> Over the course of therapy, Franco also forced himself to spend more time having fun with his friends. He found his mood on the upswing as a result of these re-established relationships. In addition, he began dating a woman he met through Jesse. He often considered the lessons he learned in treatment, trying to handle this new relationship in ways different from the destructive patterns of his past. 
Clearly, treatment helped Franco, and by its conclusion he was a happier, more functional person than the man who had first sought help 10 months earlier. But how did his therapist decide on the treatment program that proved to be so helpful?

**Treatment Decisions**

Franco’s therapist began, like all therapists, with assessment information and diagnostic decisions. Knowing the specific details and background of Franco’s problem (idiographic data) and combining this individual information with broad information about the nature and treatment of depression (nomothetic data), the clinician arrived at a treatment plan for him.

Yet therapists may be influenced by additional factors when they make treatment decisions. Their treatment plans typically reflect their theoretical orientations and how they have learned to conduct therapy (Prochaska & Norcross, 2013; Sharf, 2012). As therapists apply a favored model in case after case, they become more and more familiar with its principles and treatment techniques and tend to use them in work with still other clients.

Current research may also play a role. Most clinicians say that they value research as a guide to practice (Beutler et al., 1995). However, not all of them actually read research articles, so they cannot be directly influenced by them (Rivett, 2011; Stewart & Chambless, 2007). In fact, according to surveys, therapists gather much of their information about the latest developments in the field from colleagues, professional newsletters, workshops, conferences, Web sites, books, and the like (Simon, 2011; Corrie & Callanan, 2001). Unfortunately, the accuracy and usefulness of these sources vary widely.

To help clinicians become more familiar with and apply research findings, there is an ever-growing movement in North America, the United Kingdom, and elsewhere toward **empirically supported**, or **evidence-based**, treatment (Hunsley & Lee, 2014; Pope & Wedding, 2014; Carroll, 2012). Proponents of this movement have formed task forces that seek to identify which therapies have received clear research support for each disorder, to propose corresponding treatment guidelines, and to spread such information to clinicians. Critics of the movement worry that such efforts have thus far been simplistic, biased, and at times misleading (Jager & Leek, 2013; Nairn, 2012; Weinberger & Rasco, 2007). However, the empirically supported treatment movement has been gaining considerable momentum over the past decade.

**The Effectiveness of Treatment**

Altogether, more than 400 forms of therapy are currently practiced in the clinical field (Wedding & Corsini, 2014). Naturally, the most important question to ask about each of them is whether it does what it is supposed to do. Does a particular treatment really help people overcome their psychological problems? If so, the practitioner has performed a major service for the client. On the surface, the question may seem simple. In fact, it is one of the most difficult questions for clinical researchers to answer.

The first problem is how to define “success.” If, as Franco’s therapist implies, he still has much progress to make at the conclusion of therapy, should his recovery be considered successful? The second problem is how to measure improvement (Hunsley & Lee, 2014; Lambert, 2010; Luborsky, 2004). Should researchers give
equal weight to the reports of clients, friends, relatives, therapists, and teachers? Should they use rating scales, inventories, therapy insights, observations, or some other measure?

Perhaps the biggest problem in determining the effectiveness of treatment is the variety and complexity of the treatments currently in use. People differ in their problems, personal styles, and motivations for therapy. Therapists differ in skill, experience, orientation, and personality. And therapies differ in theory, format, and setting. Because an individual’s progress is influenced by all these factors and more, the findings of a particular study will not always apply to other clients and therapists.

Proper research procedures address some of these problems. By using control groups, random assignment, matched research participants, and the like, clinicians can draw certain conclusions about various therapies. Even in studies that are well designed, however, the variety and complexity of treatment limit the conclusions that can be reached (Kazdin, 2013, 2011, 2006, 2004).

Despite these difficulties, the job of evaluating therapies must be done, and clinical researchers have plowed ahead with it. Investigators have, in fact, conducted thousands of therapy outcome studies, studies that measure the effects of various treatments. The studies typically ask one of three questions: (1) Is therapy in general effective? (2) Are particular therapies generally effective? (3) Are particular therapies effective for particular problems?

Is Therapy Generally Effective? Studies suggest that therapy often is more helpful than no treatment or than placebos. A pioneering review examined 375 controlled studies, covering a total of almost 25,000 people seen in a wide assortment of therapies (Smith, Glass, & Miller, 1980; Smith & Glass, 1977). The reviewers combined the findings of these studies by using a special statistical technique called meta-analysis. According to this analysis, the average person who received treatment was better off than 75 percent of the untreated persons (see Figure 4-4). Other meta-analyses have found similar relationships between treatment and improvement (Sharf, 2012; Bickman, 2005).

Some clinicians have concerned themselves with an important related question: Can therapy be harmful? A number of studies suggest that 5 to 10 percent of patients actually seem to get worse because of therapy (Lambert, 2010). Their

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**BETWEEN THE LINES**

The Stigma Continues

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Statement</th>
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</thead>
<tbody>
<tr>
<td>33%</td>
<td>Americans who would not seek counseling for fear of being labeled “mentally ill”</td>
</tr>
<tr>
<td>51%</td>
<td>Americans who would hesitate to see a psychotherapist if a diagnosis were required</td>
</tr>
<tr>
<td>67%</td>
<td>Americans who would not tell their employer that they were seeking mental health treatment</td>
</tr>
<tr>
<td>37%</td>
<td>Americans who would be reluctant to seek treatment because of confidentiality concerns</td>
</tr>
<tr>
<td>41%</td>
<td>Americans who believe they should be able to handle psychological problems on their own</td>
</tr>
</tbody>
</table>


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**figure 4-4**

Does therapy help? Combining participants and results from hundreds of studies, investigators have determined that the average person who receives psychotherapy improves more than do 75 percent of all untreated people with similar problems. (Information from: Prochaska & Norcross, 2013; Lambert et al., 1993; Smith et al., 1980.)
symptoms may become more intense, or they may develop new ones, such as a sense of failure, guilt, reduced self-concept, or hopelessness, because of their inability to profit from therapy (Lambert, 2010; Lambert et al., 1986; Hadley & Strupp, 1976).

Are Particular Therapies Generally Effective? The studies you have read about so far have lumped all therapies together to consider their general effectiveness. Many researchers, however, consider it wrong to treat all therapies alike. Some critics suggest that these studies are operating under a uniformity myth—a false belief that all therapies are equivalent despite differences in the therapists’ training, experience, theoretical orientations, and personalities (Good & Brooks, 2005; Kiesler, 1995, 1966).

Thus, an alternative approach examines the effectiveness of particular therapies. Most research of this kind shows each of the major forms of therapy to be superior to no treatment or to placebo treatment (Prochaska & Norcross, 2010). A number of other studies have compared particular therapies with one another and found that no one form of therapy generally stands out over all others (Luborsky et al., 2006, 2003, 2002, 1975).

If different kinds of therapy have similar successes, might they have something in common? People in the rapprochement movement have tried to identify a set of common factors, or common strategies, that may run through all effective therapies, regardless of the clinicians’ particular orientations (Sharf, 2012) (see InfoCentral on the next page). Surveys of highly successful therapists suggest, for example, that most give feedback to clients, help clients focus on their own thoughts and behavior, pay attention to the way they and their clients are interacting, and try to promote self-mastery in their clients. In short, effective therapists of any type may practice more similarly than they preach.

Are Particular Therapies Effective for Particular Problems? People with different disorders may respond differently to the various forms of therapy (Norcross & Beutler, 2014; Beutler, 2011). In an oft-quoted statement, influential clinical theorist Gordon Paul said decades ago that the most appropriate question regarding the effectiveness of therapy may be “What specific treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?” (Paul, 1967, p. 111). Researchers have investigated how effective particular therapies are at treating particular disorders, and they often have found sizable differences among the various therapies. Behavioral therapies, for example, appear to be the most effective of all in treating phobias (Antony, 2014), whereas drug therapy is the single most effective treatment for schizophrenia (Minzenberg, Yoon, & Carter, 2011).

As you read previously, studies also show that some clinical problems may respond better to combined approaches (Norcross & Beutler, 2014; Valencia et al., 2013). Drug therapy is sometimes combined with certain forms of psychotherapy, for example, to treat depression. In fact, it is now common for clients to be seen by two therapists—one of them a psychopharmacologist, a psychiatrist who primarily prescribes medications, and the other a psychologist, social worker, or other therapist who conducts psychotherapy.
The evidence-based treatment approach identifies the “specific therapies and techniques” that are most helpful for a particular disorder. In contrast, the common factors treatment approach contends that successful therapies share common components that greatly influence the outcome of therapy. Both likely contribute to the success of treatment (Hofman & Barlow, 2014; Weinberger, 2014; Laska et al., 2013).

### Common Factors

There are three kinds of common factors that help contribute to a positive treatment outcome: client factors, therapist factors, and client-therapist relationship.

#### Client Factors:
- Strongly related to positive outcome
  - High motivation
  - High involvement
- Moderately related to positive outcome
  - Positive attitude
  - Accurate expectation of what therapy will be like
  - Comfortable in close relationships
  - Good interpersonal skills
  - Nonperfectionism
  - Openness

#### Therapist Factors:
- Moderately related to positive outcome
  - Sense of well-being
  - Training and experience
  - Supervision during treatment
  - Confidence about course of therapy

#### Client-Therapist Relationship:
- Strongly related to positive outcome
  - Agreement on goals
  - Collaboration
  - Therapist empathizes with client
  - Therapist offers accurate interpretations
- Moderately related to positive outcome
  - Therapist is positive, warm, and accepting toward client
  - Therapist listens to, guides, and advises client
  - Therapist gives mostly positive feedback to client
  - Therapist manages own feelings toward client
- Modestly related to positive outcome
  - Therapist is genuine
  - Therapist discloses information about self
  - Therapist interprets relationship (a little bit)

### Evidence-Based Treatments: High Batting Averages

According to numerous studies, just about all of today’s leading treatments are highly effective for at least one psychological disorder.

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Cognitive-Behavioral Therapy</th>
<th>Behavioral Therapy</th>
<th>Mindfulness-Based Therapy</th>
<th>Short-Term Psychodynamic Therapy</th>
<th>Assertive Community Treatment</th>
<th>Biological Treatment</th>
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Despite conventional wisdom, research does not indicate that the following factors affect the outcome of therapy: the client’s gender, age, sexual orientation, or income; and the therapist’s gender, age, specific personality traits, or personal background.

### What kind of empathy do clients want from their therapist?

- Appreciates how I think: 10%
- Appreciates how I feel: 20%
- Shares personal information with me: 30%
- Is nurturing: 40%

### What do clients say is most important when choosing a therapist?

- Common factors: 52%
- Specific evidence-based techniques: 32%
- No preference: 16%
Obviously, knowledge of how particular therapies fare with particular disorders can help therapists and clients alike make better decisions about treatment (Beutler, 2011, 2002, 2000; Beutler et al., 2011) (see Figure 4-5). We will keep returning to this issue as we examine the various disorders throughout the book.

**PUTTING IT...together**

**Assessment and Diagnosis at a Crossroads**

In Chapter 3 you read that today’s leading models of abnormal behavior often differ widely in their assumptions, conclusions, and treatments. It should not surprise you, then, that clinicians also differ considerably in their approaches to assessment and diagnosis. Yet when all is said and done, no single assessment technique stands out as superior to the rest. Each of the hundreds of available tools has major limitations, and each produces at best an incomplete picture of how a person is functioning and why.

In short, the present state of assessment and diagnosis argues against relying exclusively on any one approach. That is why the majority of today’s clinicians use *batteries* of assessment tools in their work. Some of these batteries provide invaluable information and guidance, as in the assessment of Alzheimer’s disease and certain other disorders that are particularly difficult to diagnose—a development that you will read about later in the book.

Attitudes toward clinical assessment have shifted back and forth over the past several decades. Before the 1950s, assessment was a highly regarded part of clinical practice. As the number of clinical models grew during the 1960s and 1970s, however, followers of each model favored certain tools over others, and the practice of assessment became fragmented. Meanwhile, research began to reveal that a number of tools were inaccurate or inconsistent. In this atmosphere, many clinicians lost confidence in and abandoned systematic assessment and diagnosis.

Today, however, respect for assessment and diagnosis is on the rise once again. One reason for this renewal of interest is the development of more precise diagnostic criteria, as presented in the current and future editions of the DSM. Another is the drive by researchers for more rigorous tests to help them select appropriate participants for clinical studies. Still another factor is the awareness in the clinical field that certain disorders can be properly identified only after careful assessment procedures. A final factor is the growing confidence in the field that brain-scanning techniques may soon offer assessment information about a wide range of psychological disorders, not just neurological disturbances.

Along with heightened respect for assessment and diagnosis has come increased research. Indeed, today’s researchers are carefully examining every major kind of assessment tool—from projective tests to personality inventories to scanning procedures. This work is helping many clinicians perform their work with more accuracy and consistency—welcome news for people with psychological problems.

Ironically, just as today’s clinicians and researchers arerediscovering systematic assessment, rising costs and economic factors may be conspiring to discourage the use of assessment tools. As you read in Chapter 1, insurance parity and treatment coverage for people with psychological problems are expected to improve as a result of recent federal parity laws and the Affordable Care Act (see page 22).

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**BETWEEN THE LINES**

**Believe It or Not**

By a strange coincidence, Hermann Rorschach’s young schoolmates gave him the nickname Klex, a variant of the German Klecks, which means “inkblot” (Schwartz, 1993).

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**figure 4-5**

Who seeks therapy? According to surveys conducted in the United States, people who are middle-aged, female, from Western states, and highly educated are the most likely to have been in therapy at some point in their lives. (Information from: Howes, 2008; Fetto, 2002.)
However, experts are not at all clear what impact these initiatives will have on coverage for specific clinical testing procedures and observations. It is feared that such procedures will continue to receive only limited insurance support. Which forces will ultimately have a stronger influence on clinical assessment and diagnosis—promising research or economic pressure? Only time will tell.

Finally, the practice of assessment and diagnosis of psychological disorders is expected to be affected tremendously by the use of DSM-5. Will this new edition of the classification system prove to be an improvement over past systems? Will it be embraced by more clinicians? Will it unite or divide the clinical field? What impact will DSM-5 have on the use of assessment procedures? The answers to these important questions should emerge soon, as current studies reach fruition and lead to journal publications. Clearly, the practice of clinical assessment and diagnosis is currently at a crossroads.

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**SUMMING UP**

- **THE PRACTITIONER’S TASK** Clinical practitioners are interested primarily in gathering *idiographic* information about their clients. They seek an understanding of the specific nature and origins of a client’s problems through *clinical assessment and diagnosis*. p. 97

- **CLINICAL ASSESSMENT** To be useful, assessment tools must be *standardized, reliable, and valid*. Most clinical assessment methods fall into three general categories: *clinical interviews*, *tests*, and *observations*. A clinical interview permits the practitioner to interact with a client and generally get a sense of who he or she is. It may be either *unstructured* or *structured*. Types of clinical tests include *projective, personality, response, psychophysiological, neurological, neuropsychological, and intelligence* tests. Types of observation include *naturalistic observation* and *analog observation*. Practitioners also employ *self-monitoring*: clients observe themselves and record designated behaviors, feelings, or cognitions as they occur. pp. 97–113

- **DIAGNOSIS** After collecting assessment information, clinicians form a *clinical picture* and decide upon a *diagnosis*. The diagnosis is chosen from a *classification system*. The system used most widely in North America is the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, a classification system currently written by the American Psychiatric Association (APA, 2013). Most other countries rely primarily on a system called the *International Classification of Diseases (ICD)*, developed by the World Health Organization, which lists both medical and psychological disorders. pp. 113–114

- **DSM-5** The most recent version of the DSM, known as DSM-5, lists approximately 400 disorders. DSM-5 contains numerous additions and changes to the diagnostic categories, criteria, and organization found in past editions of the DSM. The reliability and validity of this revised diagnostic and classification system are currently receiving clinical review and, in some circles, criticism. pp. 115–119

- **DANGERS OF DIAGNOSIS AND LABELING** Even with trustworthy assessment data and reliable and valid classification categories, clinicians will not always arrive at the correct conclusion. They are human and so fall prey to various biases, misconceptions, and expectations. Another problem related to diagnosis is the prejudice that labels arouse, which may be damaging to the person who is diagnosed. pp. 119–120
TREATMENT The treatment decisions of therapists may be influenced by assessment information, the diagnosis, the clinician’s theoretical orientation and familiarity with research, and the state of knowledge in the field. Determining the effectiveness of treatment is difficult because therapists differ in their ways of defining and measuring success. The variety and complexity of today’s treatments also present a problem. Therapy outcome studies have led to three general conclusions: (1) people in therapy are usually better off than people with similar problems who receive no treatment; (2) the various therapies do not appear to differ dramatically in their general effectiveness; and (3) certain therapies or combinations of therapies do appear to be more effective than others for certain disorders. Some therapists currently advocate empirically supported treatment—the active identification, promotion, and teaching of those interventions that have received clear research support. pp. 120–125

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Anxiety, Obsessive-Compulsive, and Related Disorders

Tomas, a 25-year old Web designer, was afraid that he was “losing his mind.” He had always been a worrier. He worried about his health, his girlfriend, his work, his social life, his future, his finances, and so on. Would his best friend get angry at him? Was his girlfriend tiring of him? Was he investing his money wisely? Were his clients pleased with his work? But, lately, those worries had increased to an unbearable level. He was becoming consumed with the notion that something terrible was about to happen to him. Within an hour’s time, he might have intense concerns about going broke, developing cancer, losing one of his parents, offending his friends, and more. He was certain that disaster awaited him at every turn. No amount of reassurance, from himself or from others, brought relief for very long.

He started therapy with Dr. Adena Morven, a clinical psychologist. Dr. Morven immediately noticed how disturbed Tomas appeared. He looked tense and frightened and could not sit comfortably in his chair; he kept tapping his feet and jumped when he heard traffic noise from outside the office building. He kept sighing throughout the visit, fidgeting and shifting his position, and he appeared breathless while telling Dr. Morven about his difficulties.

Tomas described his frequent inability to concentrate to the therapist. When designing client Web sites, he would lose his train of thought. Less than 5 minutes into a project, he’d forget much of his overall strategy. During conversations, he would begin a sentence and then forget the point he was about to make. TV watching had become impossible. He found it almost impossible to concentrate on anything for more than 5 minutes; his mind kept drifting away from the task at hand.

To say the least, he was worried about all of this. “I’m worried about being so worried,” he told Dr. Morven, almost laughing at his own remark. At this point, Tomas expected the worst whenever he began a conversation, task, plan, or outing. If an event or interaction did in fact start to go awry, he would find himself overwhelmed with uncomfortable feelings—his heart would beat faster, his breathing would increase, and he’d sweat profusely. On some occasions, he thought he was actually having a heart attack—at the ripe old age of 25.

Typically, such physical reactions lasted but a matter of seconds. However, those few seconds felt like an eternity to Tomas. He acknowledged coming back down to earth after those feelings subsided—but, for him, “back down to earth” meant back to worrying and then worrying some more.

Dr. Morven empathized with Tomas about how upsetting this all must be. She asked him why he had decided to come into therapy now—as opposed to last year, last month, or last week. Tomas was able to pinpoint several things. First, all the worrying and anxiety seemed to be on the increase. Second, he was finding it hard to sleep. His nights were filled by tossing and turning—and, of course, more worrying. Third, he suspected that all of his worrying, physical symptoms, and lack of sleep were bad for his health. Wouldn’t they eventually lead to a major medical problem of some kind? And finally, his constant anxiety had begun to interfere with his life. Although his girlfriend and other acquaintances did not seem to realize how much he was suffering, he was growing weary of covering it all up. He found himself turning down social invitations and work opportunities more and more. He had even quit his once-beloved weekly poker game. Not that staying home helped in any real way. He wondered how much longer he could go on this way.
You don’t need to be as troubled as Tomas to experience fear and anxiety. Think about a time when your breathing quickened, your muscles tensed, and your heart pounded with a sudden sense of dread. Was it when your car almost skidded off the road in the rain? When your professor announced a pop quiz? What about when the person you were in love with went out with someone else, or your boss suggested that your job performance ought to improve? Any time you face what seems to be a serious threat to your well-being, you may react with the state of immediate alarm known as fear. Sometimes you cannot pinpoint a specific cause for your alarm, but still you feel tense and edgy, as if you expect something unpleasant to happen. The vague sense of being in danger is usually called anxiety, and it has the same features—the same increases in breathing, muscular tension, perspiration, and so forth—as fear.

Although everyday experiences of fear and anxiety are not pleasant, they often are useful. They prepare us for action—for “fight or flight”—when danger threatens. They may lead us to drive more cautiously in a storm, keep up with our reading assignments, treat our friends more sensitively, and work harder at our jobs. Unfortunately, some people suffer such disabling fear and anxiety that they cannot lead normal lives. Their discomfort is too severe or too frequent, lasts too long, or is triggered too easily. These people are said to have an anxiety disorder or a related kind of disorder.

Anxiety disorders are the most common mental disorders in the United States (Hollander & Simeon, 2011). In any given year around 18 percent of the adult population suffer from one or another of the anxiety disorders identified by DSM-5, while close to 29 percent of all people develop one of the disorders at some point in their lives (Kessler et al., 2012, 2010, 2009; Daitch, 2011). Only around one-fifth of these individuals seek treatment (Wang et al., 2005).

People with generalized anxiety disorder experience general and persistent feelings of worry and anxiety. People with specific phobias have a persistent and irrational fear of a particular object, activity, or situation. People with agoraphobia fear traveling to public places such as stores or movie theaters. Those with social anxiety disorder are intensely afraid of social or performance situations in which they may become embarrassed. And people with panic disorder have recurrent attacks of terror. Most individuals with one anxiety disorder suffer from a second one as well (Leyfer et al., 2013; Merikangas & Swanson, 2010) (see Figure 5-1). Tomas, for example, has the excessive worry found in generalized anxiety disorder and the repeated attacks of terror that mark panic disorder. In addition, many of those with an anxiety disorder also experience depression (Starr et al., 2014).

Anxiety also plays a major role in a different group of problems, called obsessive-compulsive and related disorders. People with these disorders feel overrun by recurrent thoughts that cause anxiety or by the need to perform certain repetitive actions to reduce anxiety. Because anxiety is so prominent in these disorders, they will be examined in this chapter along with the anxiety disorders.

**Generalized Anxiety Disorder**

People with generalized anxiety disorder experience excessive anxiety under most circumstances and worry about practically anything. In fact, their problem is sometimes described as free-floating anxiety. Like the young Web designer Tomas, they typically feel restless, keyed up, or on edge; tire easily; have difficulty concentrating; suffer from muscle tension; and have sleep problems (see Table 5-1). The symptoms last at least 6 months (APA, 2013). Nevertheless, most people with the disorder are able, although with some difficulty, to carry on social relationships and job activities.
Generalized anxiety disorder is common in Western society. Surveys suggest that as much as 4 percent of the U.S. population has the symptoms of this disorder in any given year, a rate that holds across Canada, Britain, and other Western countries (Kessler et al., 2012, 2010, 2005; Ritter, Blackmore, & Heimberg, 2010). Altogether, more than 6 percent of all people develop generalized anxiety disorder sometime during their lives. It may emerge at any age, but usually it first appears in childhood or adolescence. Women diagnosed with the disorder outnumber men 2 to 1. Around one-quarter of the people who have generalized anxiety disorder are currently in treatment (NIMH, 2011; Wang et al., 2005).

A variety of factors have been cited to explain the development of this disorder. Here you will read about the views and treatments offered by the sociocultural, psychodynamic, humanistic, cognitive, and biological models. We will examine the behavioral perspective when we turn to phobias later in the chapter because that model approaches generalized anxiety disorder and phobias in basically the same way.

### The Sociocultural Perspective: Societal and Multicultural Factors

According to sociocultural theorists, generalized anxiety disorder is most likely to develop in people who are faced with ongoing societal conditions that are dangerous. Studies have found that people in highly threatening environments are indeed more likely to develop the general feelings of tension, anxiety, and fatigue and the sleep disturbances found in this disorder (Slopen et al., 2012; Stein & Williams, 2010).

Take, for example, a classic study that was done on the psychological impact of living near the Three Mile Island nuclear power plant after the nuclear reactor accident of March 1979 (Baum et al., 2004; Wroble & Baum, 2002). In the months following the accident, local mothers of preschool children were found to display five times as many anxiety or depression disorders as mothers living elsewhere. Although the number of disorders decreased during the next year, the Three Mile Island mothers still displayed high levels of anxiety or depression a year later.

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**The role of society**

Bishop Richard Garcia hugs the father of a 6-year-old child who was killed by a stray bullet fired by gang members outside his house. People who live in dangerous environments experience greater anxiety and have a higher rate of generalized anxiety disorder than those who live in other settings.

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### Dx Checklist

**Generalized Anxiety Disorder**

1. For 6 months or more, person experiences disproportionate, uncontrollable, and ongoing anxiety and worry about multiple matters.

2. The symptoms include at least three of the following: edginess, fatigue, poor concentration, irritability, muscle tension, sleep problems.

3. Significant distress or impairment.

Similarly, studies conducted more recently have found that in the months and years following Hurricane Katrina in 2005 and the Haitian earthquake in 2010, the rate of generalized and other anxiety disorders was twice as high among area residents who lived through the disasters as among unaffected persons living elsewhere (Shultz et al., 2012; Galea et al., 2007).

One of the most powerful forms of societal stress is poverty. People without financial means are likely to live in rundown communities with high crime rates, have fewer educational and job opportunities, and run a greater risk for health problems (Moore, Radcliffe, & Liu, 2014; López & Guarnaccia, 2008, 2005, 2000). As sociocultural theorists would predict, such people also have a higher rate of generalized anxiety disorder (McLaughlin et al., 2012; Stein & Williams, 2010). In the United States, the rate is almost twice as high among people with low incomes as among those with higher incomes (Sareen et al., 2011; Kessler et al., 2010, 2005). As wages decrease, the rate of generalized anxiety disorder steadily increases (see Table 5-2).

Since race is closely tied to stress in the United States (related to discrimination, low income, and reduced job opportunities), it is not surprising that it too is sometimes tied to the prevalence of generalized anxiety disorder (Sibrava et al., 2013; Marques et al., 2011; Soto et al., 2011). In any given year, African Americans are 30 percent more likely than white Americans to suffer from this disorder. Moreover, although researchers have not consistently found a heightened rate of generalized anxiety disorder among Hispanic Americans, they have noted that many Hispanics in both the United States and Latin America suffer from nervios (“nerves”), a culture-bound disorder that bears great similarity to generalized anxiety disorder (López & Guarnaccia, 2005, 2000; APA, 2000). People with nervios experience enormous emotional distress, somatic symptoms such as headaches and stomachaches, so-called brain aches marked by poor concentration and nervousness, and symptoms of irritability, tearfulness, and trembling.

Although poverty and various societal and cultural pressures may help create a climate in which generalized anxiety disorder is more likely to develop, sociocultural variables are not the only factors at work. After all, most people in poor or dangerous environments do not develop this disorder. Even if sociocultural factors play a broad role, theorists still must explain why some people develop the

<table>
<thead>
<tr>
<th>Eye on Culture:</th>
<th>Prevalence of Anxiety Disorders and Obsessive-Compulsive Disorder (Compared with Rate in Total Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>Higher</td>
</tr>
<tr>
<td>Specific phobias</td>
<td>Higher</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>Higher</td>
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<tr>
<td>Social anxiety disorder</td>
<td>Higher</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>Higher</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>Same</td>
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</tbody>
</table>

Information from: Polo et al., 2011; Sareen et al., 2011; Bharani & Lantz, 2008; Hopko et al., 2008; Nazarian & Craske, 2008; Schultz et al., 2008.
disorder and others do not. The psychodynamic, humanistic-existential, cognitive, and biological schools of thought have all tried to explain why and have offered corresponding treatments.

The Psychodynamic Perspective
Sigmund Freud (1933, 1917) believed that all children experience some degree of anxiety as part of growing up and that all use ego defense mechanisms to help control such anxiety (see pages 63–65). Children feel realistic anxiety when they face actual danger; neurotic anxiety when they are repeatedly prevented, by parents or by circumstances, from expressing their id impulses; and moral anxiety when they are punished or threatened for expressing their id impulses. According to Freud, some children have particularly high levels of such anxiety, or their defense mechanisms are particularly inadequate, and these individuals may develop generalized anxiety disorder.

Psychodynamic Explanations: When Childhood Anxiety Goes Unresolved
According to Freud, when a child is overrun by neurotic or moral anxiety, the stage is set for generalized anxiety disorder. Early developmental experiences may produce an unusually high level of anxiety in such a child. Say that a boy is spanked every time he cries for milk as an infant, messes his pants as a 2-year-old, and explores his genitals as a toddler. He may eventually come to believe that his various id impulses are very dangerous, and he may feel overwhelming anxiety whenever he has such impulses.

Alternatively, a child’s ego defense mechanisms may be too weak to cope with even normal levels of anxiety. Overprotected children, shielded by their parents from all frustrations and threats, have little opportunity to develop effective defense mechanisms. When they face the pressures of adult life, their defense mechanisms may be too weak to cope with the resulting anxieties.

Today’s psychodynamic theorists often disagree with specific aspects of Freud’s explanation for generalized anxiety disorder. Most continue to believe, however, that the disorder can be traced to inadequacies in the early relationships between children and their parents (Sharf, 2012). Researchers have tested the psychodynamic explanations in various ways. In one strategy, they have tried to show that people with generalized anxiety disorder are particularly likely to use defense mechanisms. For example, one team of investigators examined the early therapy transcripts of patients with this diagnosis and found that the patients often reacted defensively. When asked by therapists to discuss upsetting experiences, they would quickly forget (repress) what they had just been talking about, change the direction of the discussion, or deny having negative feelings (Luborsky, 1973).

In another line of research, investigators have studied people who as children suffered extreme punishment for id impulses. As psychodynamic theorists would predict, these people have higher levels of anxiety later in life (Busch, Milrod, & Shear, 2010; Chiu, 1971). In addition, several studies have supported the psychodynamic position that extreme protectiveness by parents may often lead to high levels of anxiety in their children (Manfredi et al., 2011; Jenkins, 1968).
Although these studies are consistent with psychodynamic explanations, some scientists question whether they show what they claim to show. When people have difficulty talking about upsetting events early in therapy, for example, they are not necessarily repressing those events. They may be focusing purposely on the positive aspects of their lives, or they may be too embarrassed to share personal negative events until they develop trust in the therapist.

**Psychodynamic Therapies** Psychodynamic therapists use the same general techniques to treat all psychological problems: free association and the therapist’s interpretations of transference, resistance, and dreams. Freudian psychodynamic therapists use these methods to help clients with generalized anxiety disorder become less afraid of their id impulses and more successful in controlling them. Other psychodynamic therapists, particularly object relations therapists, use them to help anxious patients identify and settle the childhood relationship problems that continue to produce anxiety in adulthood (Lucas, 2006).

Controlled studies have typically found psychodynamic treatments to be of only modest help to persons with generalized anxiety disorder (Craske, 2010). An exception to this trend is short-term psychodynamic therapy (see Chapter 3), which has in some cases significantly reduced the levels of anxiety, worry, and social difficulty of patients with this disorder (Bressi et al., 2014; Salzer et al., 2011; Crits-Christoph et al., 2005, 2004).

**The Humanistic Perspective**

Humanistic theorists propose that generalized anxiety disorder, like other psychological disorders, arises when people stop looking at themselves honestly and acceptingly. Repeated denials of their true thoughts, emotions, and behavior make these people extremely anxious and unable to fulfill their potential as human beings.

The humanistic view of why people develop this disorder is best illustrated by Carl Rogers’ explanation. As you saw in Chapter 3, Rogers believed that children who fail to receive unconditional positive regard from others may become overly critical of themselves and develop harsh self-standards, what Rogers called conditions of worth. They try to meet these standards by repeatedly distorting and denying their true thoughts and experiences. Despite such efforts, however, threatening self-judgments keep breaking through and causing them intense anxiety. This onslaught of anxiety sets the stage for generalized anxiety disorder or some other form of psychological dysfunctioning.

Practitioners of Rogers’s treatment approach, client-centered therapy (also called person-centered therapy), try to show unconditional positive regard for their clients and to empathize with them. The therapists hope that an atmosphere of genuine acceptance and caring will help clients feel secure enough to recognize their true needs, thoughts, and emotions. When clients eventually are honest and comfortable with themselves, their anxiety or other symptoms will subside. In the following excerpt, Rogers describes the progress made by a client with anxiety and related symptoms:

> Therapy was an experiencing of her self, in all its aspects, in a safe relationship . . . the experiencing of self as having a capacity for wholeness . . . a self that cared about others. This last followed . . . the realization that the therapist cared, that it really mattered to him how therapy turned out for her, that he really valued her. . . . She gradually became aware of the fact that . . . there was nothing fundamentally bad, but rather, at heart she was positive and sound.

(Rogers, 1954, pp. 261–264)
Despite such optimistic case reports, controlled studies have failed to offer strong support for this approach. Although research does suggest that client-centered therapy is usually more helpful to anxious clients than no treatment, the approach is only sometimes superior to placebo therapy (Prochaska & Norcross, 2013, 2006, 2003). In addition, researchers have found, at best, only limited support for Rogers’ explanation of generalized anxiety disorder and other forms of abnormal behavior. Nor have other humanistic theories and treatment received much research support.

The Cognitive Perspective
Followers of the cognitive model suggest that psychological problems are often caused by dysfunctional ways of thinking (see PsychWatch on the next page). Given that excessive worry—a cognitive symptom—is a key characteristic of generalized anxiety disorder (see Figure 5-2), it is not surprising that cognitive theorists have had much to say about the causes of and treatments for this particular disorder.

Maladaptive Assumptions Initially, cognitive theorists suggested that generalized anxiety disorder is primarily caused by maladaptive assumptions, a notion that continues to be influential. Albert Ellis, for example, proposed that many people are guided by irrational beliefs that lead them to act and react in inappropriate ways (Ellis, 2014, 2002, 1962). Ellis called these basic irrational assumptions, and he claimed that people with generalized anxiety disorder often hold the following ones:

“It is a dire necessity for an adult human being to be loved or approved of by virtually every significant other person in his community.”

“It is awful and catastrophic when things are not the way one would very much like them to be.”

“If something is or may be dangerous or fearsome, one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.”

“One should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.”

(Ellis, 1962)

When people who make these assumptions are faced with a stressful event, such as an exam or a first date, they are likely to interpret it as dangerous, to overreact, and to feel fear. As they apply the assumptions to more and more events, they may begin to develop generalized anxiety disorder.

Similarly, cognitive theorist Aaron Beck argued that people with generalized anxiety disorder constantly hold silent assumptions (for example, “A situation or a person is unsafe until proven to be safe” or “It is always best to assume the worst”) that imply they are in imminent danger (Clark & Beck, 2012, 2010; Beck & Emery, 1985). Since the time of Ellis’ and Beck’s initial proposals, researchers have repeatedly found that people with generalized anxiety disorder do indeed hold maladaptive assumptions, particularly about dangerousness (Clark & Beck, 2012, 2010; Ferreri et al., 2011).

New-Wave Cognitive Explanations In recent years, several new explanations for generalized anxiety disorder, sometimes called the new-wave cognitive explanations, have emerged. Each of them builds on the work of Ellis and Beck and their emphasis on danger.
The metacognitive theory, developed by the researcher Adrian Wells (2014, 2011, 2005), suggests that people with generalized anxiety disorder implicitly hold both positive and negative beliefs about worrying. On the positive side, they believe that worrying is a useful way of appraising and coping with threats in life. And so they look for and examine all possible signs of danger—that is, they worry constantly.

At the same time, Wells argues, people with generalized anxiety disorder also hold negative beliefs about worrying, and these negative attitudes are the ones that open the door to the disorder. Because society teaches them that worrying is a bad thing, they come to believe that their repeated

PsychWatch

Fears, Shmears: The Odds Are Usually on Our Side

People with anxiety disorders have many unreasonable fears, but millions of other people, too, worry about disaster every day. Most of the catastrophes they fear are not probable. Perhaps the ability to live by laws of probability rather than possibility is what separates the fearless from the fearful.

What are the odds, then, that commonly feared events will happen? The range of probability is wide, but the odds are usually heavily in our favor.

A city resident will be a victim of a violent crime: 1 in 237
A suburbanite will be a victim of a violent crime: 1 in 408
A child will suffer a high-chair injury this year: 1 in 6,000

The IRS will audit you this year: 1 in 100
You will be murdered this year: 1 in 20,000
You will be a victim of burglary this year: 1 in 35
You will be a victim of robbery this year: 1 in 885
You will be killed on your next bus ride: 1 in 500 million
You will be hit by a baseball at a major-league game: 1 in 42,000
You will drown in the tub this year: 1 in 685,000
Your house will have a fire this year: 1 in 200
Your carton will contain a broken egg: 1 in 10

You will develop a tooth cavity: 1 in 6
You will contract AIDS from a blood transfusion: 1 in 286,000
You will die in a tsunami: 1 in 500,000
You will be attacked by a shark: 1 in 4 million
You will receive a diagnosis of cancer this year: 1 in 8,000
A woman will develop breast cancer during her lifetime: 1 in 8
A piano player will eventually develop lower back pain: 1 in 3
You will be killed on your next automobile outing: 1 in 4 million
Condom use will eventually fail to prevent pregnancy: 1 in 8
An IUD will eventually fail to prevent pregnancy: 1 in 167
Coitus interruptus will eventually fail to prevent pregnancy: 1 in 5
You will die as a result of a lightning strike: 1 in 10 million


Watch out! The statistical chance of being hit by a foul ball at a major-league baseball game is 1 in 42,000. But try telling that to these fans.
worrying is in fact harmful (mentally and physically) and uncontrollable. Now they further worry about the fact that they always seem to be worrying (so-called meta-worries) (see Table 5-3). The net effect of all this worrying: generalized anxiety disorder.

This explanation has received considerable research support. Studies indicate, for example, that people who generally hold both positive and negative beliefs about worrying are particularly prone to developing generalized anxiety disorder and that repeated metaworrying is a powerful predictor of developing the disorder (Wells, 2014, 2011, 2005; Ferreri et al., 2011).

According to another new explanation for generalized anxiety disorder, the intolerance of uncertainty theory, certain individuals cannot tolerate the knowledge that negative events may occur, even if the possibility of occurrence is very small. Inasmuch as life is filled with uncertain events, these individuals worry constantly that such events are about to occur. Such intolerance and worrying leave them highly vulnerable to the development of generalized anxiety disorder (Dugas et al., 2012, 2010, 2004; Fisher & Wells, 2011). Think of when you meet someone you’re attracted to and how you then feel prior to texting or calling call him or her for the first time—or how you feel while you’re waiting for that person to contact you for the first time. The worry that you experience in such instances—the sense of sometimes unbearable uncertainty over the possibility of an unacceptable negative outcome—is, according to this theory, how people with generalized anxiety disorder feel all the time.

Proponents of this theory believe people with generalized anxiety disorder keep worrying and worrying in their efforts to find “correct” solutions for various situations in their lives and to restore certainty to the situations. However, because they can never really be sure that a given solution is a correct one, they are always left to grapple with intolerable levels of uncertainty, triggering new rounds of worrying and new efforts to find correct solutions. Like the metacognitive theory of worry, considerable research supports this theory. Studies have found, for example, that people with generalized anxiety disorder display higher levels of intolerance of uncertainty than people with normal degrees of anxiety (Dugas et al., 2012, 2010, 2009, 2002; Daitch, 2011).

Finally, a third new explanation for generalized anxiety disorder, the avoidance theory, developed by researcher Thomas Borkovec, suggests that people with this disorder have greater bodily arousal (higher heart rate, perspiration, respiration) than other people and that worrying actually serves to reduce this arousal, perhaps by distracting the individuals from their unpleasant physical feelings (Newman et al., 2011; Borkovec, Alcaine, & Behar, 2004). In short, the avoidance theory holds that people with generalized anxiety disorder worry repeatedly in order to reduce or avoid uncomfortable states of bodily arousal. When, for example, they find themselves in an uncomfortable job situation or social relationship, they implicitly choose to intellectualize (that is, worry about) losing their job or losing their friend rather than having to stew in a state of intense negative arousal. The worrying serves as a quick, though ultimately maladaptive, way of coping with unpleasant bodily states.

Borkovec’s explanation has also been supported by numerous studies. Research reveals that people with generalized anxiety disorder experience particularly fast and intense bodily reactions, find such reactions overwhelming and unpleasant, worry more than other people upon becoming aroused, and successfully reduce their arousal whenever they worry (Hirsch et al., 2012; Aldao & Mennim, 2012; Fisher & Wells, 2011).

**Table 5-3**

<table>
<thead>
<tr>
<th>Worry-free workers</th>
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<tbody>
<tr>
<td>This famous Bill Jones motivational poster, displayed in workplaces throughout the United States in the 1920s, reflects the view of today’s new-wave cognitive theorists—that worrying is a dysfunctional process that can be brought under control.</td>
</tr>
</tbody>
</table>

**Worry-free workers**

Worrying About Worrying: Items from the Meta-Worry Questionnaire

- I am going crazy with worry.
- My worrying will escalate and I’ll cease to function.
- I’m making myself ill with worry.
- I’m abnormal for worrying.
- My mind can’t take the worrying.
- I’m losing out in life because of worrying.
- My body can’t take the worrying.

Cognitive Therapies Two kinds of cognitive approaches are used in cases of generalized anxiety disorder. In one, based on the pioneering work of Ellis and Beck, therapists help clients change the maladaptive assumptions that characterize their disorder. In the other, new-wave cognitive therapists help clients to understand the special role that worrying may play in their disorder and to change their views about and reactions to worrying.

### CHANGING MALADAPTIVE ASSUMPTIONS

In Ellis’ technique of *rational-emotive therapy*, therapists point out the irrational assumptions held by clients, suggest more appropriate assumptions, and assign homework that gives the clients practice at challenging old assumptions and applying new ones (Ellis, 2014, 2008, 2005). Studies suggest that this approach and similar cognitive approaches bring at least modest relief to those suffering from generalized anxiety (Clark & Beck, 2012, 2010). Ellis’ approach is illustrated in the following discussion between him and an anxious client who fears failure and disapproval at work, especially over a testing procedure that she has developed for her company:

---

**Client:** I'm so distraught these days that I can hardly concentrate on anything for more than a minute or two at a time. My mind just keeps wandering to that damn testing procedure I devised, and that they've put so much money into; and whether it's going to work well or be just a waste of all that time and money. . . .

**Ellis:** Point one is that you must admit that you are telling yourself something to start your worrying going, and you must begin to look, and I mean really look, for the specific nonsense with which you keep reindoctrinating yourself. . . . The false statement is: “If, because my testing procedure doesn’t work and I am functioning inefficiently on my job, my co-workers do not want me or approve of me, then I shall be a worthless person.” . . .

**Client:** But if I want to do what my firm also wants me to do, and I am useless to them, aren’t I also useless to me?

**Ellis:** No—not unless you think you are. You are frustrated, of course, if you want to set up a good testing procedure and you can’t. But need you be desperately unhappy because you are frustrated? And need you deem yourself completely unworthy because you can’t do one of the main things you want to do in life?

---

(Ellis, 1962, pp. 160–165)

### BREAKING DOWN WORRYING

Alternatively, some of today’s new-wave cognitive therapists specifically guide clients with generalized anxiety disorder to recognize and change their dysfunctional use of worrying (Wells, 2014, 2010; Newman et al., 2011; Ritter et al., 2010). They begin by educating the clients about the role of worrying in their disorder and have them observe their bodily arousal and cognitive responses across various life situations. In turn, the clients come to appreciate the triggers of their worrying, their misconceptions about worrying, and their misguided efforts to control their lives by worrying. As their insights grow, clients are expected to see the world as less threatening (and so less arousing), try out more constructive ways of dealing with arousal, and worry less about the fact that they worry so much. Research has begun to indicate that a concentrated focus on worrying is indeed a helpful addition to the traditional cognitive treatment for generalized anxiety disorder (Wells, 2014, 2011, 2010; Ritter et al., 2010).

Treating individuals with generalized anxiety disorder by helping them to recognize their inclination to worry is similar to another cognitive approach that has
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gained popularity in recent years. The approach, *mindfulness-based cognitive therapy*, was developed by psychologist Steven Hayes and his colleagues as part of their broader treatment approach called *acceptance and commitment therapy* (Roemer & Orsillo, 2014; Hayes et al., 2013; Hayes & Lillis, 2012). Here therapists help clients to become aware of their streams of thoughts, including their worries, as they are occurring and to *accept* such thoughts as mere events of the mind. By accepting their thoughts rather than trying to eliminate them, the clients are expected to be less upset and affected by them.

Mindfulness-based cognitive therapy has also been applied to a range of other psychological problems, such as depression, posttraumatic stress disorder, personality disorders, and substance use disorders, often with promising results (Roemer & Orsillo, 2014; Hayes et al., 2013). As you’ll see in the next chapter, this cognitive approach borrows heavily from a form of meditation called *mindfulness meditation*, which teaches people to pay attention to the thoughts and feelings that flow through their mind during meditation and to accept such thoughts in a nonjudgmental way (See *InfoCentral* on the next page).

The Biological Perspective

Biological theorists believe that generalized anxiety disorder is caused chiefly by biological factors. For years this claim was supported primarily by *family pedigree studies*, in which researchers determine how many and which relatives of a person with a disorder have the same disorder. If biological tendencies toward generalized anxiety disorder are inherited, people who are biologically related should have similar probabilities of developing this disorder. Studies have in fact found that biological relatives of persons with generalized anxiety disorder are more likely than nonrelatives to have the disorder also (Schienle et al., 2011; Domschke & Deckert, 2010). Approximately 15 percent of the relatives of people with the disorder display it themselves—a much higher prevalence rate than that found in the general population. And the closer the relative (an identical twin, for example), the greater the likelihood that he or she will also have the disorder.

Of course, investigators cannot have full confidence in biological interpretations of such findings. Because relatives are likely to share aspects of the same environment, their shared disorders may reflect similarities in environment and upbringing rather than similarities in biological makeup. And, indeed, the closer the relatives, the more similar their environmental experiences are likely to be. Because identical twins are more physically alike than fraternal twins, they may even have more similarities in their upbringing.

**Biological Explanations: GABA Inactivity** In recent decades, important discoveries by brain researchers have offered clearer evidence that generalized anxiety disorder is related to biological factors (Bergado-Acosta et al., 2014; Craig & Chamberlain, 2010; Martin & Nemeroff, 2010). One of the first such discoveries was made in the 1950s, when researchers determined that *benzodiazepines*, the family of drugs that includes *alprazolam* (Xanax), *lorazepam* (Ativan), and *diazepam* (Valium), provide relief from anxiety. At first, no one understood why benzodiazepines reduce anxiety. Eventually, however, the development of radioactive techniques enabled researchers to pinpoint the exact sites in the brain that are affected...
Over the past decade, mindfulness has become one of the most common terms in psychology. Mindfulness involves being in the present moment, intentionally and nonjudgmentally. Mindfulness training programs use mindfulness meditation techniques to help treat people suffering from pain, anxiety disorders, and depressive disorders, as well as a variety of other psychological disorders.

**MINDFULNESS TRAINING PROGRAMS**
- Have the goal of achieving a state of intentional, non-judgmental attention on the present.
  - attention to body sensations
  - attention to breathing sensations
  - attention to wandering and busy thoughts
  - simple yoga
  - homework assignments (practice and journal keeping)

- Help treat other disorders, including:
  - pain conditions
  - PTSD and other stress disorders
  - depressive disorders
  - obsessive-compulsive disorder
  - substance use disorders
  - borderline personality disorder

**RESEARCH-SUPPORTED EFFECTS OF MINDFULNESS**
- improve control over anxiety and related emotions (amygdala)
- promote more peaceful sleep
- improve functioning of the autonomic nervous system
- produce alpha rhythm brain waves tied to an alert, but non-anxious, mental state
- improve functioning of the thalamus, which heightens sensory signaling and consciousness

**MINDFUL LIFE STRATEGIES**
- Practice mindful breathing for 5 to 30 minutes each morning—notice how you feel before starting the day.
- Take regular breaks from sitting at your desk, synchronizing your breathing with your steps.
- Take a slow 10-minute walk, synchronizing your breathing with your steps.
- Choose an object in your environment and observe it carefully for 60 seconds.
- Unplug from technology periodically throughout the day.
- Eat lunch slowly, savoring every bite and body sensation.
- Choose an object in your environment and observe it carefully for 60 seconds.
- Take a slow 10-minute walk, synchronizing your breathing with your steps.
- At the end of the day, reflect about the day, without judgment.

**Why Do People Seek Out Mindfulness?**
“Cell phones, texting, social networking, emailing, etc., easily distract me from what I’m doing.”

**Percentage of the U.S. population that practice mindfulness meditation techniques**
- Total Adults: 47%
- Millennials: 61%
- Gen Xers: 46%
- Boomers: 32%

**Number of medical schools in North America that teach mindfulness**
- >100

**Number of scientific papers and books on mindfulness**
- 9,300

**Amount that U.S. adults spend on mindfulness programs each year**
- $8 billion

**Number of certified instructors around the world in mindfulness-based stress reduction**
- 1,000

**Number of certified instructors around the world in mindfulness-based stress reduction**
- 1,000

- lower stress
- improve decision-making under stress (frontal cortex)
- heighten attention (basal ganglia)
- improve working memory and verbal reasoning (frontal cortex and hippocampus)
- improve functioning of the immune system
- increase enjoyment and experience of music
- decrease feelings of loneliness among elderly people
by benzodiazepines (Mohler & Okada, 1977). Apparently certain neurons have receptors that receive the benzodiazepines, just as a lock receives a key.

Investigators soon discovered that these benzodiazepine receptors ordinarily receive gamma-aminobutyric acid (GABA), a common neurotransmitter in the brain. As you read in Chapter 3, neurotransmitters are chemicals that carry messages from one neuron to another. GABA carries inhibitory messages: when GABA is received at a receptor, it causes the neuron to stop firing.

On the basis of such findings, biological researchers eventually pieced together several scenarios of how fear reactions may occur. A leading one began with the notion that in normal fear reactions, key neurons throughout the brain fire more rapidly, triggering the firing of still more neurons and creating a general state of excitability throughout the brain and body. Perspiration, breathing, and muscle tension increase. This state is experienced as fear or anxiety. Continuous firing of neurons eventually triggers a feedback system—that is, brain and body activities that reduce the level of excitability. Some neurons throughout the brain release the neurotransmitter GABA, which then binds to GABA receptors on certain neurons and instructs those neurons to stop firing. The state of excitability ceases, and the experience of fear or anxiety subsides (Atack, 2010; Ator, 2005; Costa, 1985, 1983).

Some researchers have concluded that a malfunction in this feedback system can cause fear or anxiety to go unchecked (Bremner & Charney, 2010; Roy-Byrne, 2005). In fact, when investigators reduced GABA’s ability to bind to GABA receptors, they found that animal subjects reacted with a rise in anxiety (Costa, 1985; Mohler et al., 1981). This finding suggested that people with generalized anxiety disorder might have ongoing problems in their anxiety feedback system. Perhaps they have too few GABA receptors, or perhaps their GABA receptors do not readily capture the neurotransmitter.

This explanation continues to have many supporters, but it is also problematic. First, according to recent biological discoveries, other neurotransmitters may also play important roles in anxiety and generalized anxiety disorder, either acting alone or in conjunction with GABA (Baldwin et al., 2013; Martin & Nemeroff, 2010; Burijon, 2007). Second, biological theorists are faced with the problem of establishing a causal relationship. The abnormal GABA responses of anxious persons may be the result, rather than the cause, of their anxiety disorders. Perhaps long-term anxiety eventually leads to poorer GABA reception, for example.

In fact, research conducted in recent years indicates that the root of generalized anxiety disorder is probably more complicated than the activity of a single neurotransmitter or group of neurotransmitters. Researchers have determined, for example, that emotional reactions of various kinds are tied to brain circuits—networks of brain structures that work together, triggering each other into action with the help of neurotransmitters and producing a particular kind of emotional reaction. It turns out that the circuit that produces anxiety reactions includes the prefrontal cortex; the anterior cingulate cortex; and the amygdala, a small almond-shaped brain structure that usually starts the emotional ball rolling. Recent studies suggest that this circuit often functions improperly in people with generalized anxiety disorder (Lang, McTeague, & Bradley, 2014; Schienle et al., 2011; McClure et al., 2007) (see Figure 5-3).
Biological Treatments  The leading biological treatment for generalized anxiety disorder is **drug therapy** (see Table 5-4). Other biological interventions are **relaxation training** and **biofeedback**.

**ANTIANXIETY DRUG THERAPY**  In the late 1950s, benzodiazepines were originally marketed as **sedative-hypnotic drugs**—drugs that calm people in low doses and help them fall asleep in higher doses. These new antianxiety drugs seemed less addictive than previous sedative-hypnotic medications, such as **barbiturates**, and they appeared to produce less tiredness. Thus, they were quickly embraced by both doctors and patients.

Only years later did investigators come to understand the reasons for the effectiveness of benzodiazepines. As you have read, researchers eventually learned that there are specific neuron sites in the brain that receive benzodiazepines and that these same receptor sites ordinarily receive the neurotransmitter GABA. Apparently, when benzodiazepines bind to these neuron receptor sites, particularly those receptors known as **GABA-A receptors**, they increase the ability of GABA to bind to them as well, and so improve GABA’s ability to stop neuron firing and reduce anxiety (Griebel & Holmes, 2013; Treit, Engin, & McEown, 2010; Dawson et al., 2005).

Studies indicate that benzodiazepines often provide relief for people with generalized anxiety disorder (Islam et al., 2014; Hadley et al., 2012). However, clinicians have come to realize the potential dangers of these drugs. First, for many people, when the medications are stopped, anxiety returns as strong as ever. Second, we now know that people who take benzodiazepines in large doses for an extended time can become physically dependent on them. Third, the drugs can produce undesirable effects such as drowsiness, lack of coordination, memory loss, depression, and aggressive behavior. Finally, the drugs mix badly with certain other drugs or substances. If, for example, people on benzodiazepines drink even small amounts of alcohol, their breathing can slow down dangerously (Chollet et al., 2013).

In recent decades, still other kinds of drugs have become available for people with generalized anxiety disorder. In particular, it has been discovered that a number of **antidepressant** medications, drugs that are usually used to lift the moods of depressed persons, and **antipsychotic** medications, drugs commonly given to people who lose touch with reality, are also helpful to many people with generalized anxiety disorder. In fact, a number of today’s clinicians are more inclined to prescribe antidepressants or antipsychotics to treat generalized anxiety disorder than the GABA-enhancing benzodiazepines (Chollet et al., 2013; Comer et al., 2011).

**RELAXATION TRAINING**  A nonchemical biological technique commonly used to treat generalized anxiety disorder is **relaxation training**. The notion behind this approach is that physical relaxation will lead to a state of psychological relaxation. In one version, therapists teach clients to identify individual muscle groups, tense them, release the tension, and ultimately relax the whole body. With continued practice, they can bring on a state of deep muscle relaxation at will, reducing their state of anxiety.

Research indicates that relaxation training is more effective than no treatment or placebo treatment in cases of generalized anxiety disorder (Hayes-Skelton et al., 2013). The improvement it produces, however, tends to be modest (Leahy, 2004), and other techniques that are known

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**Table: 5-4**

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Trade Name(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam</td>
<td>Xanax, Xanax XR</td>
</tr>
<tr>
<td>Bromazepam</td>
<td>Lectopam, Lexotan, Bromaze</td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>Librium</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>Klonopin</td>
</tr>
<tr>
<td>Clorazepate</td>
<td>Tranxene</td>
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<tr>
<td>Diazepam</td>
<td>Valium</td>
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<tr>
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<td>ProSom</td>
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<tr>
<td>Flunitrazepam</td>
<td>Rohypnol</td>
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<tr>
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<td>Dalmadorm, Dalmane</td>
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<td>Lorazepam</td>
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<td>Versed</td>
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<td>Nitrazepam</td>
<td>Mogadon, Alodorm, Pacisyn, Dumolid</td>
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<td>Lysanxia, Centrax</td>
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<td>Doral</td>
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<td>Temazepam</td>
<td>Restoril</td>
</tr>
<tr>
<td>Triazolam</td>
<td>Halcion</td>
</tr>
</tbody>
</table>

**Why are antianxiety drugs so popular in today’s world? Does their popularity say something about our society?**

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**sedative-hypnotic drugs**  Drugs that calm people at lower doses and help them to fall asleep at higher doses.

**relaxation training**  A treatment procedure that teaches clients to relax at will so they can calm themselves in stressful situations.

**biofeedback**  A technique in which a client is given information about physiological reactions as they occur and learns to control the reactions voluntarily.

**electromyograph (EMG)**  A device that provides feedback about the level of muscular tension in the body.
to relax people, such as basic meditation, often seem to be equally effective (Bourne et al., 2004). Relaxation training is of greatest help to people with generalized anxiety disorder when it is combined with cognitive therapy or with biofeedback (Cuijpers et al., 2014; Lang, 2004).

**BIOFEEDBACK** In biofeedback, therapists use electrical signals from the body to train people to control physiological processes such as heart rate or muscle tension. Clients are connected to a monitor that gives them continuous information about their bodily activities. By attending to the signals from the monitor, they may gradually learn to control even seemingly involuntary physiological processes.

The most widely applied method of biofeedback for the treatment of anxiety uses a device called an **electromyograph (EMG)**, which provides feedback about the level of muscular tension in the body. Electrodes are attached to the client’s muscles—usually the forehead muscles—where they detect the minute electrical activity that accompanies muscle tension (see Figure 5-4). The device then converts the electric energy, or **potentials**, coming from the muscles into an image, such as lines on a screen, or into a tone whose pitch changes along with changes in muscle tension. Thus clients “see” or “hear” when their muscles are becoming more or less tense. Through repeated trial and error, the individuals become skilled at voluntarily reducing muscle tension and, theoretically, at reducing tension and anxiety in everyday stressful situations.

Research finds that, in most cases, EMG biofeedback, like relaxation training, has only a modest effect on a person’s anxiety level (Brambrink, 2004). As you will see in Chapter 10, biofeedback has had its greatest impact when it plays an **adjunct** role in the treatment of certain medical problems, including headaches and back pain (Flor, 2014; Young & Kemper, 2013; Astin, 2004).

**Phobias**

Most of us are none too eager to confront a spider or to be caught in a thunder-storm, but few of us have such dread as Marianne or Trisha:

*Marianne*: Seeing a spider makes me rigid with fear, hot, trembling and dizzy. I have occasionally vomited and once fainted in order to escape from the situation. These symptoms last three or four days after seeing a spider. Realistic pictures can cause the same effect, especially if I inadvertently place my hand on one.

(Melville, 1978, p. 44)

*Trisha*: At the end of March each year, I start getting agitated because summer is coming and that means thunderstorms. I have been afraid since my early twenties, but the last three years have been the worst. I have such a heartbeat that for hours after a storm my whole left side is painful. . . . I say I will stay in the room, but when it comes I am a jelly, reduced to nothing. I have a little cupboard and I go there, I press my eyes so hard I can’t see for about an hour, and if I sit in the cupboard over an hour my husband has to straighten me up.

(Melville, 1978, p. 104)
A phobia (from the Greek word for “fear”) is a persistent and unreasonable fear of a particular object, activity, or situation. People with a phobia become fearful if they even think about the object or situation they dread, but they usually remain comfortable as long as they avoid it or thoughts about it.

We all have our areas of special fear, and it is normal for some things to upset us more than other things (see MediaSpeak on the next page). How do such common fears differ from phobias? DSM-5 indicates that a phobia is more intense and persistent and the desire to avoid the object or situation is stronger (APA, 2013). People with phobias often feel so much distress that their fears may interfere dramatically with their lives.

Most phobias technically fall under the category of specific phobias, DSM-5’s label for an intense and persistent fear of a specific object or situation. In addition, there is a broader kind of phobia called agoraphobia, a fear of venturing into public places or situations where escape might be difficult if one were to become panicky or incapacitated.

Specific Phobias

A specific phobia is a persistent fear of a specific object or situation (see Table 5-5). When sufferers are exposed to the object or situation, they typically experience immediate fear. Common specific phobias are intense fears of specific animals or insects, heights, enclosed spaces, thunderstorms, and blood. Here Andrew talks about his phobic fear of flying:

> We got on board, and then there was the take-off. There it was again, that horrible feeling as we gathered speed. It was creeping over me again, that old feeling of panic. I kept seeing everyone as puppets, all strapped to their seats with no control over their destinies, me included. Every time the plane did a variation of speed or route, my heart would leap and I would hurriedly ask what was happening. When the plane started to lose height, I was terrified that we were about to crash.

*(Melville, 1978, p. 59)*

Each year around 12 percent of all people in the United States have the symptoms of a specific phobia (Kessler et al., 2012). Almost 14 percent of individuals develop such phobias at some point during their lives, and many people have more than one at a time. Women with the disorder outnumber men by at least 2 to 1. For reasons that are not clear, the prevalence of specific phobias also differs among racial and ethnic minority groups. In some studies, African Americans and Hispanic Americans report having at least 50 percent more specific phobias than do white Americans, even when economic factors, education, and age are held steady across the groups (Stein & Williams, 2010; Hopko et al., 2008; Breslau et al., 2006). It is worth noting, however, that these heightened rates are at work only among African and Hispanic Americans who were born in the United States, not those who migrated to the United States at some point during their lives (Hopko et al., 2008).

The impact of a specific phobia on a person’s life depends on what arouses the fear (Costa et al., 2014; Gamble, Harvey, & Rapee, 2010). People whose phobias center on dogs, insects, or water will keep encountering the objects they dread. Their efforts to avoid them must be elaborate and may greatly restrict their activities. Urban residents with snake phobias have a much easier time. The vast majority of people with a specific phobia do not seek treatment (NIMH, 2011). They try instead to avoid the objects they fear.
Every job requires a special skill set.

In this business, screaming is one of those skills. Also, being certified on a chainsaw.

“We’re always looking for folks who have a passion for wielding a chainsaw while wearing makeup and costume and just scaring the heck out of people,” says Jennifer Struever.

Streuver is the event manager for Scream Zone at the Del Mar Fairgrounds in San Diego County, Calif. Haunted houses are part of the multibillion-dollar business of Halloween—and they need employees.

Streuver is conducting interviews inside the Scream Zone’s tented maze, in a room that could be Leatherface’s kitchen. It has a slab of meat hanging from the ceiling and impressive cutlery on the wall.

“We do ask people if they have any problem with chainsaw fumes, moving floors, strobe lights, loud noises,” Streuver says. “We need to know if they’re allergic to stage blood or latex, because they will be experiencing that in their costumes and makeup.”

Over at the haunted castle end of the Scream Zone tent, a huge green demon salivates over potential victims—ahem, applicants—as they wait to be called for their interview. It’s so hot that the multiple fans do little to help, and the heat feels like it could melt the flesh off the living dead.

Geraldo Figueroa could get into that. “I’d like to be a zombie,” he says. “It seems like it’d be really fun, especially with the new attraction”—zombie paintball safari.

That interests Autumn Maize, who’s eager to display her undead expertise. “Well, since zombies can’t really breathe or anything, there’s not really much sound that they make except for maybe some guttural gasps,” she says before giving an example of what that sounds like. “But you can make some great sounds with your mouth like chewing sounds that don’t require breathing—so I get a little technical.”

Maize is exactly the type of person Struever is looking for. “We’re looking for folks who have a passion for Halloween and any theatrical or athletic experience,” Struever says.

Or, lung power—as Samantha Topacio demonstrates. “I mean, I haven’t screamed in awhile because no one really recreationally screams just for fun,” she says.

Topacio performed better at her audition. “I did one that was a victim-type thing,” she says, “and then the other one was more like a creepy antagonist-type character.”

The screams landed her the job and got her a high-five from Ashley Amaral, who’s been working at the Scream Zone for years. The petite, perky blond takes wicked delight in her job.

“It is so awesome to see big burly men crumble to the ground,” she says. “You think they’re so tough. They come in like, ‘Oh, you’re just a girl, please.’ And they just crumble. They will run out of this and say, ‘Oh, blank, no, I’m out of here.’”

Each time someone flees for an emergency exit, it’s a bloody feather in her co-workers’ cap. There’s a scoreboard where they keep a tally of victims who don’t make it through the House of Horror. Last year it was 523. It gives a whole new meaning to customer satisfaction.

The Fear Business. Source: In This Business, Scaredy Cats Need Not Apply by Beth Accomando, NPR October 6 2013 (from KPBS).
Agoraphobia

People with agoraphobia are afraid of being in public places or situations where escape might be difficult or help unavailable, should they experience panic or become incapacitated (APA, 2013) (see Table 5–6). This is a pervasive and complex phobia. In any given year, 1.7 percent of the population experience agoraphobia, women twice as frequently as men (Kessler et al., 2012). The disorder also is twice as common among poor people as wealthy people (Sareen et al., 2011). At least one-fifth of those with agoraphobia are currently in treatment (NIMH, 2011).

People typically develop agoraphobia in their 20s or 30s, as Veronica did:

For several months prior to her application for treatment Veronica had been unable to leave her home. . . . “It is as if something dreadful would happen to me if I did not immediately go home.” Even after she would return to the house, she would feel shaken inside and unable to speak to anyone or do anything for an hour or so. However, as long as she remained in her own home or garden, she was able to carry on her routine life without much problem. . . . Because of this agoraphobia, she had been unable to return to her position as a mathematics teacher in the local high school after the summer vacation.

. . . [Veronica] stated that she had always been a somewhat shy person who generally preferred keeping to herself, but that up until approximately a year ago she had always been able to go to her job, shop, or go to church without any particular feelings of dread or uneasiness. It was difficult for her to recall the first time . . . but it seemed to her that the first major experience was approximately a year before, when she and her mother had been Christmas shopping. They were standing in the middle of a crowded department store when she suddenly felt the impulse to flee. She left her mother without an explanation and drove home as fast as she could. . . . After the Christmas vacation she seemed to recover for a while and was at least able to return to her classroom duties without any ill effect. During the ensuing several months she had several similar experiences, usually when she was off duty; but by late spring these fears were just as likely to occur in the classroom. . . . In thinking further about the occurrence of her phobia, it seemed to Veronica that there was actually no particular stress which might account for her fear.

(Goldstein & Palmer, 1975, pp. 163–164)

It is typical of people with agoraphobia to avoid entering crowded streets or stores, driving in parking lots or on bridges, and traveling on public transportation or in airplanes. If they venture out of the house at all, it is usually only in the company of close relatives or friends. Some insist that family members or friends stay with them at home, but even at home and in the company of others they may continue to feel anxious.

In many cases the intensity of the agoraphobia fluctuates, as it did for Veronica. In severe cases, people become virtual prisoners in their own homes. Their social life dwindles and they cannot hold a job. People with agoraphobia may also become depressed, sometimes as a result of the severe limitations that their disorder places on their lives.

Many people with agoraphobia do, in fact, have extreme and sudden explosions of fear, called panic attacks, when they enter public places, a problem that may have first set the stage for their development of agoraphobia. Such individuals may receive two diagnoses—agoraphobia and panic disorder, an anxiety disorder that you will read

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**Dx Checklist**

**Agoraphobia**

1. Pronounced, disproportionate, and repeated fear about being in at least 2 of the following situations: • Public transportation (e.g., auto or plane travel) • Parking lots, bridges, or other open spaces • Shops, theaters, or other confined places • Lines or crowds • Away from home unaccompanied.

2. Fear of such agoraphobic situations derives from a concern that it would be hard to escape or get help if panic, embarrassment, or disabling symptoms were to occur.

3. Avoidance of the agoraphobic situations.

4. Symptoms usually continue for at least 6 months.

5. Significant distress or impairment.


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**agoraphobia** An anxiety disorder in which a person is afraid to be in public situations from which escape might be difficult or help unavailable if panic-like or embarrassing symptoms were to occur.

**classical conditioning** A process of learning in which two events that repeatedly occur close together in time become tied together in a person’s mind and so produce the same response.

**modeling** A process of learning in which a person observes and then imitates others. Also, a therapy approach based on the same principle.
about later in this chapter—because their difficulties extend considerably beyond an excessive fear of venturing away from home into public places (APA, 2013).

What Causes Phobias?
Each of the models offers explanations for phobias. Evidence tends to support the behavioral explanations. Behaviorists believe that people with phobias first learn to fear certain objects, situations, or events through conditioning (Cherry, 2014; Field & Purkis, 2012; Gamble et al., 2010). Once the fears are acquired, the individuals avoid the dreaded object or situation, permitting the fears to become all the more entrenched.

Behavioral Explanations: How Are Fears Learned? Behaviorists propose classical conditioning as a common way of acquiring phobic reactions. Here, two events that occur close together in time become strongly associated in a person’s mind, and as you saw in Chapter 3, the person then reacts similarly to both of them. If one event triggers a fear response, the other may also.

In the 1920s, a clinician described the case of a young woman who apparently acquired a specific phobia of running water through classical conditioning (Bagby, 1922). When she was 7 years old she went on a picnic with her mother and aunt and ran off by herself into the woods after lunch. While she was climbing over some large rocks, her feet were caught between two of them. The harder she tried to free herself, the more trapped she became. No one heard her screams, and she grew more and more terrified. In the language of behaviorists, the entrapment was eliciting a fear response.

Entrapment → Fear response

As she struggled to free her feet, the girl heard a waterfall nearby. The sound of the running water became linked in her mind to her terrifying battle with the rocks, and she developed a fear of running water as well.

Running water → Fear response

Eventually the aunt found the screaming child, freed her from the rocks, and comforted her, but the psychological damage had been done. From that day forward, the girl was terrified of running water. For years family members had to hold her down to bathe her. When she traveled on a train, friends had to cover the windows so that she would not have to look at any streams. The young woman had apparently acquired a specific phobia through classical conditioning.

In conditioning terms, the entrapment was an unconditioned stimulus (US) that understandably elicited an unconditioned response (UR) of fear. The running water represented a conditioned stimulus (CS), a formerly neutral stimulus that became associated with entrapment in the child’s mind and came also to elicit a fear reaction. The newly acquired fear was a conditioned response (CR).

US: Entrapment → UR: Fear

CS: Running water → CR: Fear

Another way of acquiring a fear reaction is through modeling, that is, through observation and imitation (Bandura & Rosenthal, 1966). A person may observe that others are afraid of certain objects or events and develop fears of the same things. Consider a young boy whose mother is afraid of illnesses, doctors, and hospitals. If she frequently expresses those fears, before long the boy himself may fear illnesses, doctors, and hospitals.
Why should one or a few upsetting experiences or observations develop into a long-term phobia? Shouldn’t the trapped girl see later that running water will bring her no harm? Shouldn’t the boy see later that illnesses are temporary and doctors and hospitals helpful? Behaviorists believe that after acquiring a fear response, people try to avoid what they fear. They do not get close to the dreaded objects often enough to learn that the objects are really quite harmless.

Behaviorists also propose that learned fears of this kind will blossom into a generalized anxiety disorder if a person acquires a large number of them. This development is presumed to come about through stimulus generalization: responses to one stimulus are also elicited by similar stimuli. The fear of running water acquired by the girl in the rocks could have generalized to such similar stimuli as milk being poured into a glass or even the sound of bubbly music. Perhaps a person experiences a series of upsetting events, each event produces one or more feared stimuli, and the person’s reactions to each of these stimuli generalize to yet other stimuli. That person may then build up a large number of fears and eventually develop generalized anxiety disorder.

How Have Behavioral Explanations Fared in Research? Some laboratory studies have found that animals and humans can indeed be taught to fear objects through classical conditioning (Miller, 1948; Mowrer, 1947, 1939). In one famous report, psychologists John B. Watson and Rosalie Rayner (1920) described how they taught a baby boy called Little Albert to fear white rats. For weeks Albert was allowed to play with a white rat and appeared to enjoy doing so. One time when Albert reached for the rat, however, the experimenter struck a steel bar with a hammer, making a very loud noise that frightened Albert. The next several times that Albert reached for the rat, the experimenter again made the loud noise. Albert acquired a fear and avoidance response to the rat.

Research has also supported the behavioral position that fears can be acquired through modeling. Psychologists Albert Bandura and Theodore Rosenthal (1966), for example, had human research participants observe a person apparently being shocked by electricity whenever a buzzer sounded. The victim was actually the experimenter’s accomplice—in research terminology, a confederate—who pretended to feel pain by twitching and yelling whenever the buzzer went on. After the unsuspecting participants had observed several such episodes, they themselves had a fear reaction whenever they heard the buzzer.

Although these studies support behaviorists’ explanations of phobias, other research has called those explanations into question (Gamble et al., 2010). Several laboratory studies with children and adults have failed to condition fear reactions. In addition, although most case studies trace phobias to incidents of classical conditioning or modeling, quite a few fail to do so. So, although it appears that a phobia can be acquired by classical conditioning or modeling, researchers have not established that the disorder is ordinarily acquired in this way.

A Behavioral-Evolutionary Explanation Some phobias are much more common than others. Phobic reactions to animals, heights, and darkness are more common than phobic reactions to meat, grass, and houses (see MediaSpeak). Theorists often account for these differences by proposing that human beings, as a species, have a predisposition to develop certain fears (Cherry, 2014; Lundqvist &

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**stimulus generalization** A phenomenon in which responses to one stimulus are also produced by similar stimuli.

**preparedness** A predisposition to develop certain fears.

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And don’t let the bedbugs bite
In this public demonstration of their behavior and abilities, adult bedbugs crawl on a piece of paper in a tiny jar. The recent bedbug outbreak in New York reminds us that not all fears of insects are ill-founded. Indeed, a number of bedbugs in the city climbed out of bed and boldly marched to places like the Empire State Building, Bloomingdale’s, and Lincoln Center.
Ohman, 2005; Seligman, 1971). This idea is referred to as preparedness because human beings, theoretically, are “prepared” to acquire some phobias and not others. The following case makes the point:

A four-year-old girl was playing in the park. Thinking that she saw a snake, she ran to her parents’ car and jumped inside, slamming the door behind her. Unfortunately, the girl’s hand was caught by the closing car door, the results of which were severe pain and several visits to the doctor. Before this, she may have been afraid of snakes, but not phobic. After this experience, a phobia developed, not of cars or car doors, but of snakes. The snake phobia persisted into adulthood, at which time she sought treatment from me.

(Marks, 1977, p. 192)

Where might such predispositions to fear come from? According to some theorists, the predispositions have been transmitted genetically through an evolutionary process. Among our ancestors, the ones who more readily acquired fears of animals, darkness, heights, and the like were more likely to survive long enough to reproduce and to pass on their fear inclinations to their offspring (Cherry, 2014; Hofer, 2010; Ohman & Mineka, 2003).

How Are Phobias Treated?
Every theoretical model has its own approach to treating phobias, but behavioral techniques are more widely used than the rest, particularly for specific phobias. In addition, research has shown such techniques to fare better than other approaches in most head-to-head comparisons. Thus we shall focus here primarily on the behavioral interventions.

Treatments for Specific Phobias Specific phobias were among the first anxiety disorders to be treated successfully. The major behavioral approaches to treating them are systematic desensitization, flooding, and modeling. Together, these

Flight without fear
No, these people are not sleeping, or worse. They are going through relaxation and meditation exercises prior to going on an airplane flight from Kansas City to Denver. They are students in an eight-week course called “Flight Without Fear” that applies the principles of behavioral desensitization to help people overcome their phobic fear of flying.
approaches are called exposure treatments because in all of them people are exposed to the objects or situations they dread (Gordon et al., 2013; Abramowitz, Deacon, & Whiteside, 2011).

People treated by systematic desensitization, a technique developed by Joseph Wolpe (1987, 1969), learn to relax while gradually facing the objects or situations they fear. Since relaxation and fear are incompatible, the new relaxation response is thought to substitute for the fear response. Desensitization therapists first offer relaxation training to clients, teaching them how to bring on a state of deep muscle relaxation at will. In addition, the therapists help clients create a fear hierarchy, a list of feared objects or situations, ordered from mildly to extremely upsetting.

Then clients learn how to pair relaxation with the objects or situations they fear. While the client is in a state of relaxation, the therapist has the client face the event at the bottom of his or her hierarchy. This may be an actual confrontation, a process called in vivo desensitization. A person who fears heights, for example, may stand on a chair or climb a stepladder. Or the confrontation may be imagined, a process called covert desensitization. In this case, the person imagines the frightening event while the therapist describes it. The client moves through the entire list, pairing his or her relaxation responses with each feared item. Because the first item is only mildly frightening, it is usually only a short while before the person is able to relax totally in its presence. Over the course of several sessions, clients move up the ladder of their fears until they reach and overcome the one that frightens them most of all.

Another behavioral treatment for specific phobias is flooding. Therapists who use flooding believe that people will stop fearing things when they are exposed to them repeatedly and made to see that they are actually quite harmless. Clients are forced to face their feared objects or situations without relaxation training and without a gradual buildup. The flooding procedure, like desensitization, can be either in vivo or covert.

When flooding therapists guide clients in imagining feared objects or situations, they often exaggerate the description so that the clients experience intense emotional arousal. In the case of a woman with a snake phobia, the therapist had her imagine the following scene, among others:

> Close your eyes again. Picture the snake out in front of you, now make yourself pick it up. Reach down, pick it up, put it in your lap, feel it wiggling around in your lap, leave your hand on it, put your hand out and feel it wiggling around. Kind of explore its body with your fingers and hand. You don’t like to do it, make yourself do it. Make yourself do it. Really grab onto the snake. Squeeze it a little bit, feel it. Feel it kind of start to wind around your hand. Let it. Leave your hand there, feel it touching your hand and winding around it, curling around your wrist.

(Hogan, 1968, p. 423)

In modeling it is the therapist who confronts the feared object or situation while the fearful person observes (Bandura, 2011, 1977, 1971; Bandura et al., 1977). The behavioral therapist acts as a model to demonstrate that the person’s fear is groundless. After several sessions many clients are able to approach the objects or situations

> **exposure treatments** Behavioral treatments in which persons are exposed to the objects or situations they dread.

> **systematic desensitization** A behavioral treatment that uses relaxation training and a fear hierarchy to help clients with phobias react calmly to the objects or situations they dread.

> **flooding** A treatment for phobias in which clients are exposed repeatedly and intensively to a feared object and made to see that it is actually harmless.

Recovering lost revenues

These riders scream out as they experience a sudden steep drop from the top of an amusement park ride. Several parks offer behavioral programs to help prospective customers overcome their fears of roller coasters and other horror rides. After “treatment,” some clients are able to ride the rails with the best of them. For others, it’s back to the relative calm of the Ferris wheel.
Anxiety, Obsessive-Compulsive, and Related Disorders

calmly. In one version of modeling, participant modeling, the client is actively encouraged to join in with the therapist.

Clinical researchers have repeatedly found that each of the exposure treatments helps people with specific phobias (Antony & Roemer, 2011; Rosqvist, 2005). The key to greater success in all of these therapies appears to be actual contact with the feared object or situation. In vivo desensitization is more effective than covert desensitization, in vivo flooding more effective than covert flooding, and participant modeling more helpful than strictly observational modeling. In addition, a growing number of therapists are using virtual reality—3D computer graphics that simulate real-world objects and situations—as a useful exposure tool (Dunsmoor et al., 2014; Antony, 2011).

Treatments for Agoraphobia

For years clinicians made little impact on agoraphobia, the fear of leaving one's home and entering public places. However, approaches have now been developed that enable many people with agoraphobia to venture out with less anxiety. These new approaches do not always bring as much relief to sufferers as the highly successful treatments for specific phobias, but they do offer considerable relief to many people.

Behaviorists have again led the way, this time by developing a variety of exposure approaches for agoraphobia (Gloster et al., 2014, 2011). Therapists typically help clients to venture farther and farther from their homes and to gradually enter outside places, one step at a time. Sometimes the therapists use support, reasoning, and coaxing to get clients to confront the outside world. They also use more systematic exposure methods, such as those described in the following case study:

[Lenita] was a young woman who, shortly after she married, found herself unable to leave home. Even walking a few yards from her front door terrified her . . .

It is not surprising . . . that this young woman found herself unable to function independently after leaving home to marry. Her inability to leave her new home was reinforced by an increasing dependence on her husband and by the solicitous overconcern of her mother, who was more and more frequently called in to stay with her. . . . Since she was cut off from her friends and from so much enjoyment in the outside world, depression added to her misery. . . .

[After several years of worsening symptoms, Lenita was admitted to our psychiatric hospital.] To measure [her] improvement, we laid out a mile-long course from the hospital to downtown, marked at about 25-yard intervals. Before beginning [treatment], we asked the patient to walk as far as she could along the course. Each time she balked at the front door of the hospital. Then the first phase of [treatment] began: we held two sessions each day in which the patient was praised for staying out of the hospital for a longer and longer time. The reinforcement schedule was simple. If the patient stayed outside for 20 seconds on one trial and then on the next attempt stayed out for 30 seconds, she was praised enthusiastically. Now, however, the criterion for praise was raised—without the patient's knowledge—to 25 seconds. If she met the criterion she was again praised, and the time was increased again. If she did not stay out long enough, the therapist simply ignored her performance. To gain the therapist's attention, which she valued, she had to stay out longer each time.

This she did, until she was able to stay out for almost half an hour. But was she walking farther each time? Not at all. She was simply circling around in the front drive of the hospital, keeping the "safe place" in sight at all times. We therefore changed the reinforcement to reflect the distance walked. Now she began to walk farther and farther each time. Supported by this simple therapeutic procedure, the patient was progressively able to increase her self-confidence. . . .
Praise was then thinned out, but slowly, and the patient was encouraged to walk anywhere she pleased. Five years later, she [is] still perfectly well. We might assume that the benefits of being more independent maintained the gains and compensated for the loss of praise from the therapist.

(Agras, 1985, pp. 77–80)

Exposure therapy for people with agoraphobia often includes additional features—particularly the use of support groups and home-based self-help programs—to motivate clients to work hard at their treatment. In the support group approach, a small number of people with agoraphobia go out together for exposure sessions that last for several hours. The group members support and encourage one another, and eventually coax one another to move away from the safety of the group and perform exposure tasks on their own. In the home-based self-help programs, clinicians give clients and their families detailed instructions for carrying out exposure treatments themselves.

Between 60 and 80 percent of agoraphobic clients who receive exposure treatment find it easier to enter public places, and the improvement persists for years after the beginning of treatment (Craske & Barlow, 2014; Gloster et al., 2014, 2011; Klein et al., 2011). Unfortunately, these improvements are often partial rather than complete, and as many as half of successfully treated clients have relapses, although these people readily recapture previous gains if they are treated again. Those whose agoraphobia is accompanied by a panic disorder seem to benefit less than others from exposure therapy alone. We shall take a closer look at this group when we investigate treatments for panic disorder.

Social Anxiety Disorder

Many people are uncomfortable when interacting with others or talking or performing in front of others. A number of entertainers and sports figures, from singer Barbra Streisand to baseball pitcher Zack Greinke, have described episodes of significant anxiety before performing. Social fears of this kind certainly are unpleasant, but usually the people who have them manage to function adequately.

People with social anxiety disorder, by contrast, have severe, persistent, and irrational anxiety about social or performance situations in which they may face scrutiny by others and possibly feel embarrassment (APA, 2013) (see Table 5-7). The social anxiety may be narrow, such as a fear of talking in public or eating in front of others, or it may be broad, such as a general fear of functioning poorly in front of others. In both forms, people repeatedly judge themselves as performing less competently than they actually do (see MindTech on page 155). It is because of its wide-ranging scope that this disorder is now called social anxiety disorder rather than social phobia, the label it had in past editions of the DSM (Heimberg et al., 2014).

Social anxiety disorder can interfere greatly with one’s life (Cooper, Hildebrandt, & Gerlach, 2014; Ravindran & Stein, 2011). A person who cannot interact with others or speak in public may fail to carry out important responsibilities. One who cannot eat in public may reject meal invitations and other social offerings. Since many people with this disorder keep their fears secret, their social reluctance is often misinterpreted as snobbery, lack of interest, or hostility.

Surveys reveal that 7.4 percent of people in the United States and other Western countries (around 60 percent of them female) experience social anxiety disorder in any given year (see Table 5-8). Around 13 percent develop this disorder at
some point in their lives (Kessler et al., 2012; Alfano & Beidel, 2011). It tends to begin in late childhood or adolescence and may continue into adulthood. At least one-quarter of individuals with social anxiety disorder are currently in treatment (NIMH, 2011).

Research finds that poor people are 50 percent more likely than wealthier people to have social anxiety disorder (Sareen et al., 2011). Moreover, in several studies African Americans and Asian Americans, but not Hispanic Americans, have scored higher than white Americans on surveys of social anxiety (Melka et al., 2010; Polo et al., 2011; Stein & Williams, 2010). In addition, a culture-bound disorder called *tajin kyofusho* seems to be particularly common in Asian countries such as Japan and Korea. Although this disorder is traditionally defined as a fear of making other people feel uncomfortable, a number of clinicians now suspect that its sufferers primarily fear being evaluated negatively by other people, a key feature of social anxiety disorder.

**What Causes Social Anxiety Disorder?**

The leading explanation for social anxiety disorder has been proposed by cognitive theorists and researchers (Iza et al., 2014; Heimberg, Brozovich, & Rapee, 2010; Hofmann, 2007). They contend that people with this disorder hold a group of social beliefs and expectations that consistently work against them. These include:

➤ They hold unrealistically high social standards and so believe that they must perform perfectly in social situations.

➤ They view themselves as unattractive social beings.

➤ They view themselves as socially unskilled and inadequate.

➤ They believe they are always in danger of behaving incompetently in social situations.

➤ They believe that inept behaviors in social situations will inevitably lead to terrible consequences.

➤ They believe that they have no control over feelings of anxiety that emerge in social situations.

Cognitive theorists hold that, because of these beliefs, people with social anxiety disorder keep anticipating that social disasters will occur, and they repeatedly perform “avoidance” and “safety” behaviors to help prevent or reduce such disasters.

**Profile of Anxiety Disorders and Obsessive-Compulsive Disorder**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>One-Year Prevalence</th>
<th>Female to Male Ratio</th>
<th>Typical Age at Onset</th>
<th>Prevalence Among Close Relatives</th>
<th>Percentage Receiving Clinical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized anxiety disorder</td>
<td>4.0%</td>
<td>2:1</td>
<td>0–20 years</td>
<td>Elevated</td>
<td>25.5</td>
</tr>
<tr>
<td>Specific phobia</td>
<td>12.0%</td>
<td>2:1</td>
<td>Variable</td>
<td>Elevated</td>
<td>19.0</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>1.7%</td>
<td>2:1</td>
<td>15–35 years</td>
<td>Elevated</td>
<td>20.9</td>
</tr>
<tr>
<td>Social anxiety disorder</td>
<td>7.4%</td>
<td>3:2</td>
<td>10–20 years</td>
<td>Elevated</td>
<td>24.7</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>2.4%</td>
<td>5:2</td>
<td>15–35 years</td>
<td>Elevated</td>
<td>34.7</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>1.0%–2.0%</td>
<td>1:1</td>
<td>4–25 years</td>
<td>Elevated</td>
<td>41.3</td>
</tr>
</tbody>
</table>

Information from: NIMH, 2011; Kessler et al., 2010, 2005, 1999, 1994; Ritter et al., 2010; Ruscio et al., 2007; Wang et al., 2005; Regier et al., 1993.
Beset by such beliefs and expectations, people with social anxiety disorder find that their anxiety levels increase as soon as they enter into a social situation. Moreover, because they are convinced that their social flaws are the cause of the anxiety, certain that they do not have the social skills to deal with the situation, and concerned that they cannot contain their negative arousal, they become filled with anxiety.

Later, after the social event has taken place, the individuals repeatedly review the details of the event. They overestimate how poorly things went and what negative results may take place. These persistent thoughts actually keep the event alive and further increase the individuals’ fears about future social situations.

Researchers have indeed found that people with social anxiety disorder manifest the beliefs, expectations, interpretations, and feelings listed here (Moscovitch et al., 2013; Rosenberg et al., 2010). At the same time, cognitive theorists often differ on why some individuals have such cognitions and others do not. Various factors have been uncovered by researchers, including genetic predispositions, trait tendencies, biological abnormalities, traumatic childhood experiences, and overprotective parent-child interactions during childhood (Heimberg & Magee, 2014; Rapee, 2014; Kuo et al., 2011).

Treatments for Social Anxiety Disorder

Only in the past 15 years have clinicians been able to treat social anxiety disorder successfully (Rosenberg et al., 2010). Their newfound success is due in part to the growing recognition that the disorder has two distinct features that may feed upon each other: (1) sufferers have overwhelming social fears, and (2) they often lack skill at starting conversations, communicating their needs, or meeting the needs of others (Beck, 2010). Armed with this insight, clinicians now treat social anxiety disorder by trying to reduce social fears, by providing training in social skills, or both.

How Can Social Fears Be Reduced?

Social fears are often reduced through medication (Pelissolo & Moukheiber, 2013; Ravindran & Stein, 2011). Somewhat surprisingly, it is antidepressant medications that seem to be the drugs of most help for this disorder, often more helpful than benzodiazepines or other kinds of antianxiety medications. At the same time, several types of psychotherapy have proved to be at least as effective as medication at reducing social fears, and people helped by such psychological treatments appear less likely to relapse than those treated with medications alone (Abramowitz et al., 2011). This finding suggests to some clinicians that the psychological approaches should always be included in the treatment of social fears.

One psychological approach is exposure therapy, the behavioral intervention so effective with phobias (Heimberg & Magee, 2014; Anderson et al., 2013; Antony & Roemer, 2011). Exposure therapists encourage clients with social fears to expose themselves to the dreaded social situations and to remain until their fears subside. Usually the exposure is gradual, and it often includes homework assignments that are carried out in the social situations. In addition, group therapy offers an ideal setting for exposure treatments by allowing people to face social situations in an atmosphere of support and caring (McEvoy, 2007). In one group, for example, a man who was afraid that his hands would tremble in the presence of other people had to write on a blackboard in front of the group and serve tea to the other members (Emmelkamp, 1982).
MindTech

Social Media Jitters

As you read in Chapter 1, some people develop “cyber fear,” a persistent fear of computer crashes, computer viruses, computer-identity theft, and/or cyber terrorism (see page 9). In recent years, researchers have learned that computer and mobile device use can also produce more common forms of anxiety, including social and generalized anxiety (Lepp, Barkley, & Karpinski, 2014; Smith, 2014; Krasnova et al., 2013).

The biggest culprit here seems to be spending too much time on social networks such as Facebook. Although frequenting social network sites helps many people feel more supported, important, and included, for others, the visits seem to produce significant insecurities and fears. Surveys suggest, for example, that more than one-third of Facebook users develop a fear that others will post or use information or photos of them without their permission (Smith, 2014; Szalavitz, 2013). In addition, a fourth of all users feel a constant pressure to disclose too much personal information on their social networks, and a number feel intense pressure to post material that will be popular and get numerous comments and “likes.” More than a few users also worry that they will discover posts about social activities from which they were excluded.

Consistent with such concerns, one study found that a third of users feel distinctly worse after visiting Facebook—more anxious, more envious, and more dissatisfied with their lives (Krasnova et al., 2013). Such feelings are particularly triggered when users observe vacation photos of other users, read birthday greetings received by other users, and see how many “likes” or comments others receive for their postings or photos. Such experiences seem to trigger a form of social comparison and lead some users to worry that they are less desirable, less interesting, or less capable than most other social media users.

Of course, many of today’s users do feel more positive about their social network visits. But even these people may have some social network-induced anxiety and tension. Around two-thirds, for example, are truly afraid that they will miss something if they don’t check their social networks constantly—a phenomenon known as FOMO (“fear of missing out”) (Cool Infographics, 2013; Szalavitz, 2013).

Social networking is not the only digital source of anxiety. Recent studies show that excessive cell phone use, for any purpose, often results in high levels of anxiety and tension (Leff et al., 2014). Why? Some theorists speculate that frequent phone users feel obligated to stay in touch with friends, another version of FOMO. Still other theorists believe that the rise in anxiety among heavy cell phone users is really the result of other cell phone effects, such as poorer performance in school or a reduction in positive time spent alone and self-reflecting (Archer, 2013). Whatever the explanation, two-thirds of cell phone users report feeling “panicked” when they misplace or lose their phones, even for a few minutes. Many experience “nomophobia” (no-mobile-phone-phobia), a pop term for the rush of fear that people have when they realize that they are disconnected from the world, friends, and family (Archer, 2013).

Of course, only a minority of these feelings of anxiety and tension rise to the level of psychopathology. But clearly a picture of widespread anxiety is emerging in this realm. And clinical researchers and practitioners are now scrambling to investigate and better understand the nature, breadth, and impact of these jitters.
Cognitive therapies have also been widely used to treat social fears, often in combination with behavioral techniques (Heimberg & Magee, 2014; Goldin et al., 2013, 2012). In the following discussion, cognitive therapist Albert Ellis uses rational-emotive therapy to help a man who fears he will be rejected if he speaks up at gatherings. The discussion took place after the man had done a homework assignment in which he was asked to identify his negative social expectations and force himself to say anything he had on his mind in social situations, no matter how stupid it might seem to him:

"After two weeks of this assignment, the patient came into his next session of therapy and reported: "I did what you told me to do. . . . [Every] time, just as you said, I found myself retreating from people, I said to myself: 'Now, even though you can't see it, there must be some sentences. What are they?' And I finally found them. And there were many of them! And they all seemed to say the same thing."

“What thing?”

“That I, uh, was going to be rejected. . . . [If] I related to them I was going to be rejected. And wouldn’t that be perfectly awful if I was to be rejected. And there was no reason for me, uh, to take that, uh, sort of thing, and be rejected in that awful manner. . . .

“And did you do the second part of the homework assignment?”

“The forcing myself to speak up and express myself?”

“Yes, that part.”

“That was worse. That was really hard. Much harder than I thought it would be. But I did it.”

“And?”

“Oh, not bad at all. I spoke up several times; more than I’ve ever done before. Some people were very surprised. Phyllis was very surprised, too. But I spoke up.” . . .

“And how did you feel after expressing yourself like that?”

“Remarkable! I don’t remember when I last felt this way. I felt, uh, just remarkable—good, that is. It was really something to feel! But it was so hard. I almost didn’t make it. And a couple of other times during the week I had to force myself again. But I did. And I was glad!”

(Ellis, 1962, pp. 202–203)

Studies show that rational-emotive therapy and other cognitive approaches do indeed help reduce social fears (Heimberg & Magee, 2014; Ollendick, 2014; Boden et al., 2012). And these reductions typically persist for years. On the other hand, research also suggests that while cognitive therapy often reduces social fears, it does not consistently help people perform effectively in social settings. This is where social skills training has come to the forefront.

How Can Social Skills Be Improved? In social skills training, therapists combine several behavioral techniques in order to help people improve their social skills. They usually model appropriate social behaviors for clients and encourage the individuals to try them out. The clients then role-play with the therapists, rehearsing their new behaviors until they become more
Effective. Throughout the process, therapists provide frank feedback and reinforce the clients for effective performances.

Reinforcement from other people with similar social difficulties is often more powerful than reinforcement from a therapist alone. In social skills training groups and assertiveness training groups, members try out and rehearse new social behaviors with other group members. The group can also provide guidance on what is socially appropriate. According to research, social skills training, both individual and group formats, has helped many people perform better in social situations (Sarver, Beidel, & Spitalnick, 2014; Kim et al., 2011).

### Panic Disorder

Sometimes an anxiety reaction takes the form of a smothering, nightmarish panic in which people lose control of their behavior and, in fact, are practically unaware of what they are doing. Anyone can react with panic when a real threat looms up suddenly. Some people, however, experience panic attacks—periodic, short bouts of panic that occur suddenly, reach a peak within minutes, and gradually pass (APA, 2013).

The attacks feature at least four of the following symptoms of panic: palpitations of the heart, tingling in the hands or feet, shortness of breath, sweating, hot and cold flashes, trembling, chest pains, choking sensations, faintness, dizziness, and a feeling of unreality (APA, 2013). Small wonder that during a panic attack many people fear they will die, go crazy, or lose control.

My first panic attack happened when I was traveling for spring break with my mom. . . . [W]hile I was driving . . . , a random thought entered my head, . . . and BOOM—it was like my body . . . had been waiting for an invitation and jumped me right in to a full-blown panic attack. I felt huge waves of warm adrenaline surging across my chest and back, my hands were shaking, and I felt scared that I was losing control—whatever that meant. “I’ve got to pull over,” I said. . . . Catching my breath, a part of me knew I had experienced a panic attack, but was still utterly bewildered at why it happened and how quickly it came on, taking over body and mind. . . . If you’ve never had a panic attack before, it feels as scary as if someone jumped out from a dark alley and put a gun to your head, leaving you pleading for your life. You would do whatever it took to get away and fast. . . . It’s so intense that in the height of panic, the survival instinct kicks in and it seems like a toss-up whether you’ll make it out alive or with your mental faculties in place. . . .

(LeCroy & Holschuh, 2012)

More than one-quarter of all people have one or more panic attacks at some point in their lives (Kessler et al., 2010, 2006). Some people, however, have panic attacks repeatedly and unexpectedly and without apparent reason. They may be suffering from panic disorder. In addition to the panic attacks, people who are diagnosed with panic disorder experience dysfunctional changes in their thinking or behavior as a result of the attacks (see Table 5-9). They may, for example, worry persistently about having additional attacks, have concerns about what such attacks mean (“Am I losing my mind?”), or plan their lives around the possibility of future attacks (APA, 2013).

Around 2.4 percent of all people in the United States suffer from panic disorder in a given year; more than 5 percent develop it at some point in their lives (Kessler

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**Table: 5-9**

### Dx Checklist

#### Panic Disorder

1. Unforeseen panic attacks occur repeatedly.

2. One or more of the attacks precedes either of the following symptoms:
   
   - At least a month of continual concern about having additional attacks.
   - At least a month of dysfunctional behavior changes associated with the attacks (for example, avoiding new experiences).


---

**social skills training** A therapy approach that helps people learn or improve social skills and assertiveness through role playing and rehearsing of desirable behaviors.

**panic attacks** Periodic, short bouts of panic that occur suddenly, reach a peak within minutes, and gradually pass.

**panic disorder** An anxiety disorder marked by recurrent and unpredictable panic attacks.
et al., 2012). The disorder tends to develop in late adolescence or early adulthood and is at least twice as common among women as among men. Poor people are 50 percent more likely than wealthier people to experience panic disorder (Sareen et al., 2011).

For reasons that are not understood, the prevalence of this disorder is somewhat higher among white Americans than among minority groups in the United States (Levine et al., 2013; Woodward et al., 2012). In addition, the features of panic attacks seem to differ somewhat from group to group (Barrera et al., 2010). For example, Asian Americans appear more likely than white Americans to experience dizziness, unsteadiness, and choking, while African Americans seem less likely than white Americans to have those particular symptoms. Surveys indicate that at least one-third of those with panic disorder in the United States are currently in treatment (NIMH, 2011; Wang et al., 2005).

As you read earlier, panic disorder is often accompanied by agoraphobia, the broad phobia in which people are afraid to travel to public places where escape might be difficult should they have panic symptoms or become incapacitated. In such cases, the panic disorder typically sets the stage for the development of agoraphobia. That is, after experiencing multiple unpredictable panic attacks, a person becomes increasingly fearful of having new attacks in public places.

The Biological Perspective

In the 1960s, clinicians made the surprising discovery that panic disorder was helped more by certain antidepressant drugs, drugs that are usually used to reduce the symptoms of depression, than by most of the benzodiazepine drugs, the drugs useful in treating generalized anxiety disorder (Klein, 1964; Klein & Fink, 1962). This observation led to the first biological explanations and treatments for panic disorder.

What Biological Factors Contribute to Panic Disorder? To understand the biology of panic disorder, researchers worked backward from their understanding of the antidepressant drugs that seemed to control it. They knew that these particular antidepressant drugs operate in the brain primarily by changing the activity of norepinephrine, yet another one of the neurotransmitters that carries messages between neurons. Given that the drugs were so helpful in eliminating panic attacks, researchers began to suspect that panic disorder might be caused in the first place by abnormal norepinephrine activity.

Several studies produced evidence that norepinephrine activity is indeed irregular in people who suffer from panic attacks. For example, the locus coeruleus is a brain area rich in neurons that use norepinephrine, and serves as a kind of “on-off” switch for most norepinephrine-using neurons throughout the brain (Hedaya, 2011). When this area is electrically stimulated in monkeys, the monkeys have a panic—like reaction, suggesting that panic reactions may be related to increases in norepinephrine activity in the locus coeruleus (Redmond, 1981, 1979, 1977). Similarly, in another line of research, scientists were able to produce panic attacks in human beings by injecting them with chemicals known to increase the activity of norepinephrine (Bourin et al., 1995; Charney et al., 1990, 1987).

These findings strongly tied norepinephrine and the locus coeruleus to panic attacks. However, research conducted in recent years suggests that the root of panic attacks is closely linked to the amygdala, a small, almond-shaped structure in the brain that processes emotional information.

The amygdala

- **norepinephrine** A neurotransmitter whose abnormal activity is linked to panic disorder and depression.
- **locus coeruleus** A small area of the brain that seems to be active in the regulation of emotions. Many of its neurons use norepinephrine.
- **amygdala** A small, almond-shaped structure in the brain that processes emotional information.
attacks is probably more complicated than a single neurotransmitter or a single brain area. It turns out that panic reactions are produced in part by a brain circuit consisting of areas such as the amygdala, hippocampus, ventromedial nucleus of the hypothalamus, central gray matter, and locus coeruleus (Henn, 2013; Etkin, 2010; Ninan & Dunlop, 2005) (see Figure 5-5). When a person confronts a frightening object or situation, the amygdala is stimulated. In turn, the amygdala stimulates the other brain areas in the circuit, temporarily setting into motion an “alarm and escape” response (increased heart rate, respiration, blood pressure, and the like) that is very similar to a panic reaction (Gray & McNaughton, 1996). Most of today’s researchers believe that this brain circuit—including the neurotransmitters at work throughout the circuit—probably functions improperly in people who experience panic disorder (Henn, 2013; Bremner & Charney, 2010; Burijon, 2007).

Note that the brain circuit responsible for panic reactions appears to be different from the one responsible for broad and worry-dominated anxiety reactions—the circuit that was discussed on page 141. Although some of the brain areas and neurotransmitters in the two circuits obviously overlap—particularly the amygdala, which seems to be at the center of each circuit—the finding that the panic brain circuit and the anxiety brain circuit are different has further convinced many researchers that panic disorder is biologically different from generalized anxiety disorder and, for that matter, from other kinds of anxiety disorders.

Why might some people have abnormalities in norepinephrine activity, locus coeruleus functioning, and other parts of the panic brain circuit? One possibility is that a predisposition to develop such abnormalities is inherited (Buttenschøn et al., 2011; Burijon, 2007; Torgersen, 1990, 1983). Once again, if a genetic factor is at work, close relatives should have higher rates of panic disorder than more distant relatives. Studies do find that among identical twins (twins who share all of their genes), if one twin has panic disorder, the other twin has the same disorder in as many as 31 percent of cases (Tsuang et al., 2004). Among fraternal twins (who share only some of their genes), if one twin has panic disorder, the other twin has the same disorder in only 11 percent of cases (Kendler et al., 1995, 1993).

Drug Therapies As you have just read, researchers discovered in 1962 that certain antidepressant drugs could prevent panic attacks or reduce their frequency. Since the time of this surprising finding, studies across the world have repeatedly confirmed the initial observation (Bandelow & Baldwin, 2010; Stein et al., 2010).

It appears that all antidepressant drugs that restore proper activity of norepinephrine in the locus coeruleus and other parts of the panic brain circuit are able to help prevent or reduce panic symptoms (Pollack, 2005; Redmond, 1985). Such drugs bring at least some improvement to 80 percent of patients who have panic disorder, and the improvement can last indefinitely, as long as the drugs are continued. In recent years alprazolam (Xanax) and other powerful benzodiazepine drugs have also proved effective in the treatment of panic disorder (NIMH, 2013; Bandelow & Baldwin, 2010; Stein et al., 2010). Apparently, the benzodiazepines help individuals with this disorder by indirectly affecting the activity of norepinephrine throughout the brain. Clinicians also have found the same antidepressant drugs and powerful benzodiazepines to be helpful in cases of panic disorder accompanied by agoraphobia.
The Cognitive Perspective

Cognitive theorists have come to recognize that biological factors are only part of the cause of panic attacks. In their view, full panic reactions are experienced only by people who further misinterpret the physiological events that are taking place within their bodies. Cognitive treatments are aimed at correcting such misinterpretations.

The Cognitive Explanation: Misinterpreting Bodily Sensations

Cognitive theorists believe that panic-prone people may be very sensitive to certain bodily sensations; when they unexpectedly experience such sensations, they misinterpret them as signs of a medical catastrophe (Gloster et al., 2014; Clark & Beck, 2012, 2010). Rather than understanding the probable cause of their sensations as “something I ate” or “a fight with the boss,” those prone to panic grow increasingly upset about losing control, fear the worst, lose all perspective, and rapidly plunge into panic. For example, many people with panic disorder seem to “overbreathe,” or hyperventilate, in stressful situations. The abnormal breathing makes them think that they are in danger of suffocation, so they panic. They further develop the belief that these and other “dangerous” sensations may return at any time and so set themselves up for future panic attacks.

In biological challenge tests, researchers produce hyperventilation or other biological sensations by administering drugs or by instructing clinical research participants to breathe, exercise, or simply think in certain ways. As you might expect, participants with panic disorder experience greater upset during these tests than participants without the disorder, particularly when they believe that their bodily sensations are dangerous or out of control (Bunaciu et al., 2012; Masdrakis & Papakostas, 2004).

Why might some people be prone to such misinterpretations? One possibility is that panic-prone individuals generally experience, through no fault of their own, more frequent or more intense bodily sensations than other people do (Nillni et al., 2012; Nardi et al., 2001). In fact, the kinds of sensations that are most often misinterpreted in panic disorders seem to be carbon dioxide increases in the blood, shifts in blood pressure, and rises in heart rate—bodily events that are controlled in...

Panic’s aftermath

Flowers and photos are placed in front of the Kiss nightclub in Santa Maria, Brazil, on January 29, 2013, to pay tribute to the victims of a horrific fire at the club a few days earlier. A total of 242 clubbers were killed and 112 injured in the fire, many as a result of crowd panic, stampeding, and crushing. Catastrophes such as this remind us that people with panic disorder are not the only ones to experience panic.
part by the locus coeruleus and other regions of the panic brain circuit. Another possibility, supported by some research, is that people prone to bodily misinterpretations have had more trauma-filled events over the course of their lives than other persons (Hawks et al., 2011).

Whatever the precise causes of such misinterpretations may be, research suggests that panic-prone individuals generally have a high degree of what is called anxiety sensitivity; that is, they focus on their bodily sensations much of the time, are unable to assess them logically, and interpret them as potentially harmful. Studies have found that people who scored high on anxiety-sensitivity surveys are up to five times more likely than other people to develop panic disorder (Hawks et al., 2011; Maller & Reiss, 1992). Other studies have found that individuals with panic disorder typically earn higher anxiety-sensitivity scores than other persons do (Allan et al., 2014; Reinecke et al., 2011; Dattilio, 2001).

**Cognitive Therapy** Cognitive therapists try to correct people’s misinterpretations of their bodily sensations (Craske & Barlow, 2014; Clark & Beck, 2012, 2010). The first step is to educate clients about the general nature of panic attacks, the actual causes of bodily sensations, and the tendency of clients to misinterpret their sensations. The next step is to teach clients to apply more accurate interpretations during stressful situations, thus short-circuiting the panic sequence at an early point. Therapists may also teach clients to cope better with anxiety—for example, by using relaxation and breathing techniques—and to distract themselves from their sensations, perhaps by striking up a conversation with someone.

In addition, cognitive therapists may use biological challenge procedures to induce panic sensations, so that clients can apply their new skills under watchful supervision (Gloster et al., 2014; Baker, 2011). Individuals whose attacks typically are triggered by a rapid heart rate, for example, may be told to jump up and down for several minutes or to run up a flight of stairs. They can then practice interpreting the resulting sensations appropriately, without dwelling on them.

According to research, cognitive treatments often help people with panic disorder (Craske & Barlow, 2014; Gloster et al., 2014; Elkins & Moore, 2011; Teachman, 2011). In studies across the world, around 80 percent of participants given these treatments have become free of panic, compared with only 13 percent of control participants. Cognitive therapy has proved to be at least as helpful as antidepressant drugs or alprazolam in the treatment of panic disorder, sometimes even more so (Baker, 2011; McCabe & Antony, 2005). In view of the effectiveness of both cognitive and drug treatments, many clinicians have tried combining them. It is not yet clear, however, whether this strategy is more effective than cognitive therapy alone. For individuals who display both panic disorder and agoraphobia, research suggests that it is most helpful to combine behavioral exposure techniques with cognitive treatments and/or drug therapy (Gloster et al., 2014, 2011; Arch & Craske, 2011).

**Obsessive-Compulsive Disorder**

**Obsessions** are persistent thoughts, ideas, impulses, or images that seem to invade a person’s consciousness. **Compulsions** are repetitive and rigid behaviors or mental acts that people feel they must perform in order to prevent or reduce anxiety. As Figure 5–6 indicates, minor obsessions and compulsions are familiar to almost everyone. You may find yourself filled with thoughts about an upcoming performance or exam or keep wondering whether you forgot to turn off the stove or...
lock the door. You may feel better when you avoid stepping on cracks, turn away from black cats, or arrange your closet in a particular manner.

Minor obsessions and compulsions can play a helpful role in life. Little rituals often calm us during times of stress. A person who repeatedly hums a tune or taps his or her fingers during a test may be releasing tension and thus improving performance. Many people find it comforting to repeat religious or cultural rituals, such as touching a mezuzah, sprinkling holy water, or fingering rosary beads.

According to DSM-5, a diagnosis of obsessive-compulsive disorder is called for when obsessions or compulsions feel excessive or unreasonable, cause great distress, take up much time, and interfere with daily functions (see Table 5-10). Although obsessive-compulsive disorder is not classified as an anxiety disorder in DSM-5, anxiety does play a major role in this pattern. The obsessions cause intense anxiety, while the compulsions are aimed at preventing or reducing anxiety. In addition, anxiety rises if a person tries to resist his or her obsessions or compulsions.

An individual with this disorder observed: “I can’t get to sleep unless I am sure everything in the house is in its proper place so that when I get up in the morning, the house is organized. I work like mad to set everything straight before I go to bed, but, when I get up in the morning, I can think of a thousand things that I ought to do... I can’t stand to know something needs doing and I haven’t done it” (McNeil, 1967, pp. 26–28). Research indicates that several additional disorders are closely related to obsessive-compulsive disorder in their features, causes, and treatment responsiveness, and so, as you will soon see, DSM-5 has grouped them together with obsessive-compulsive disorder.

Between 1 and 2 percent of the people in the United States and other countries throughout the world suffer from obsessive-compulsive disorder in any given year (Kessler et al., 2012; Björgvinsson & Hart, 2008; Wetherell et al., 2006). As many as 3 percent develop the disorder at some point during their lives. It is equally common in men and women and among people of different races and ethnic groups (Matsunaga & Seedat, 2011). The disorder usually begins by young adulthood and typically persists for many years, although its symptoms and their severity may fluctuate over time (Angst et al., 2004). It is estimated that more than 40 percent of people with obsessive-compulsive disorder may seek treatment, many for an extended period (Patel et al., 2014; Kessler et al., 1999, 1994).

What Are the Features of Obsessions and Compulsions?

Obsessive thoughts feel both intrusive and foreign to the people who experience them. Attempts to ignore or resist these thoughts may arouse even more anxiety, and before long they come back more strongly than ever. People with obsessions typically are quite aware that their thoughts are excessive.

Obsessions often take the form of obsessive wishes (for example, repeated wishes that one’s spouse would die), impulses (repeated urges to yell out obscenities at work or in church), images (fleeting visions of forbidden sexual scenes), ideas (notions that germs are lurking everywhere), or doubts (concerns that one has made or will make a wrong decision). In the following excerpt, a clinician describes a 20-year-old college junior who was plagued by obsessive doubts.

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**figure 5-6**

Normal routines Most people find it comforting to follow set routines when they carry out everyday activities, and, in fact, 40 percent become irritated if they must depart from their routines. (Information from: Kanner, 2005, 1998, 1995.)

**table: 5-10**

Dx Checklist

**Obsessive-Compulsive Disorder**

1. Occurrence of repeated obsessions, compulsions, or both.

2. The obsessions or compulsions take up considerable time.

3. Significant distress or impairment.

He now spent hours each night “rehashing” the day’s events, especially interactions with friends and teachers, endlessly making “right” in his mind any and all regrets. He likened the process to playing a videotape of each event over and over again in his mind, asking himself if he had behaved properly and telling himself that he had done his best, or had said the right thing every step of the way. He would do this while sitting at his desk, supposedly studying; and it was not unusual for him to look at the clock after such a period of rumination and note that, to his surprise, two or three hours had elapsed.

(Spitzer et al., 1981, pp. 20–21)

Certain basic themes run through the thoughts of most people troubled by obsessive thinking (Bokor & Anderson, 2014; Abramowitz, McKay, & Taylor, 2008). The most common theme appears to be dirt or contamination (Torres et al., 2013; Tolin & Meunier, 2008). Other common ones are violence and aggression, orderliness, religion, and sexuality. The prevalence of such themes may vary from culture to culture (Matsunaga & Seedat, 2011). Religious obsessions, for example, seem to be more common in cultures or countries with strict moral codes and religious values (Björgvinsson & Hart, 2008).

Compulsions are similar to obsessions in many ways. For example, although compulsive behaviors are technically under voluntary control, the people who feel they must do them have little sense of choice in the matter. Most of these individuals recognize that their behavior is unreasonable, but they believe at the same time something terrible will happen if they don’t perform the compulsions. After performing a compulsive act, they usually feel less anxious for a short while. For some people the compulsive acts develop into detailed rituals. They must go through the ritual in exactly the same way every time, according to certain rules.

Like obsessions, compulsions take various forms. Cleaning compulsions are very common. People with these compulsions feel compelled to keep cleaning themselves, their clothing, or their homes. The cleaning may follow ritualistic rules and be repeated dozens or hundreds of times a day. People with checking compulsions check the same items over and over—door locks, gas taps, important papers—to make sure that all is as it should be (Coleman et al., 2011). Another common compulsion is the constant effort to seek order or balance (Coles & Pietrefesa, 2008). People with this compulsion keep placing certain items (clothing, books, foods) in perfect order in accordance with strict rules. Touching, verbal, and counting compulsions are also common.

Although some people with obsessive-compulsive disorder experience obsessions only or compulsions only, most experience both (Clark & Guyitt, 2008). In fact, compulsive acts are often a response to obsessive thoughts. One study found that in most cases, compulsions seemed to represent a yielding to obsessive doubts, ideas, or urges (Akhtar et al., 1975). A woman who keeps doubting that her house is secure may yield to that obsessive doubt by repeatedly checking locks and gas jets. Or a man who obsessively fears contamination may yield to that fear by performing cleaning rituals. The study also found that compulsions sometimes serve to help control obsessions. A teenager describes how she tried to control her obsessive fears of contamination by performing counting and verbal rituals:

**Cultural rituals**

Rituals do not necessarily reflect compulsions. Indeed, cultural and religious rituals often give meaning and comfort to their practitioners. Here Buddhist monks splash water over themselves during their annual winter prayers at a temple in Tokyo. This cleansing ritual is performed to pray for good luck.
Patient: If I heard the word, like, something that had to do with germs or disease, it would be considered something bad, and so I had things that would go through my mind that were sort of like “cross that out and it’ll make it okay” to hear that word.

Interviewer: What sort of things?

Patient: Like numbers or words that seemed to be sort of like a protector.

Interviewer: What numbers and what words were they?

Patient: It started out to be the number 3 and multiples of 3 and then words like “soap and water,” something like that; and then the multiples of 3 got really high, and they’d end up to be 124 or something like that. It got real bad then.

(Spitzer et al., 1981, p. 137)

Many people with obsessive-compulsive disorder worry that they will act out their obsessions. A man with obsessive images of wounded loved ones may worry that he is but a step away from committing murder, or a woman with obsessive urges to yell out in church may worry that she will one day give in to them and embarrass herself. Most such concerns are unfounded. Although many obsessions lead to compulsive acts—particularly to cleaning and checking compulsions—they usually do not lead to violence or immoral conduct.

Obsessive-compulsive disorder was once among the least understood of the psychological disorders. In recent decades, however, researchers have begun to learn more about it. The most influential explanations and treatments come from the psychodynamic, behavioral, cognitive, and biological models.

The Psychodynamic Perspective

As you have seen, psychodynamic theorists believe that an anxiety disorder develops when children come to fear their own id impulses and use ego defense mechanisms to lessen the resulting anxiety. What distinguishes obsessive-compulsive disorder from other anxiety disorders, in their view, is that here the battle between anxiety-provoking id impulses and anxiety-reducing defense mechanisms is not buried in the unconscious but is played out in overt thoughts and actions. The id impulses usually take the form of obsessive thoughts, and the ego defenses appear as counterthoughts or compulsive actions. A woman who keeps imagining her mother lying broken and bleeding, for example, may counter those thoughts with repeated safety checks throughout the house.

According to psychodynamic theorists, three ego defense mechanisms are particularly common in obsessive-compulsive disorder: isolation, undoing, and reaction formation. People who resort to isolation simply disown their unwanted thoughts and experience them as foreign intrusions. People who engage in undoing perform acts that are meant to cancel out their undesirable impulses. Those who wash their hands repeatedly, for example, may be symbolically undoing their unacceptable id impulses. People who develop a reaction formation take on a lifestyle that directly opposes their unacceptable impulses. A person may live a life of compulsive kindness and devotion to others in order to counter unacceptable aggressive impulses.

> isolation An ego defense mechanism in which people unconsciously isolate and disown undesirable and unwanted thoughts, experiencing them as foreign intrusions.

> undoing An ego defense mechanism whereby a person unconsciously cancels out an unacceptable desire or act by performing another act.

> reaction formation An ego defense mechanism whereby a person suppresses an unacceptable desire by taking on a lifestyle that expresses the opposite desire.

> exposure and response prevention A behavioral treatment for obsessive-compulsive disorder that exposes a client to anxiety-arousing thoughts or situations and then prevents the client from performing his or her compulsive acts. Also called exposure and ritual prevention.
Sigmund Freud traced obsessive-compulsive disorder to the anal stage of development (occurring at about 2 years of age). He proposed that during this stage some children experience intense rage and shame as a result of negative toilet-training experiences. Other psychodynamic theorists have argued instead that such early rage reactions are rooted in feelings of insecurity (Erikson, 1963; Sullivan, 1953; Horney, 1937). Either way, these children repeatedly feel the need to express their strong aggressive id impulses while at the same time knowing they should try to restrain and control the impulses. If this conflict between the id and ego continues, it may eventually blossom into obsessive-compulsive disorder. Overall, research has not clearly supported the psychodynamic explanation (Busch et al., 2010; Fitz, 1990).

When treating patients with obsessive-compulsive disorder, psychodynamic therapists try to help the individuals uncover and overcome their underlying conflicts and defenses, using the customary techniques of free association and therapist interpretation. Research has offered little evidence, however, that a traditional psychodynamic approach is of much help (Bram & Björgvinsson, 2004). Thus some psychodynamic therapists now prefer to treat these patients with short-term psychodynamic therapies, which, as you saw in Chapter 3, are more direct and action-oriented than the classical techniques.

The Behavioral Perspective

Behaviorists have concentrated on explaining and treating compulsions rather than obsessions. They propose that people happen upon their compulsions quite randomly. In a fearful situation, they happen just coincidentally to wash their hands, say, or dress a certain way. When the threat lifts, they link the improvement to that particular action. After repeated accidental associations, they believe that the action is bringing them good luck or actually changing the situation, and so they perform the same actions again and again in similar situations. The act becomes a key method of avoiding or reducing anxiety (Grayson, 2014; Frost & Steketee, 2001).

The famous clinical scientist Stanley Rachman and his associates have shown that compulsions do appear to be rewarded by a reduction in anxiety. In one of their experiments, for example, 12 research participants with compulsive hand-washing rituals were placed in contact with objects that they considered contaminated (Hodgson & Rachman, 1972). As behaviorists would predict, the hand-washing rituals of these participants seemed to lower their anxiety.

If people keep performing compulsive behaviors in order to prevent bad outcomes and ensure positive outcomes, can’t they be taught that such behaviors are not really serving this purpose? In a behavioral treatment called exposure and response prevention (or exposure and ritual prevention), first developed by psychiatrist Victor Meyer (1966), clients are repeatedly exposed to objects or situations that produce anxiety, obsessive fears, and compulsive behaviors, but they are told to resist performing the behaviors they feel so bound to perform. Because people find it very difficult to resist such behaviors, therapists may set an example first.

Many behavioral therapists now use exposure and response prevention in both individual and group therapy formats. Some of them also have people carry out self-help procedures at home (Franklin & Foa, 2014; Abramowitz et al., 2011; Simpson...
et al., 2011). That is, they assign homework in exposure and response prevention, such as these assignments given to a woman with a cleaning compulsion:

- Do not mop the floor of your bathroom for a week. After this, clean it within three minutes, using an ordinary mop. Use this mop for other chores as well without cleaning it.
- Buy a fluffy mohair sweater and wear it for a week. When taking it off at night do not remove the bits of fluff. Do not clean your house for a week.
- You, your husband, and children all have to keep shoes on. Do not clean the house for a week.
- Drop a cookie on the contaminated floor, pick the cookie up and eat it.
- Leave the sheets and blankets on the floor and then put them on the beds. Do not change these for a week.

(Emmelkamp, 1982, pp. 299–300)

Eventually this woman was able to set up a reasonable routine for cleaning herself and her home.

Between 55 and 85 percent of clients with obsessive-compulsive disorder have been found to improve considerably with exposure and response prevention, improvements that often continue indefinitely (Abramowitz et al., 2011, 2008; McKay, Taylor, & Abramowitz, 2010). The effectiveness of this approach suggests that people with this disorder are like the superstitious man in the old joke who keeps snapping his fingers to keep elephants away. When someone points out, “But there aren’t any elephants around here,” the man replies, “See? It works!” One review concludes, “With hindsight, it is possible to see that the [obsessive-compulsive] individual has been snapping his fingers, and unless he stops (response prevention) and takes a look around at the same time (exposure), he isn’t going to learn much of value about elephants” (Berk & Efran, 1983, p. 546).

At the same time, research has revealed key limitations in exposure and response prevention. Few clients who receive the treatment overcome all their symptoms, and as many as one-quarter fail to improve at all (Franklin & Foa, 2014; Frost & Steketee, 2001). Also, the approach is of limited help to those who have obsessions but no compulsions (Hohagen et al., 1998).

The Cognitive Perspective

Cognitive theorists begin their explanation of obsessive-compulsive disorder by pointing out that everyone has repetitive, unwanted, and intrusive thoughts. Anyone might have thoughts of harming others or being contaminated by germs, for example, but most people dismiss or ignore them with ease. Those who develop this disorder, however, typically blame themselves for such thoughts and expect that somehow terrible things will happen (Grayson, 2014; Shafran, 2005; Salkovskis, 1999, 1985). To avoid such negative outcomes, they try to neutralize the thoughts—thinking or behaving in ways meant to put matters right or to make amends (Jacob, Larson, & Storch, 2014; Salkovskis et al., 2003).

Neutralizing acts might include requesting special reassurance from others, deliberately thinking “good” thoughts, washing one’s hands, or checking for possible sources of danger. When a neutralizing effort brings about a temporary reduction in discomfort, it is reinforced and will likely be repeated. Eventually the neutralizing thought or act is used so often that it becomes, by definition, an obsession or compulsion. At the same time, the individual becomes more and more convinced that his or her unpleasant intrusive thoughts are dangerous. As the person’s fear of such thoughts increases, the thoughts begin to occur more frequently and they, too, become obsessions.
In support of this explanation, studies have found that people with obsessive-compulsive disorder have intrusive thoughts more often than other people, resort to more elaborate neutralizing strategies, and experience reductions in anxiety after using neutralizing techniques (Jacob et al., 2014; Shafran, 2005; Salkovskis et al., 2003).

Although everyone sometimes has undesired thoughts, only some people develop obsessive-compulsive disorder. Why do these individuals find such normal thoughts so disturbing to begin with? Researchers have found that this population tends (1) to be more depressed than other people (Klenfeldt et al., 2014; Hong et al., 2004), (2) to have exceptionally high standards of conduct and morality (Whitton, Henry, & Grisham, 2014; Rachman, 1993), (3) to have an inflated sense of responsibility in life and believe that their intrusive negative thoughts are equivalent to actions and capable of causing harm (Lawrence & Williams, 2011; Steketee et al., 2003), and (4) generally to believe that they should have perfect control over all of their thoughts and behaviors (Gelfand & Radomsky, 2013; Coles et al., 2005).

Cognitive therapists help clients focus on the cognitive processes involved in their obsessive-compulsive disorder. Initially, they educate the clients, pointing out how misinterpretations of unwanted thoughts, an excessive sense of responsibility, and neutralizing acts help produce and maintain their symptoms. The therapists then guide the clients to identify, challenge, and change their distorted cognitions. It appears that cognitive techniques of this kind often help reduce the number and impact of obsessions and compulsions (Franklin & Foa, 2014; Rufer et al., 2005).

While the behavioral approach (exposure and response prevention) and the cognitive approach have each been of help to clients with obsessive-compulsive disorder, some research suggests that a combination of the two approaches is often more effective than either intervention alone (Grayson, 2014; McKay et al., 2010; Sookman & Steketee, 2010). In such cognitive-behavioral treatments, clients are first taught to view their obsessive thoughts as inaccurate occurrences rather than as valid and dangerous cognitions for which they are responsible and upon which they must act. As they become better able to identify and recognize the thoughts for what they are, they also become less inclined to act on them, more willing to subject themselves to the rigors of exposure and response prevention, and more likely to make gains using that behavioral technique.

The Biological Perspective

Family pedigree studies provided the earliest clues that obsessive-compulsive disorder may be linked in part to biological factors (Lambert & Kinsley, 2010). Studies of twins found that if one identical twin has this disorder, the other twin also develops it in 53 percent of cases. In contrast, among fraternal twins (twins who share half rather than all of their genes), both twins display the disorder in only 23 percent of the cases. In short, the more similar the gene composition of two individuals, the more likely both are to experience obsessive-compulsive disorder, if indeed one of them displays the disorder.

In recent years, two lines of research have uncovered more direct evidence that biological factors play a key role in obsessive-compulsive disorder, and promising biological treatments for the disorder have been developed as well. This research points to (1) abnormally low activity of the neurotransmitter serotonin and (2) abnormal functioning in key regions of the brain.

Abnormal Serotonin Activity Serotonin, like GABA and norepinephrine, is a brain chemical that carries messages from neuron to neuron. The first clue to its role in obsessive-compulsive disorder was, once again, a surprising finding by clinical researchers—this time that two antidepressant drugs, clomipramine and
fluoxetine (Anafranil and Prozac), reduce obsessive and compulsive symptoms (Bokor & Anderson, 2014; Stein & Fineberg, 2007). Since these particular drugs increase serotonin activity, some researchers concluded that the disorder might be caused by low serotonin activity. In fact, only those antidepressant drugs that increase serotonin activity help in cases of obsessive-compulsive disorder; antidepressants that mainly affect other neurotransmitters typically have little or no effect on it (Jenike, 1992).

Although serotonin is the neurotransmitter most often cited in explanations of obsessive-compulsive disorder, recent studies have suggested that other neurotransmitters, particularly glutamate, GABA, and dopamine, may also play important roles in the development of the disorder (Bokor & Anderson, 2014; Spooren et al., 2010). Some researchers even argue that, with regard to obsessive-compulsive disorder, serotonin may act largely as a neuromodulator, a chemical whose primary function is to increase or decrease the activity of other key neurotransmitters.

Abnormal Brain Structure and Functioning Another line of research has linked obsessive-compulsive disorder to the abnormal functioning of specific regions of the brain, particularly the orbitofrontal cortex (just above each eye) and the caudate nuclei (structures located within the brain region known as the basal ganglia). These regions are part of a brain circuit that usually converts sensory information into thoughts and actions (Craig & Chamberlain, 2010; Stein & Fineberg, 2007). The circuit begins in the orbitofrontal cortex, where sexual, violent, and other primitive impulses normally arise. These impulses next move on to the caudate nuclei, which act as filters that send only the most powerful impulses on to the thalamus, the next stop on the circuit (see Figure 5-7). If impulses reach the thalamus, the person is driven to think further about them and perhaps to act. Many theorists now believe that either the orbitofrontal cortex or the caudate nuclei of some people are too active, leading to a constant eruption of troublesome thoughts and actions (Endrass et al., 2011; Lambert & Kinsley, 2010). Additional parts of this brain circuit have also been identified in recent years, including the cingulate cortex and, yet again, the amygdala (Via et al., 2014; Stein & Fineberg, 2007). It may turn out that these regions also play key roles in obsessive-compulsive disorder.

In support of this brain circuit explanation, medical scientists have observed for years that obsessive-compulsive symptoms do sometimes arise or subside after the orbitofrontal cortex, caudate nuclei, or other regions in the circuit are damaged by accident or illness (Hofer et al., 2013; Coetzer, 2004). Similarly, brain scan studies have shown that the caudate nuclei and the orbitofrontal cortex of research participants with obsessive-compulsive disorder are more active than those of control participants (Marsh et al., 2014; Baxter et al., 2001, 1990). Some research further suggests that the serotonin and brain circuit abnormalities that characterize obsessive-compulsive disorder are at least partly the result of genetic inheritance (Nicolini et al., 2011).

The serotonin and brain circuit explanations may themselves be linked. It turns out that serotonin—along with the neurotransmitters glutamate, GABA, and dopamine—plays a key role in the operation of the orbitofrontal cortex, caudate nuclei, and other parts of the brain circuit; certainly abnormal activity by one or more of these neurotransmitters could be contributing to the improper functioning of the circuit.
Biological Therapies Ever since researchers first discovered that particular antidepressant drugs help to reduce obsessions and compulsions, these drugs have been used to treat obsessive-compulsive disorder (Bokor & Anderson, 2014; Simpson, 2010). We now know that the drugs not only increase brain serotonin activity but also help produce more normal activity in the orbitofrontal cortex and caudate nuclei (McCabe & Mishor, 2011; Stein & Fineberg, 2007). Studies have found that clomipramine (Anafranil), fluoxetine (Prozac), fluvoxamine (Luvox), and similar antidepressant drugs bring improvement to between 50 and 80 percent of those with obsessive-compulsive disorder (Bareggi et al., 2004). The obsessions and compulsions do not usually disappear totally, but on average they are cut almost in half within 8 weeks of treatment (DeVeauigh–Geiss et al., 1992). People who are treated with such drugs alone, however, tend to relapse if their medication is stopped. Thus, more and more individuals with obsessive-compulsive disorder are now being treated by a combination of behavioral, cognitive, and drug therapies. According to research, such combinations often yield higher levels of symptom reduction and bring relief to more clients than do each of the approaches alone—improvements that may continue for years (Romanelli et al., 2014; Simpson et al., 2013).

Obviously, the treatment picture for obsessive-compulsive disorder has improved greatly over the past 15 years, and indeed, this disorder is now helped by several forms of treatment, often used in combination. In fact, some studies suggest that the behavioral, cognitive, and biological approaches may ultimately have the same effect on the brain. In these investigations, both participants who responded to cognitive-behavioral treatments and those who responded to antidepressant drugs showed marked reductions in activity in the caudate nuclei and other parts of the obsessive-compulsive brain circuit (Jabr, 2013; Freyer et al., 2011; Baxter et al., 2000, 1992).

Obsessive-Compulsive-Related Disorders: Finding a Diagnostic Home

Many people perform particular patterns of repetitive and excessive behavior that greatly disrupt their lives. Among the most common such patterns are excessive appearance-checking, hoarding, hair-pulling, skin-picking, shopping, exercising, video game-playing, and sex. Over the years, clinicians have tried to figure out how to best think about and classify these patterns. At various times, the disorders have been called “excessive behaviors,” “repetitive behaviors,” “habit disorders,” “addictions,” and “impulse-control disorders.” In recent years, however, a growing number of clinical researchers have linked the patterns to obsessive-compulsive disorder, based on the driven nature of the behaviors and the obsessive-like concerns that typically trigger the behaviors. They have used the term “obsessive-compulsive spectrum disorders” to describe such patterns (Hollander et al., 2011).

Following the lead of these researchers, DSM-5 has created the group name obsessive-compulsive-related disorders and assigned four of these patterns to that group: hoarding disorder, trichotillomania (hair-pulling disorder), excoriation (skin-picking) disorder, and body dysmorphic disorder. Collectively, these four disorders are displayed by at least 5 percent of all people (Frost et al., 2012; Keuthen et al., 2012, 2010; Wolrich, 2011; Duke et al., 2009).
hoarding disorder A disorder in which individuals feel compelled to save items and become very distressed if they try to discard them, resulting in an excessive accumulation of items.

trichotillomania A disorder in which people repeatedly pull out hair from their scalp, eyebrows, eyelashes, or other parts of the body. Also called hair-pulling disorder.

excortiation disorder A disorder in which people repeatedly pick at their skin, resulting in significant sores or wounds. Also called skin-picking disorder.

body dysmorphic disorder A disorder in which individuals become preoccupied with the belief that they have certain defects or flaws in their physical appearance. Such defects or flaws are imagined or greatly exaggerated.

People who display hoarding disorder feel that they must save items, and they become very distressed if they try to discard them (APA, 2013). These feelings make it difficult for them to part with possessions, resulting in an extraordinary accumulation of items that clutters their lives and living areas (see Table 5-11). This pattern causes the individuals significant distress and may greatly impair their personal, social, or occupational functioning (Jabr, 2013; Frost et al., 2012; Mataix-Cols & Pertusa, 2012). It is common for them to wind up with numerous useless and valueless items, from junk mail to broken objects to unused clothes. Parts of their homes may become inaccessible because of the clutter. For example, sofas, kitchen appliances, or beds may be unusable. In addition, the pattern often results in fire hazards, unhealthful sanitation conditions, or other dangers.

People with trichotillomania, also known as hair-pulling disorder, repeatedly pull out hair from their scalp, eyebrows, eyelashes, or other parts of the body (see again Table 5-11) (APA, 2013). The disorder usually centers on just one or two of these body sites, most often the scalp. Typically, those with the disorder pull one hair at a time. It is common for anxiety or stress to trigger or accompany the hair-pulling behavior. Some sufferers follow specific rituals as they pull their hair, including pulling until the hair feels “just right” and selecting certain types of hairs for pulling (Keuthen et al., 2012; Mansueto & Rogers, 2012). Because of the distress, impairment, or embarrassment caused by this behavior, the individuals often try to reduce or stop the hair-pulling. The term “trichotillomania” is derived from the Greek for “frenzied hair-pulling.”

People with excoriation (skin-picking) disorder keep picking at their skin, resulting in significant sores or wounds (APA, 2013). Like those with hair-pulling disorder, they often try to reduce or stop the behavior. Most sufferers pick with their fingers and center their picking on one area, most often the face (Grant et al., 2012; Odlaug & Grant, 2012). Other common areas of focus include the arms, legs, lips, scalp, chest, and extremities such as fingernails and cuticles. The behavior is typically triggered or accompanied by anxiety or stress.

People with body dysmorphic disorder become preoccupied with the belief that they have a particular defect or flaw in their physical appearance (see again Table 5-11). Actually, the perceived defect or flaw is imagined or greatly exaggerated in the person’s mind (APA, 2013). Such beliefs drive the individuals to repeatedly check themselves in the mirror, groom themselves, pick at the perceived flaw, compare themselves with others, seek reassurance, or perform other, similar behaviors. Here too, those with the problem experience significant distress or impairment.

Body dysmorphic disorder is the obsessive-compulsive-related disorder that has received the most study to date. Researchers have found that, most often, individuals with this problem focus on wrinkles; spots on the skin; excessive facial hair; swelling of the face; or a misshapen nose, mouth, jaw, or eyebrow (Week et al., 2012; Marques et al., 2011). Some worry about the appearance of their feet, hands, breasts, penis, or other body parts (see PsychWatch on page 173). Still others, like the woman described here, are concerned about bad odors coming from sweat, breath, genitals, or the rectum (Rocca et al., 2010).
A woman of 35 had for 16 years been worried that her sweat smelled terrible. . . . For fear that she smelled, for 5 years she had not gone out anywhere except when accompanied by her husband or mother. She had not spoken to her neighbors for 3 years . . . . She avoided cinemas, dances, shops, cafes, and private homes. . . . Her husband was not allowed to invite any friends home; she constantly sought reassurance from him about her smell . . . . Her husband bought all her new clothes as she was afraid to try on clothes in front of shop assistants. She used vast quantities of deodorant and always bathed and changed her clothes before going out, up to 4 times daily.

(Marks, 1987, p. 371)

Of course, it is common in our society to worry about appearance (see Figure 5-8). Many teenagers and young adults worry about acne, for instance. The concerns of people with body dysmorphic disorder, however, are extreme. Sufferers may severely limit contact with other people, be unable to look others in the eye, or go to great lengths to conceal their “defects”—say, always wearing sunglasses to cover their supposedly misshapen eyes (Didie et al., 2010; Phillips, 2005). As many as half of people with the disorder seek plastic surgery or dermatology treatment, and often they feel worse rather than better afterward (McKay et al., 2008). A large number are housebound, and more than 10 percent may attempt suicide (Buhlmann et al., 2010; Phillips et al., 1993).

<table>
<thead>
<tr>
<th>People who would change something about their appearance if they could</th>
<th>99%</th>
</tr>
</thead>
<tbody>
<tr>
<td>People who daydream about being beautiful or handsome</td>
<td>93%</td>
</tr>
<tr>
<td>People who think that the cosmetics industry is very important or essential to our country</td>
<td>16%</td>
</tr>
<tr>
<td>People who wear uncomfortable shoes because they look good</td>
<td>17%</td>
</tr>
<tr>
<td>People who wear uncomfortable shoes because they look good</td>
<td>42%</td>
</tr>
<tr>
<td>People who are dissatisfied with general appearance of their teeth</td>
<td>35%</td>
</tr>
<tr>
<td>People who have brushed their teeth twice in the last 24 hours</td>
<td>22%</td>
</tr>
<tr>
<td>People who have flossed their teeth in the last 24 hours</td>
<td>18%</td>
</tr>
<tr>
<td>People who have flossed their teeth in the last 24 hours</td>
<td>20%</td>
</tr>
<tr>
<td>People who have flossed their teeth in the last 24 hours</td>
<td>30%</td>
</tr>
<tr>
<td>People who have stuffed their bras (women) or shorts (men)</td>
<td>8%</td>
</tr>
<tr>
<td>People who have colored their hair</td>
<td>27%</td>
</tr>
</tbody>
</table>

Between the Lines

Looking Good

- Surgeons report a 31% increase in plastic surgery requests as a result of patients wanting to look good on social media.
- Cosmetic surgery now accounts for 73% of all plastic surgery operations, a rise from 62% a year ago.

(Sifferlin, 2013)
As with the other obsessive-compulsive-related disorders, theorists typically account for body dysmorphic disorder by using the same kinds of explanations, both psychological and biological, that have been applied to obsessive-compulsive disorder (Witthöft & Hiller, 2010). Similarly, clinicians typically treat clients with this disorder by applying the kinds of treatment used with obsessive-compulsive disorder, particularly antidepressant drugs, exposure and response prevention, and cognitive therapy (Krebs et al., 2012; Phillips & Rogers, 2011).

In one study, for example, 17 clients with this disorder were treated with exposure and response prevention. Over the course of 4 weeks, the clients were repeatedly reminded of their perceived physical defects and, at the same time, prevented from doing anything to help reduce their discomfort (such as checking their appearance) (Neziroglu et al., 2004, 1996). By the end of treatment, these individuals were less concerned with their “defects” and spent less time checking their body parts and avoiding social interactions.

Now that the body dysmorphic, hoarding, hair-pulling, and excoriation disorders are being grouped together in DSM-5 along with obsessive-compulsive disorder, it is hoped that they will be better researched, understood, and treated (Snowdon et al., 2012). The DSM-5 task force determined that the other excessive patterns (for example, shopping or sexual activity) need further study before a decision can be made about their inclusion in this same group.

**PUTTING IT...together**

**Diathesis-Stress in Action**

Clinicians and researchers have developed many ideas about generalized anxiety disorder, phobias, panic disorder, and obsessive-compulsive disorder. At times, however, the sheer quantity of concepts and findings makes it difficult to grasp what is really known about the disorders.

Overall, it is fair to say that clinicians currently know more about the causes of phobias, panic disorder, and obsessive-compulsive disorder than about generalized anxiety disorder and social anxiety disorder. It is worth noting that the insights about panic disorder and obsessive-compulsive disorder—once among the field’s most puzzling patterns—did not emerge until clinical theorists took a look at the disorders from more than one perspective and integrated those views. Today’s cognitive explanation of panic disorder, for example, builds squarely on the biological theorists’ idea that the disorder begins with abnormal brain activity and unusual physical sensations. Similarly, the cognitive explanation of obsessive-compulsive disorder takes its lead from the biological position that some people are predisposed to having more unwanted and intrusive thoughts than others do.

It may be that a fuller understanding of generalized anxiety disorder and social anxiety disorder awaits a similar integration of the various models. In fact, such integrations have already begun. Recall, for example, that one of the new-wave cognitive explanations for generalized anxiety disorder links the cognitive process of worrying to heightened bodily arousal in people with the disorder.
Anxiety, Obsessive-Compulsive, and Related Disorders

Similarly, a growing number of theorists are adopting a diathesis-stress view of generalized anxiety disorder. They believe that certain individuals have a biological vulnerability toward developing the disorder—a vulnerability that is eventually brought to the surface by psychological and sociocultural factors. Indeed, genetic investigators have discovered that certain genes may determine whether a person reacts to life’s stressors calmly or in a tense manner, and developmental researchers have found that even during the earliest stages of life some infants become particularly aroused when stimulated (Burijon, 2007; Kalin, 1993). Perhaps these easily aroused infants have inherited defects in GABA functioning or other biological limitations that predispose them to generalized anxiety disorder. If, over the course of their lives, they also face intense societal pressures, learn to interpret the world as a dangerous place, or come to regard worrying as a useful tool, they may be candidates for developing generalized anxiety disorder.

In the treatment realm, integration of the models is already on display for each of the anxiety disorders and for obsessive-compulsive disorder. Therapists have discovered, for example, that treatment is at least sometimes more effective when medications are combined with cognitive techniques to treat panic disorder and when medications are combined with cognitive-behavioral techniques to treat obsessive-compulsive disorder. Similarly, cognitive techniques are often combined with relaxation training or biofeedback in the treatment of generalized anxiety disorder—a treatment package known as a stress-management program. For the millions of people who suffer from these various anxiety disorders, such treatment combinations are a welcome development.

PsychWatch

Beauty Is in the Eye of the Beholder

People almost everywhere want to be attractive, and they tend to worry about how they appear in the eyes of others. At the same time, these concerns take different forms in different cultures. Whereas people in Western society worry in particular about their body size and facial features, women of the Padaung tribe in Myanmar focus on the length of their neck and wear heavy stacks of brass rings to try to extend it. Many of them seek desperately to achieve what their culture has taught them is the perfect neck size. Said one, “It is most beautiful when the neck is really long... I will never take off my rings... I’ll be buried in them” (Mydans, 1996).

Similarly, for centuries women of China, in response to the preferences of men in that country, worried greatly about the size and appearance of their feet and practiced foot binding to stop the growth of these extremities (Wang Ping, 2000). In this procedure, which began in the year 900 and was widely practiced until it was outlawed in 1911, young girls were instructed to wrap a long bandage tightly around their feet each day, forcing the four toes under the sole of the foot. The procedure, which was carried out for about 2 years, caused the feet to become narrower and smaller. Typically the practice led to serious medical problems and poor mobility, but it did produce the small feet that were considered attractive.

Western society also falls victim to such cultural influences. Recent decades have witnessed staggering increases in such procedures as rhinoplasty (reshaping of the nose), breast augmentation, and body piercing—all reminders that cultural values greatly influence each person’s ideas and concerns about beauty, and in some cases may set the stage for body dysmorphic disorder.

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SUMMING UP

➤ GENERALIZED ANXIETY DISORDER People with generalized anxiety disorder experience excessive anxiety and worry about a wide range of events and activities. The various explanations and treatments for this anxiety disorder have received only limited research support, although recent cognitive and biological approaches seem to be promising.

According to the sociocultural view, societal dangers, economic stress, or related racial and cultural pressures may create a climate in which cases of generalized anxiety disorder are more likely to develop.

In the original psychodynamic explanation, Freud said that generalized anxiety disorder may develop when anxiety is excessive and defense mechanisms break down and function poorly. Psychodynamic therapists use free association, interpretation, and related psychodynamic techniques to help people overcome this problem.

Carl Rogers, the leading humanistic theorist, believed that people with generalized anxiety disorder fail to receive unconditional positive regard from significant others during their childhood and so become overly critical of themselves. He treated such individuals with client-centered therapy.

Cognitive theorists believe that generalized anxiety disorder is caused by maladaptive assumptions and beliefs that lead people to view most life situations as dangerous. Many cognitive theorists further believe that implicit beliefs about the power and value of worrying are particularly important in the development and maintenance of this disorder. Cognitive therapists help their clients to change such thinking and to find more effective ways of coping during stressful situations.

Biological theorists hold that generalized anxiety disorder results from low activity of the neurotransmitter GABA. Common biological treatments are antianxiety drugs, particularly benzodiazepines, and serotonin-enhancing antidepressant drugs. Relaxation training and biofeedback are also applied in many cases. pp. 130–143

➤ PHOBIAS A phobia is a severe, persistent, and unreasonable fear of a particular object, activity, or situation. There are two main categories of phobia: specific phobias (persistent fears of specific objects or situations) and agoraphobia (fear of being in public places or situations in which escape might be difficult if one should experience panic or become incapacitated). Behaviorists believe that phobias are often learned from the environment through classical conditioning or through modeling, and then are maintained by avoidance behaviors.

Specific phobias have been treated most successfully with behavioral exposure techniques by which people are led to confront the objects they fear. The exposure may be gradual and relaxed (desensitization), intense (flooding), or vicarious (modeling). Agoraphobia is also treated effectively by exposure therapy. However, for people with both agoraphobia and panic disorder, exposure therapy alone is not as effective. pp. 143–152

➤ SOCIAL ANXIETY DISORDER People with social anxiety disorder experience severe and persistent anxiety about social or performance situations in which they may be scrutinized by others or be embarrassed. Cognitive theorists believe that the disorder is particularly likely to develop among people who hold and act on certain dysfunctional social beliefs and expectations.

Therapists who treat social anxiety disorder typically distinguish two components of this disorder: social fears and poor social skills. They try to reduce social fears by drug therapy, exposure techniques, group therapy,
Anxiety, Obsessive-Compulsive, and Related Disorders

various cognitive approaches, or a combination of these interventions. They may try to improve social skills by social skills training. pp. 152–157

■ PANIC DISORDER Panic attacks are periodic, discrete bouts of panic that occur suddenly. Sufferers of panic disorder experience panic attacks repeatedly and unexpectedly and without apparent reason. Panic disorder may be accompanied by agoraphobia in some cases, leading to two diagnoses.

Some biological theorists believe that abnormal norepinephrine activity in the brain’s locus coeruleus may be central to panic disorder. Others believe that related neurotransmitters or a panic brain circuit may also play key roles. Biological therapists use certain antidepressant drugs or powerful benzodiazepines to treat people with this disorder.

Cognitive theorists suggest that panic-prone people become preoccupied with some of their bodily sensations, misinterpret them as signs of medical catastrophe, panic, and in some cases develop panic disorder. Such persons have a high degree of anxiety sensitivity and also experience greater anxiety during biological challenge tests. Cognitive therapists teach patients to interpret their physical sensations more accurately and to cope better with anxiety. pp. 157–161

■ OBSESSIVE-COMPULSIVE DISORDER People with obsessive-compulsive disorder are beset by obsessions, perform compulsions, or both. Compulsions are often a response to a person’s obsessive thoughts.

According to the psychodynamic view, obsessive-compulsive disorder arises out of a battle between id impulses, which appear as obsessive thoughts, and ego defense mechanisms, which take the form of counterthoughts or compulsive actions. Behaviorists believe that compulsive behaviors develop through chance associations. The leading behavioral treatment combines prolonged exposure with response prevention. Cognitive theorists believe that obsessive-compulsive disorder grows from a normal human tendency to have unwanted and unpleasant thoughts. The efforts of some people to understand, eliminate, or avoid such thoughts actually lead to obsessions and compulsions. Cognitive therapy for this disorder includes psychoeducation and, at times, habituation training. While the behavioral and cognitive therapies are each helpful to clients with obsessive-compulsive disorder, research suggests that a combined cognitive-behavioral approach may be more effective than either therapy alone.

Biological researchers have tied obsessive-compulsive disorder to low serotonin activity and abnormal functioning in the orbitofrontal cortex and in the caudate nuclei. Antidepressant drugs that raise serotonin activity are a useful form of treatment.

In addition to obsessive-compulsive disorder, DSM-5 lists a group of obsessive-compulsive-related disorders, disorders in which obsessive-like concerns drive individuals to repeatedly and excessively perform specific patterns of behavior that greatly disrupt their lives. This group consists of hoarding disorder, trichotillomania, excoriation (skin-picking) disorder, and body dysmorphic disorder. pp. 161–172

BETWEEN THE LINES

Top-Grossing Fear Movies of the Twenty-First Century

- Twilight series
- Paranormal Activity series
- Scream series
- The Grudge series
- Van Helsing
- The Mummy series
- Jurassic Park series
- Signs
- King Kong
- The Ring

Visit LaunchPad www.macmillanhighered.com/launchpad/comerabpsych9e to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
Disorders of Trauma and Stress

Specialist Latrell Robinson, a 25-year-old single African American man, was an activated National Guardsman [serving in the Iraq war]. He [had been] a full-time college student and competitive athlete raised by a single mother in public housing. . . Initially trained in transportation, he was called to active duty and retrained as a military policeman to serve with his unit in Baghdad. He described enjoying the high intensity of his deployment and [became] recognized by others as an informal leader because of his aggressiveness and self-confidence. He [had] numerous [combat] exposures while performing convoy escort and security details [and he came] under small arms fire on several occasions, witnessing dead and injured civilians and Iraqi soldiers and on occasion feeling powerless when forced to detour or take evasive action. He began to develop increasing mistrust of the [Iraq] environment as the situation “on the street” seemed to deteriorate. He often felt that he and his fellow soldiers were placed in harm’s way needlessly.

On a routine convoy mission [in 2003], serving as driver for the lead HUMVEE, his vehicle was struck by an Improvised Explosive Device showering him with shrapnel in his neck, arm, and leg. Another member of his vehicle was even more seriously injured. . . He was evacuated to the Combat Support Hospital (CSH) where he was treated and returned to duty . . . after several days despite requiring crutches and suffering chronic pain from retained shrapnel in his neck. He began to become angry at his command and doctors for keeping him in [Iraq] while he was unable to perform his duties effectively. He began to develop insomnia, hypervigilance, and a startle response. His initial dreams of the event became more intense and frequent and he suffered intrusive thoughts and flashbacks of the attack. He began to withdraw from his friends and suffered anhedonia, feeling detached from others, and he feared his future would be cut short. He was referred to a psychiatrist at the CSH. . .

After two months of unsuccessful rehabilitation for his battle injuries and worsening depressive and anxiety symptoms, he was evacuated to a . . . military medical center [in the United States]. . . He was screened for psychiatric symptoms and was referred for outpatient evaluation and management. He met . . . criteria for acute PTSD and was offered medication management, supportive therapy, and group therapy. . . He was ambivalent about taking passes or convalescent leave to his home because of fears of being “different, irritated, or aggressive” around his family or girlfriend. After three months at the military service center, he was [deactivated from service and] referred to his local VA Hospital to receive follow-up care.

(National Center for PTSD, 2008)

During the horror of combat, soldiers often become highly anxious and depressed, confused and disoriented, even physically ill. Moreover, for many, like Latrell, these and related reactions to extraordinary stress or trauma continue well beyond the combat experience itself.

Of course, it is not just combat soldiers who are affected by stress. Nor does stress have to rise to the level of combat trauma to have a profound effect on psychological and physical functioning. Stress comes in all sizes and shapes, and we are all greatly affected by it.

We feel some degree of stress whenever we are faced with demands or opportunities that require us to change in some manner. The state of stress has two components: a stressor, the event that creates the demands, and a stress response, the person’s reactions to the demands. The stressors of life may include
annoying everyday hassles, such as rush-hour traffic; turning-point events, such as college graduation or marriage; long-term problems, such as poverty or poor health; or traumatic events, such as major accidents, assaults, tornadoes, or military combat. Our response to such stressors is influenced by the way we judge both the events and our capacity to react to them in an effective way (Biron & Link, 2014; Smith & Kirby, 2011; Lazarus & Folkman, 1984). People who sense that they have the ability and the resources to cope are more likely to take stressors in stride and to respond well.

When we view a stressor as threatening, a natural reaction is arousal and a sense of fear—a response frequently discussed in Chapter 5. As you saw in that chapter, fear is actually a package of responses that are physical, emotional, and cognitive. Physically, we perspire, our breathing quickens, our muscles tense, and our heart beats faster. Turning pale, developing goose bumps, and feeling nauseated are other physical reactions. Emotional responses to extreme threats include horror, dread, and even panic, while in the cognitive realm fear can disturb our ability to concentrate and remember and may distort our view of the world. We may, for example, remember things incorrectly or exaggerate the harm that actually threatens us.

Stress reactions, and the sense of fear they produce, are often at play in psychological disorders. People who experience a large number of stressful events are particularly vulnerable to the onset of the anxiety disorders that you read about in Chapter 5. Similarly, increases in stress have been linked to the onset of depression, schizophrenia, sexual dysfunctioning, and other psychological problems.

Extraordinary stress and trauma play an even more central role in certain psychological disorders. In these disorders, the reactions to stress become severe and debilitating, linger for a long period of time, and may make it impossible for the individual to live a normal life. Under the heading “Trauma- and Stressor-Related Disorders,” DSM-5 lists several disorders in which trauma and extraordinary stress trigger a wide range of stress symptoms, including heightened arousal, anxiety and mood problems, memory and orientation difficulties, and behavioral disturbances. Two of these disorders, acute stress disorder and posttraumatic stress disorder, are discussed in this chapter. In addition, DSM-5 lists the “dissociative disorders,” a group of disorders also triggered by traumatic events, in which the primary symptoms are severe memory and orientation problems. These disorders—dissociative amnesia, dissociative identity disorder (multiple personality disorder), and depersonalization-derealization disorder—are also examined in this chapter.

To fully understand these various stress-related disorders, it is important to appreciate the precise nature of stress and how the brain and body typically react to stress. Thus let’s first discuss stress and arousal, then move on to discussions of acute and posttraumatic stress disorders and the dissociative disorders.
Stress and Arousal: The Fight-or-Flight Response

The features of arousal and fear are set in motion by the brain area called the hypothalamus. When our brain interprets a situation as dangerous, neurotransmitters in the hypothalamus are released, triggering the firing of neurons throughout the brain and the release of chemicals throughout the body. Actually, the hypothalamus activates two important systems—the autonomic nervous system and the endocrine system (Lundberg, 2011). The autonomic nervous system (ANS) is the extensive network of nerve fibers that connect the central nervous system (the brain and spinal cord) to all the other organs of the body. These fibers help control the involuntary activities of the organs—breathing, heartbeat, blood pressure, perspiration, and the like (see Figure 6-1). The endocrine system is the network of glands located throughout the body. (As you read in Chapter 3, glands release hormones into the bloodstream and on to the various body organs.) The ANS and the endocrine system often overlap in their responsibilities. There are two pathways, or routes, by which these systems produce arousal and fear reactions—the sympathetic nervous system pathway and the hypothalamic-pituitary-adrenal pathway.

When we face a dangerous situation, the hypothalamus first excites the sympathetic nervous system, a group of ANS fibers that work to quicken our heartbeat and produce the other changes that we experience as fear or anxiety. These nerves may stimulate the organs of the body directly—for example, they may directly

> autonomic nervous system (ANS)
The network of nerve fibers that connect the central nervous system to all the other organs of the body.

> endocrine system The system of glands located throughout the body that help control important activities such as growth and sexual activity.

> sympathetic nervous system The nerve fibers of the autonomic nervous system that quicken the heartbeat and produce other changes experienced as arousal and fear.

---

**figure 6-1**
The autonomic nervous system (ANS) When the sympathetic division of the ANS is activated, it stimulates some organs and inhibits others. The result is a state of general arousal. In contrast, activation of the parasympathetic division leads to an overall calming effect.
stimulate the heart and increase heart rate. The nerves may also influence the organs indirectly, by stimulating the adrenal glands (glands located on top of the kidneys), particularly an area of these glands called the adrenal medulla. When the adrenal medulla is stimulated, the chemicals epinephrine (adrenaline) and norepinephrine (noradrenaline) are released. You have already seen that these chemicals are important neurotransmitters when they operate in the brain (see pages 58, 158–159). When released from the adrenal medulla, however, they act as hormones and travel through the bloodstream to various organs and muscles, further producing arousal and fear.

When the perceived danger passes, a second group of autonomic nervous system fibers, called the parasympathetic nervous system, helps return our heartbeat and other body processes to normal. Together the sympathetic and parasympathetic nervous systems help control our arousal and fear reactions.

The second pathway by which arousal and fear reactions are produced is the hypothalamic-pituitary-adrenal (HPA) pathway (see Figure 6-2). When we are faced by stressors, the hypothalamus also signals the pituitary gland, which lies nearby, to secrete the adrenocorticotropic hormone (ACTH), sometimes called the body’s “major stress hormone.” ACTH, in turn, stimulates the outer layer of the adrenal glands, an area called the adrenal cortex, triggering the release of a group of stress hormones called corticosteroids, including the hormone cortisol. These corticosteroids travel to various body organs, where they further produce arousal and fear reactions (Seaward, 2013; Dallman & Hellhammer, 2011).

The reactions on display in these two pathways are collectively referred to as the fight-or-flight response, precisely because they arouse our body and prepare us for a response to danger (see Figure 6-3). Each person has a particular pattern of autonomic and endocrine functioning and so a particular way of experiencing arousal and fear. Some people are almost always relaxed, while others typically feel tension, even when no threat is apparent. A person’s general level of arousal and anxiety is sometimes called trait anxiety because it seems to be a general trait that each of us brings to the events in our lives (Tolmunen et al., 2014; Spielberger, 1985, 1972, 1966). Psychologists have found that differences in trait anxiety appear soon after birth (Leonardo & Hen, 2006; Kagan, 2003).

People also differ in their sense of which situations are threatening (Moore et al., 2014; Merz & Roesch, 2011). Walking through a forest may be fearsome for one person but relaxing for another. Flying in an airplane may arouse terror in some people and boredom in others. Such variations are called differences in situation, or state, anxiety.
Acute and Posttraumatic Stress Disorders

Of course when we actually confront stressful situations, we do not think to ourselves, “Oh, there goes my autonomic nervous system,” or “My fight-or-flight response seems to be kicking in.” We just feel aroused psychologically and physically and experience a growing sense of fear. If the stressful situation is perceived as extraordinary and/or unusually dangerous, we may temporarily experience levels of arousal, anxiety, and depression that are beyond anything we have ever known. For most people, such reactions subside soon after the danger passes. For others, however, the symptoms of anxiety and depression, as well as other kinds of symptoms, persist well after the upsetting situation is over. These people may be suffering from acute stress disorder or posttraumatic stress disorder, patterns that arise in reaction to a psychologically traumatic event. A traumatic event is one in which a person is exposed to actual or threatened death, serious injury, or sexual violation (APA, 2013). Unlike the anxiety disorders that you read about in Chapter 5, which typically are triggered by situations that most people would not find threatening, the situations that cause acute stress disorder or posttraumatic stress disorder—combat, rape, an earthquake, an airplane crash—would be traumatic for anyone.

If the symptoms begin within 4 weeks of the traumatic event and last for less than a month, DSM-5 assigns a diagnosis of acute stress disorder (APA, 2013). If the symptoms continue longer than a month, a diagnosis of posttraumatic stress disorder (PTSD) is given. The symptoms of PTSD may begin either shortly after the traumatic event or months or years afterward (see Table 6-1).

Studies indicate that as many as 80 percent of all cases of acute stress disorder develop into posttraumatic stress disorder (Bryant et al., 2005). Think back to Latrell, the soldier in Iraq whose case opened this chapter. As you’ll recall, Latrell became overrun by anxiety, insomnia, worry, anger, depression, irritability, intrusive thoughts, flashback memories, and social detachment within days of the attack on his convoy mission—thus qualifying him for a diagnosis of acute stress disorder. As his symptoms worsened and continued beyond one month—even long after his return to the United States—this diagnosis became PTSD. Aside from the

<table>
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<tr>
<th>Dx Checklist</th>
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<tbody>
<tr>
<td><strong>Posttraumatic Stress Disorder</strong></td>
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<tr>
<td>1. Person is exposed to a traumatic event—death or threatened death, severe injury, or sexual violation.</td>
</tr>
<tr>
<td>2. Person experiences at least one of the following intrusive symptoms:</td>
</tr>
<tr>
<td>- Repeated, uncontrolled, and distressing memories</td>
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<tr>
<td>- Repeated and upsetting trauma-linked dreams</td>
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<tr>
<td>- Dissociative experiences such as flashbacks</td>
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<tr>
<td>- Significant upset when exposed to trauma-linked cues</td>
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<tr>
<td>- Pronounced physical reactions when reminded of the event(s).</td>
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<tr>
<td>3. Person continually avoids trauma-linked stimuli.</td>
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<tr>
<td>4. Person experiences negative changes in trauma-linked cognitions and moods, such as being unable to remember key features of the event(s) or experiencing repeated negative emotions.</td>
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<tr>
<td>5. Person displays conspicuous changes in arousal and reactivity, such as excessive alertness, extreme startle responses, or sleep disturbances.</td>
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<tr>
<td>6. Person experiences significant distress or impairment, with symptoms lasting more than a month.</td>
</tr>
</tbody>
</table>

differences in onset and duration, the symptoms of acute stress disorder and PTSD are almost identical:

**REEXPERIENCING THE TRAUMATIC EVENT** People may be battered by recurring thoughts, memories, dreams, or nightmares connected to the event (APA, 2013; Ruzek et al., 2011). A few relive the event so vividly in their minds (flashbacks) that they think it is actually happening again.

**AVOIDANCE** People usually avoid activities that remind them of the traumatic event and try to avoid related thoughts, feelings, or conversations (APA, 2013; Marx & Sloan, 2005).

**REDUCED RESPONSIVENESS** People feel detached from other people or lose interest in activities that once brought enjoyment. Some experience symptoms of dissociation, or psychological separation: they feel dazed, have trouble remembering things, or have a sense of derealization (feeling that the environment is unreal or strange) (APA, 2013; Ruzek et al., 2011).

**INCREASED AROUSAL, NEGATIVE EMOTIONS, AND GUILT** People with these disorders may feel overly alert (hyperalertness), be easily startled, have trouble concentrating, and develop sleep problems (APA, 2013). They may display anxiety, anger, or depression and feel extreme guilt because they survived the traumatic event while others did not (Worthen et al., 2014). Some also feel guilty about what they may have had to do to survive.

You can see these symptoms in the recollections of a Vietnam combat veteran years after he returned home:

> I can’t get the memories out of my mind! The images come flooding back in vivid detail, triggered by the most inconsequential things, like a door slamming or the smell of stir-fried pork. Last night I went to bed, was having a good sleep for a change. Then in the early morning a storm-front passed through and there was a bolt of crackling thunder. I awoke instantly, frozen in fear. I am right back in Vietnam, in the middle of the monsoon season at my guard post. I am sure I’ll get hit in the next volley and convinced I will die. My hands are freezing, yet sweat pours from my entire body. I feel each hair on the back of my neck standing on end. I can’t catch my breath and my heart is pounding. I smell a damp sulfur smell.

*(Davis, 1992)*

**What Triggers Acute and Posttraumatic Stress Disorders?**

An acute or posttraumatic stress disorder can occur at any age, even in childhood, and can affect one’s personal, family, social, or occupational life (Alisic et al., 2014; Monson, Resick, & Rizvi, 2014). People with these stress disorders may also experience depression, another anxiety disorder, or substance abuse or become suicidal. Surveys indicate that at least 3.5 percent of people in the United States have one of the stress disorders in any given year; 7 to 9 percent suffer from one of them during their lifetimes (Kessler et al., 2012; Peterlin et al., 2011; Taylor, 2010). Around two-thirds of these individuals seek treatment at some point in their lives, but relatively few do so when they first develop the disorder (Hoge et al., 2014; Wang et al., 2005).
Women are at least twice as likely as men to develop stress disorders; around 20 percent of women who are exposed to a serious trauma may develop one, compared with 8 percent of men (Perrin et al., 2014; Koch & Haring, 2008; Russo & Tartaro, 2008). Moreover, people with low incomes are twice as likely as people with higher incomes to experience one of the stress disorders (Sareen et al., 2011).

Any traumatic event can trigger a stress disorder; however, some are particularly likely to do so. Among the most common are combat, disasters, and abuse and victimization.

**Combat**
For years clinicians have recognized that many soldiers develop symptoms of severe anxiety and depression during combat. It was called “shell shock” during World War I and “combat fatigue” during World War II and the Korean War (Figley, 1978). Not until after the Vietnam War, however, did clinicians learn that a great many soldiers also experience serious psychological symptoms after combat (Ruzek et al., 2011) (see MediaSpeak on the next page).

By the late 1970s, it became apparent that many Vietnam combat veterans were still experiencing war-related psychological difficulties (Roy-Byrne et al., 2004). We now know that as many as 29 percent of all Vietnam veterans, male and female, suffered an acute or posttraumatic stress disorder, while another 22 percent have had at least some stress symptoms (Hermes, Hoff, & Rosenheck, 2014; Krippner & Paulson, 2006; Weiss et al., 1992). In fact, 10 percent of the veterans of that war still deal with posttraumatic stress symptoms, including flashbacks, night terrors, nightmares, and persistent images and thoughts.

A similar pattern unfolded among the nearly 2 million veterans of the wars in Afghanistan and Iraq (Ruzek et al., 2011). For example, a few years ago, the RAND Corporation, a nonprofit research organization, conducted a large-scale study of military service members who served in those wars (Zoroya, 2013; RAND Corporation, 2010, 2008). It found that around 20 percent of the Americans deployed to the wars had so far reported symptoms of posttraumatic stress disorder. Given that not all of those studied were in fact exposed to prolonged periods of combat-related stress, this is indeed a very large percentage. Half of the veterans interviewed in this study described traumas in which they had seen friends seriously wounded or killed, 45 percent reported seeing dead or gravely wounded civilians, and 10 percent said they themselves had been injured and hospitalized.

It is also worth noting that the wars in Afghanistan and Iraq involved repeated deployments of many of the combat veterans and that the soldiers who served such multiple deployments were 50 percent more likely than those with one tour of service to have experienced severe combat stress, significantly raising their risk of developing posttraumatic stress disorder (Tyson, 2006).

**Disasters**
Acute and posttraumatic stress disorders may also follow natural and accidental disasters such as earthquakes, floods, tornadoes, fires, airplane crashes, and serious car accidents (see Table 6-2). Researchers have found, for example, unusually high rates of posttraumatic stress disorder among the survivors of 2005’s Hurricane Katrina, 2010’s BP Gulf Coast oil spill, and the devastating tornado that struck Moore, Oklahoma, in 2013 (Pearson, 2013; Voelker, 2010). In fact, because they occur more often, civilian traumas

<table>
<thead>
<tr>
<th>Disaster</th>
<th>Year</th>
<th>Location</th>
<th>Number Killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>1931</td>
<td>Huang River, China</td>
<td>3,700,000</td>
</tr>
<tr>
<td>Tsunami</td>
<td>2004</td>
<td>South Asia</td>
<td>280,000</td>
</tr>
<tr>
<td>Earthquake</td>
<td>1976</td>
<td>Tangshan, China</td>
<td>255,000</td>
</tr>
<tr>
<td>Heat wave</td>
<td>2003</td>
<td>Europe</td>
<td>35,000</td>
</tr>
<tr>
<td>Volcano</td>
<td>1985</td>
<td>Nevado del Ruiz, Colombia</td>
<td>23,000</td>
</tr>
<tr>
<td>Hurricane</td>
<td>1998</td>
<td>(Mitch) Central America</td>
<td>18,277</td>
</tr>
<tr>
<td>Landslide</td>
<td>1970</td>
<td>Yungay, Peru</td>
<td>17,500</td>
</tr>
<tr>
<td>Avalanche</td>
<td>1916</td>
<td>Italian Alps</td>
<td>10,000</td>
</tr>
<tr>
<td>Blizzard</td>
<td>1972</td>
<td>Iran</td>
<td>4,000</td>
</tr>
<tr>
<td>Tornado</td>
<td>1989</td>
<td>Saturia, Bangladesh</td>
<td>1,300</td>
</tr>
</tbody>
</table>

When it came time to sentence James Allen Gregg for his conviction on murder charges, the judge in South Dakota took a moment to reflect on the defendant as an Iraq combat veteran who suffered from severe post-traumatic stress disorder.

“This is a terrible case, as all here have observed,” said Judge Charles B. Kornmann of United States District Court. “Obviously not all the casualties coming home from Iraq or Afghanistan come home in body bags.”

When combat veterans like Mr. Gregg stand accused of killings and other offenses on their return from Iraq and Afghanistan, prosecutors, judges and juries are increasingly prodded to assess the role of combat trauma in their crimes. More and more, with the troops’ mental health a rising concern, these defendants are arguing that war be seen as the backdrop for these crimes, most of which are committed by individuals without criminal records.

“I think they should always receive some kind of consideration for the fact that their mind has been broken by war,” said [a] Western regional defense counsel for the Marines.

On the evening of July 3, 2004, Mr. Gregg, then 22, spent the night with friends in a roving pre-Independence Day celebration on the reservation where he grew up, part of a small non-Indian population. They drank at a Quonset hut bar and finally at a mint farm where they built a bonfire, roasted marshmallows and made s’mores.

According to the prosecutor, Mr. Gregg got upset because a young woman accompanying him gravitated to another man. This, the prosecutor said, led to Mr. Gregg spinning the wheels of his truck and spraying gravel on a car belonging to James Fallis, 26, a former high school football lineman. Some time later, a confrontation ensued. Mr. Gregg was severely beaten by Mr. Fallis and, primarily, by another man, suffering facial fractures. Later that night, with one eye swollen shut and a fat lip, he drove to Mr. Fallis’s neighborhood.

Mr. Fallis emerged from a trailer, removed his jacket, asked Mr. Gregg if he had come back for more and opened the door to Mr. Gregg’s pickup truck. Mr. Gregg then reached for the pistol that he carried with him after his return from Iraq. He pointed it at Mr. Fallis and warned him to back away.

Mr. Fallis moved toward the trunk of his car, and Mr. Gregg testified that he believed Mr. Fallis was going to get a weapon. He started shooting to stop him, he said, and then Mr. Fallis veered toward his house. Mr. Gregg fired nine times, and struck [and killed] Mr. Fallis with five bullets.

Mr. Gregg drove quickly away, ending up in a pasture near his parents’ house. According to Mr. Gregg’s testimony, he then put a magazine of more bullets in his gun, chambered a round and pointed it at his chest.

“Jim, why were you going to kill yourself?” his lawyer asked in court.

“Because it felt like Iraq had come back,” Mr. Gregg said. “I felt hopeless. I never wanted to shoot him. Never wanted to hurt him. Never. Everything happened just so fast. I mean, it was almost instinct that I had to protect myself.”

Mental health experts for the defense said, as one psychiatrist testified, that “PTSD was the driving force behind Mr. Gregg’s actions” when he shot his victim. Having suffered a severe beating, they said, he experienced an exaggerated “startle reaction”—a characteristic of PTSD—when Mr. Fallis reached for his car door, and responded instinctively.

The jury found Mr. Gregg guilty of second-degree but not first-degree murder [and he was sentenced to 21 years]. If all efforts to free him fail, he is projected to be released on July 22, 2023, a few weeks shy of his 42nd birthday.

January 27, 2008 “WAR TORN; Combat Trauma Takes the Witness Stand” Sontag, Deborah and Alvarez, Lizette. From The New York Times, 1/27/2008 © 2008 The New York Times. All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of this Content without express written permission is prohibited.
have been the trigger of stress disorders at least 10 times as often as combat traumas (Bremner, 2002). Studies have even found that between 15 and 40 percent of people involved in traffic accidents—adult or child—may develop PTSD within a year of the accident (Noll-Hussong et al., 2013; Hickling & Blanchard, 2007).

**Victimization** People who have been abused or victimized often have stress symptoms that linger. Research suggests that more than one-third of all victims of physical or sexual assault develop posttraumatic stress disorder (Koss et al., 2011; Burijon, 2007), and that as many as half of all people who are directly exposed to terrorism or torture may develop the disorder (Basoglu et al., 2001).

**SEXUAL ASSAULT** A common form of victimization in our society today is sexual assault (see *InfoCentral* on the next page). Rape is forced sexual intercourse or another sexual act committed against a nonconsenting person or intercourse between an adult and an underage person. In the United States, approximately 100,000 cases of rape or attempted rape are reported to the police each year (Berzofsky et al., 2013; Koss, White, & Kazdin, 2011; Wolitzky-Taylor et al., 2011). Most experts believe that these are but a fraction of the actual number of rapes and rape attempts, given the reluctance of many victims to report their sexual assaults. Most rapists are men and most victims are women. Around one in six women is raped at some time during her life. Approximately 73 percent of the victims are raped by acquaintances, intimates, or relatives (BJJS, 2013).

The rates of rape differ from race to race. Around 27 percent of American Indian women and 22 percent of African American women have been raped at some point in their lives, compared with 19 percent of white American women, 15 percent of Hispanic American women, and 12 percent of Asian American women (Black et al., 2011).

The psychological impact of rape on a victim is immediate and may last a long time (Koss et al., 2011, 2008; Koss, 2005, 1993). Rape victims typically experience enormous distress during the week after the assault. Stress continues to rise for the next 3 weeks, maintains a peak level for another month or so, and then starts to improve. In one study, 94 percent of rape victims fully qualified for a clinical diagnosis of acute stress disorder when they were observed around 12 days after the assault (Rothbaum et al., 1992). Although some rape victims improve psychologically within three or four months, for many others, the profound effects of their assault persist for up to 18 months or longer. Victims typically continue to have higher-than-average levels of anxiety, suspiciousness, depression, self-esteem problems, self-blame, flashbacks, sleep problems, and sexual dysfunction (Pietrzak et al., 2014; Street et al., 2011).

Female victims of rape and other crimes also are much more likely than other women to suffer serious long-term health problems (Morgan, Brittain, & Welch, 2014; Koss et al., 2011; Koss & Heslet, 1992). Interviews with 390 women revealed that such victims had poorer physical well-being for at least five years after the crime and made twice as many visits to physicians.

Ongoing victimization and abuse in the family—specifically child and spouse abuse—may also lead to psychological stress disorders. Because these forms of abuse may occur over the long term and violate family trust, many victims develop other symptoms and disorders as well (Koss et al., 2011).
SEXYUAL ASSAULT

People who are **sexually assaulted** have been forced to engage in a sexual act against their will. According to most definitions, people who are **raped** have been forced into sexual intercourse or other forms of sexual penetration. Rape victims often experience **rape trauma syndrome (RTS)**, a pattern of problematic physical and psychological symptoms. RTS is actually a form of PTSD. Approximately **one-third** of rape victims develop PTSD.

### THE PSYCHOLOGICAL EFFECTS OF RAPE

- Suicidal thoughts
- Attempted suicide
- Vulnerability to develop psychological disorders
- Feelings of self-blame and betrayal
- Flashbacks
- Panic attacks
- Sleep problems
- Memory problems

#### Rape victims are more likely to:

- **3 X** suffer from depression
- **4 X** contemplate suicide
- **6 X** suffer from PTSD
- **12 X** abuse alcohol
- **26 X** abuse drugs

(Adams, 2013; RAINN, 2009)

### WHO ARE THE VICTIMS?

#### Gender

- **Women**: 18%
- **Men**: 3%

#### Age

- **Under 12 years old**: 20%
- **12-18 years old**: 29%
- **19-30 years old**: 36%
- **Over 30 years old**: 15%

(RAINN, 2009; NCVS, 2013)

#### Who commits rape?

- A friend or an acquaintance: 38%
- An intimate partner or spouse: 28%
- A stranger: 26%
- A relative: 7%

(CFJ, 2012; Black et al., 2011; Adams, 2013; BJS, 2013; NRC, 2014; NISVS, 2010)

### SEXUAL ASSAULT ON COLLEGE CAMPUSES

The White House has criticized the poor job that colleges are doing preventing sexual assault on campus, punishing perpetrators, and providing proper support for victims. It has pushed colleges to develop guidelines to help prevent sexual assaults (Anderson, 2014). Among other measures, the White House initiative encourages all students and university staff to sign the “It’s On Us” pledge, which makes everyone on campus responsible for preventing and intervening in sexual assaults.

![White House Task Force, 2014; RAINN, 2009]

I pledge:

To **RECOGNIZE** that nonconsensual sex is sexual assault.
To **IDENTIFY** situations in which sexual assault may occur.
To **INTERVENE** in situations where consent has not or cannot be given.
To **CREATE** an environment in which sexual assault is unacceptable and survivors are supported.


89,000 rapes are reported to police per year, but the number of rapes per year is estimated to be at least 225,000.

![Anderson, 2014; CFJ, 2012; Black et al., 2011; Adams, 2013; BJS, 2013; NRC, 2014; NISVS, 2010]

- **Women sexually assaulted in college**: 20%
- **College rapes estimated to be unreported**: 95%
- **College rape victims who sustain bodily injuries**: 47%

(NCVS, 2014)

**Factors Aiding Recovery**
- Positive self-esteem
- Social support
- Previous success in coping with stress
- Economic security
- Accurate information about rape and rape trauma syndrome
- Constructive decision-making

**Factors Delaying Recovery**
- Prior victimization
- Chronic life stressors
- Lack of social support
- Low self-esteem
- Degree of violence during attack

(NCVS, 2014)
TERRORISM People who are victims of terrorism or who live under the threat of terrorism often experience posttraumatic stress symptoms (Ruggero et al., 2013; Mitka, 2011). Unfortunately, this source of traumatic stress is on the rise in our society. Few will ever forget the events of September 11, 2001, when hijacked airplanes crashed into and brought down the World Trade Center in New York City and partially destroyed the Pentagon in Washington, DC, killing thousands of victims and rescue workers and forcing thousands more to desperately run, crawl, and even dig their way to safety. A number of studies have indicated that in the aftermath of that fateful day, many individuals developed immediate and long-term psychological effects, ranging from brief stress reactions, such as shock, fear, and anger, to enduring psychological disorders, such as posttraumatic stress disorder (Ruggero et al., 2013; Mitka, 2011; Galea et al., 2007).

In a survey conducted a week after the terrorist attacks, 560 randomly selected adults across the United States were interviewed. Forty-four percent of them reported substantial stress symptoms; 90 percent reported at least some increase in stress (Schuster et al., 2011). In general, studies have found that people closest to the disaster site had the strongest stress reactions, but that millions of others who had remained glued to their TV sets throughout the day had stress reactions and disorders as well.

Follow-up studies suggest that many such individuals continue to struggle with terrorism-related stress reactions (Ruggero et al., 2013; Mitka, 2011; Adams & Boscarino, 2005). Indeed, even years after the attacks, 42 percent of all adults in the United States and 70 percent of all New York adults report high terrorism fears; 23 percent of all adults in the United States report feeling less safe in their homes; 15 percent of all U.S. adults report drinking more alcohol than they did prior to the attacks; and 9 percent of New York adults display PTSD, compared with the national annual prevalence of 3.5 percent. Studies of subsequent acts of terrorism, such as the 2004 commuter train bombings in Madrid, the 2005 London subway and bus bombings, and the 2013 Boston Marathon bombing, tell a similar story (Comer et al, 2014; Chacón & Vecina, 2007).
TORTURE refers to the use of “brutal, degrading, and disorienting strategies in order to reduce victims to a state of utter helplessness” (Okawa & Hauss, 2007). Often, it is done on the orders of a government or another authority to force persons to yield information or make a confession (Gerrity, Keane, & Tuma, 2001). The question of the morality of torturing prisoners who are considered suspects in the “war on terror” has been the subject of much discussion over the past several years.

It is hard to know how many people are in fact tortured around the world because such numbers are typically hidden by governments (Basoglu et al., 2001). It has been estimated, however, that between 5 and 35 percent of the world’s 15 million refugees have suffered at least one episode of torture and that more than 400,000 torture survivors from around the world now live in the United States (ORR, 2011, 2006; AI, 2000; Baker, 1992). Of course, these numbers do not take into account the many thousands of victims who have remained in their countries even after being tortured.

People from all walks of life are subjected to torture worldwide—from suspected terrorists to student activists and members of religious, ethnic, and cultural minority groups. The techniques used on them may include physical torture (beatings, waterboarding, electrocution), psychological torture (threats of death, mock executions, verbal abuse, degradation), sexual torture (rape, violence to the genitals, sexual humiliation), or torture through deprivation (sleep, sensory, social, nutritional, medical, or hygiene deprivation).

Torture victims often experience physical ailments as a result of their ordeal, from scarring and fractures to neurological problems and chronic pain. But many theorists believe that the lingering psychological effects of torture are even more problematic (Gjini et al., 2013; Punamäki et al., 2010). It appears that between 30 and 50 percent of torture victims develop posttraumatic stress disorder. Even for those who do not develop a full-blown disorder, symptoms such as nightmares, flashbacks, repressed memories, depersonalization, poor concentration, anger outbursts, sadness, and suicidal thoughts are common (Taylor et al., 2013; Okawa & Hauss, 2007).

Why Do People Develop Acute and Posttraumatic Stress Disorders?

Clearly, extraordinary trauma can cause a stress disorder. The stressful event alone, however, may not be the entire explanation. Certainly, anyone who experiences an unusual trauma will be affected by it, but only some people develop a stress disorder (see PsychWatch on the next page) (Elhai, Ford, & Naifeh, 2010). To understand the development of these disorders more fully, researchers have looked to the survivors’ biological processes, personalities, childhood experiences, social support systems, and cultural backgrounds and to the severity of the traumas.

Biological and Genetic Factors Investigators have learned that traumatic events trigger physical changes in the brain and body that may lead to severe stress reactions and, in some cases, to stress disorders (Pace & Heim, 2011; Walderhaug et al., 2011). They have, for example, found abnormal activity of the hormone cortisol and the neurotransmitter/hormone norepinephrine in the urine, blood, and saliva of combat soldiers, rape victims, concentration camp survivors, and survivors of other severe stresses (Gola et al., 2012; Gerardi et al., 2010).

Evidence from brain studies also shows that once a stress disorder sets in, it may lead to further biochemical arousal, and this continuing arousal may eventually damage key brain areas (Lee et al., 2014; Pace & Heim, 2011). As we have seen in earlier chapters, researchers have determined that emotional reactions of various
kinds are tied to brain circuits—networks of brain structures that, with the help of neurotransmitters, trigger each other into action to produce various emotions. It appears that abnormal activity in one such circuit may contribute to posttraumatic stress reactions. This circuit includes the hippocampus and amygdala, which send and receive messages to and from each other (Li et al., 2014; Bremner & Charney, 2010; Yehuda et al., 2010).

Normally, the hippocampus plays a major role both in memory and in the regulation of the body’s stress hormones. Clearly, a dysfunctional hippocampus may help produce the intrusive memories and constant arousal found in posttraumatic stress disorder (Bremner et al., 2004). Similarly, as you read in Chapter 5, the amygdala helps control anxiety and many other emotional responses. It also works with the hippocampus to produce the emotional components of memory. Thus, a dysfunctional amygdala may help produce the repeated emotional symptoms and strong emotional memories common to people with posttraumatic stress disorder (Protopopescu et al., 2005). In short, the arousal produced by extraordinarily traumatic events may lead to stress disorders in some people, and the stress disorders may produce yet further brain abnormalities, locking in the disorders all the more firmly.
It may also be that posttraumatic stress disorder leads to the transmission of biochemical abnormalities to the children of people with the disorder. One team of researchers examined the cortisol levels of women who had been pregnant during the September 11, 2001, terrorist attacks and had developed PTSD (Yehuda & Bierer, 2007). Not only did these women have higher-than-average cortisol levels, but the babies to whom they gave birth after the attacks also displayed higher cortisol levels, suggesting that the babies inherited a predisposition to develop the same disorder.

Many theorists believe that people whose biochemical reactions to stress are unusually strong are more likely than others to develop acute and posttraumatic stress disorders (Burijon, 2007). But why would certain people be prone to such strong biological reactions? One possibility is that the propensity is inherited (Clark et al., 2013). Clearly, this is suggested by the mother–offspring studies just discussed. Similarly, studies conducted on thousands of pairs of twins who have served in the military find that if one twin develops stress symptoms after combat, an identical twin is more likely than a fraternal twin to develop the same problem (Koenen et al., 2003; True & Lyons, 1999).

**Personality** Some studies suggest that people with certain personalities, attitudes, and coping styles are particularly likely to develop acute and posttraumatic stress disorders (DiGangi et al., 2013). In the aftermath of Hurricane Hugo in 1989, for example, children who had been highly anxious before the storm were more likely than other children to develop severe stress reactions (Hardin et al., 2002). Research has also found that people who generally view life’s negative events as beyond their control tend to develop more severe stress symptoms after sexual or other kinds of traumatic events than people who feel that they have more control over their lives (Catanesi et al., 2013; Bremner, 2002). Similarly, people who generally find it difficult to derive anything positive from unpleasant situations adjust more poorly after traumatic events than people who are generally resilient and who typically find value in negative events (Algoe & Fredrickson, 2011; Kunst, 2011).

**Childhood Experiences** Researchers have found that certain childhood experiences seem to leave some people at risk for later acute and posttraumatic stress disorders (Pervanidou & Chrousos, 2014). People whose childhoods have been marked by poverty appear more likely to develop these disorders in the face of later trauma. So do people who went through an assault, abuse, or a catastrophe at an early age; who were younger than 10 when their parents separated or divorced; or whose family members suffered from psychological disorders (Ogle et al., 2014; Yehuda et al., 2010; Koopman et al., 2004).

**Social Support** People whose social and family support systems are weak are also more likely to develop acute or posttraumatic stress disorder after a traumatic event (DiGangi et al., 2013; Uchino & Birmingham, 2011). Rape victims who feel loved, cared for, valued, and accepted by their friends and relatives recover more successfully (Street et al., 2011). So do those treated with dignity and respect by the criminal justice system (Mouilso et al., 2011; Patterson, 2011). In contrast, clinical reports have suggested that poor social support contributes to the development of posttraumatic stress disorder in some combat veterans (Schumm et al., 2014; Charuvastra & Cloitre, 2008).
Multicultural Factors There is a growing suspicion among clinical researchers that the rates of posttraumatic stress disorder may differ among ethnic groups in the United States. In particular, Hispanic Americans may be more vulnerable to the disorder than other cultural groups (Koch & Haring, 2008; Galea et al., 2006). Some cases in point: (1) Studies of combat veterans from the wars in Afghanistan, Iraq, and Vietnam have found higher rates of posttraumatic stress disorder among Hispanic American veterans than among white American and African American veterans (RAND Corporation, 2010, 2008; Kulka et al., 1990). (2) In surveys of police officers, Hispanic American officers typically report more severe duty-related stress symptoms than their non-Hispanic counterparts (Pole et al., 2001). (3) Data on hurricane victims reveal that after some hurricanes Hispanic American victims have had a significantly higher rate of PTSD than victims from other ethnic groups (Perilla et al., 2002). (4) Surveys of New York City residents conducted in the months following the terrorist attacks of September 11, 2001, revealed that 14 percent of Hispanic American residents developed PTSD, compared with 9 percent of African American residents and 7 percent of white American residents (Galea et al., 2002).

Why might Hispanic Americans be more vulnerable to posttraumatic stress disorder than other racial or ethnic groups? Several explanations have been suggested. One holds that as part of their cultural belief system, many Hispanic Americans tend to view traumatic events as inevitable and unalterable, a coping response that may heighten their risk for posttraumatic stress disorder (Perilla et al., 2002). Another explanation suggests that their culture’s emphasis on social relationships and social support may place Hispanic American victims at special risk when traumatic events deprive them—temporarily or permanently—of important relationships and support systems. Indeed, a study conducted almost three decades ago found that among Hispanic American Vietnam combat veterans with stress disorders, those with poor family and social relationships suffered the most severe symptoms (Escobar et al., 1983).

Severity of Trauma As you might expect, the severity and nature of the traumatic event that a person goes through help determine whether the person will develop a stress disorder. Some events can override even a nurturing childhood, positive attitudes, and social support (Ogle, Rubin, & Siegler, 2014; Tramontin &
Halpern, 2007). One study examined 253 Vietnam War prisoners five years after their release. Some 23 percent qualified for a clinical diagnosis of posttraumatic stress disorder, though all had been evaluated as well adjusted before their imprisonment (Ursano et al., 1981).

Generally, the more severe the trauma and the more direct one’s exposure to it, the higher the likelihood of developing a stress disorder (Ogle et al., 2014). Mutilation, severe physical injury, or sexual abuse in particular seem to increase the risk of stress reactions, as does witnessing the injury or death of other people (Perrin et al., 2014; Ursano et al., 2003).

How Do Clinicians Treat Acute and Posttraumatic Stress Disorders?

Treatment can be very important for people who have been overwhelmed by traumatic events (Church, 2014; Taylor, 2010). Overall, about half of all cases of posttraumatic stress disorder improve within six months (Asnis et al., 2004). The remainder of cases may persist for years, and, indeed, more than one-third of people with PTSD do not respond to treatment even after many years (Byers et al., 2014; Cigrang et al., 2011).

Today’s treatment procedures for troubled survivors typically vary from trauma to trauma. Was it combat, an act of terrorism, sexual molestation, or a major accident? Yet all the programs share basic goals: they try to help survivors put an end to their stress reactions, gain perspective on their painful experiences, and return to constructive living (Taylor, 2010). Programs for combat veterans who suffer from PTSD illustrate how these issues may be addressed.

Treatment for Combat Veterans

Therapists have used a variety of techniques to reduce veterans’ posttraumatic symptoms. Among the most common are drug therapy, behavioral exposure techniques, insight therapy, family therapy, and group therapy. Typically the approaches are combined, as no one of them successfully reduces all the symptoms (Mott et al., 2014; Rothbaum et al., 2014; Vogt et al., 2011).

Antianxiety drugs help control the tension that many veterans experience (Writer, Meyer, & Schillerstrom, 2014). In addition, antidepressant medications may reduce the occurrence of nightmares, panic attacks, flashbacks, and feelings of depression (Morgan et al., 2012; Koch & Haring, 2008).
Disorders of Trauma and Stress

Behavioral exposure techniques, too, have helped reduce specific symptoms, and they have often led to improvements in overall adjustment (Peterson, Foa, & Riggs, 2011). In fact, some studies indicate that exposure treatment is the single most helpful intervention for people with posttraumatic stress disorder (Powers et al., 2010; Williams, Cahill, & Foa, 2010). This finding suggests to many clinical theorists that exposure of one kind or another should always be part of the treatment picture (see MindTech above). In one case, the exposure technique of flooding, along with relaxation training, helped rid a 31-year-old veteran of frightening flashbacks and nightmares (Fairbank & Keane, 1982). The therapist and the veteran first singled out combat scenes that the man had been reexperiencing frequently. The therapist then helped the veteran to imagine one of these scenes in great detail and urged him to hold on to the image until his anxiety stopped. After each of these flooding

MindTech

Virtual Reality Therapy: Better than the Real Thing?

As you have read, exposure-based treatment may be the single most helpful intervention for people with PTSD (Le et al., 2014). However, in vivo (actual) exposure to upsetting stimuli is more effective in treating PTSD than covert (imaginary) exposure. For years, this meant that treatment for PTSD for combat veterans was less than optimal. Unable to revisit real-life battle settings, veterans had to imagine rifle fire, bomb explosions, dead bodies, and/or other traumatic stimuli for their treatment.

All that changed a decade ago, when “virtual” exposure to combat conditions became available for veterans with PTSD. The Office of Naval Research funded the development of “Virtual Iraq,” a war simulation treatment game (McIlvaine, 2011). This game was able to produce sights and sounds that seemed every bit as real and produced as much—or more—alarm as real battle conditions. The use of virtual reality as an exposure technique has since become a standard in PTSD treatment.

In virtual reality therapy, PTSD clients use wraparound goggles and joysticks to navigate their way through a computer-generated military convoy, battle, or bomb attack in a landscape that looks like Iraq or Afghanistan. The therapist controls the intensity of the horrifying sights, terrifying sounds, and awful smells of combat, triggering very real feelings of fear or panic in the client. Exposure therapy proceeds with the therapist applying the exposures to these stimuli in either gradual steps or a flooding approach (see pages 149–151).

Study after study has suggested that virtual reality therapy is extremely helpful for combat veterans with PTSD, much more so than covert exposure therapy (Nauert, 2014; McLay, 2013; Rauch, Eftekhari, & Ruzek, 2012). In addition, the improvements produced by this intervention appear to last for extended periods, perhaps indefinitely. Small wonder that virtual reality therapy is now also becoming common in the treatment of other anxiety disorders and phobias, including social anxiety disorder and fears of heights, flying, and closed spaces (Anderson et al., 2013).

Behavioral exposure techniques, too, have helped reduce specific symptoms, and they have often led to improvements in overall adjustment (Peterson, Foa, & Riggs, 2011). In fact, some studies indicate that exposure treatment is the single most helpful intervention for people with posttraumatic stress disorder (Powers et al., 2010; Williams, Cahill, & Foa, 2010). This finding suggests to many clinical theorists that exposure of one kind or another should always be part of the treatment picture (see MindTech above). In one case, the exposure technique of flooding, along with relaxation training, helped rid a 31-year-old veteran of frightening flashbacks and nightmares (Fairbank & Keane, 1982). The therapist and the veteran first singled out combat scenes that the man had been reexperiencing frequently. The therapist then helped the veteran to imagine one of these scenes in great detail and urged him to hold on to the image until his anxiety stopped. After each of these flooding

Can you design a virtual reality exposure treatment program for people with social anxiety disorder?

The Smell of Stress?

Stress is odorless. The bacteria that feed off of our sweat are what give our bodies odor during very stressful events.
exercises, the therapist had the veteran switch to a positive image and led him through relaxation exercises.

A widely applied form of exposure therapy is **eye movement desensitization and reprocessing (EMDR)**, in which clients move their eyes in a rhythmic manner from side to side while flooding their minds with images of the objects and situations they ordinarily try to avoid. Case studies and controlled studies suggest that this treatment can often be helpful to people with posttraumatic stress disorder (Rothbaum et al., 2011; Russell et al., 2011). Many theorists argue that it is the exposure feature of EMDR, rather than the eye movement, that accounts for its success as a treatment for PTSD (Lamprecht et al., 2004).

Although drug therapy and exposure techniques bring some relief, most clinicians believe that veterans with posttraumatic stress disorder cannot fully recover with these approaches alone: they must also come to grips in some way with their combat experiences and the impact those experiences continue to have (Rothbaum et al., 2011; Burijon, 2007). Thus clinicians often try to help veterans bring out deep-seated feelings, accept what they have done and experienced, become less judgmental of themselves, and learn to trust other people once again (Turner et al., 2005). In a similar vein, cognitive therapists typically guide such veterans to examine and change the dysfunctional attitudes and styles of interpretation that they have developed as a result of their traumatic experiences (Spence et al., 2014; Iverson et al., 2011).

Veterans who have posttraumatic stress disorder may be further helped in a couple, family, or group therapy format (Shnaider et al., 2014; Vogt et al., 2011). The symptoms of PTSD are particularly apparent to family members, who may be directly affected by the client's anxieties, depressed mood, or angry outbursts (Owens et al., 2014; Monson et al., 2011). With the help and support of their family members, they may come to examine their impact on others, learn to communicate better, and improve their problem-solving skills.

In group therapy sessions, called **rap groups** when initiated during the 1980s, the veterans meet with others like themselves to share experiences and feelings (particularly guilt and rage), develop insights, and give mutual support (Ellis et al., 2014; Foy et al., 2011).

Today hundreds of small **Veterans Outreach Centers** across the country, as well as treatment programs in Veterans Administration hospitals and mental health clinics, provide group treatment (Ruzek & Batten, 2011). These agencies also offer individual therapy, counseling for spouses and children, family therapy, and aid in seeking jobs, education, and benefits (Mott et al., 2014). Clinical reports suggest that these programs offer a necessary, sometimes life-saving, treatment opportunity.

**Psychological Debriefing** People who are traumatized by disasters, victimization, or accidents profit from many of the same treatments that are used to help survivors of combat (Monson et al., 2014). In addition, because their traumas occur in their own community, where mental health resources are close at hand, they may, according to many clinicians, further benefit from immediate community interventions.

One of the leading such approaches is called **psychological debriefing**, or **critical incident stress debriefing**, an intervention applied widely over the past 30 years. The use of this intervention has, however, come under careful scrutiny in recent years, reminding the clinical field of the ongoing need for systematic research into its assumptions and applications.

Psychological debriefing is a form of crisis intervention that has victims of trauma talk extensively about their feelings and reactions within days of the critical incident (Tuckey & Scott, 2014; Gist & Devilly, 2010; Mitchell, 2003, 1983). Based on the assumption that such sessions prevent or reduce stress reactions, they are often provided to trauma victims who have not yet displayed any symptoms at
Disorders of Trauma and Stress

all, as well as to those who have. During the sessions, often conducted in a group format, counselors guide the individuals to describe the details of the recent trauma, to vent and relive the emotions provoked at the time of the event, and to express their current feelings. The clinicians then clarify to the victims that their reactions are perfectly normal responses to a terrible event, offer stress management tips, and in some cases, refer the victims to professionals for long-term counseling.

Many thousands of counselors, both professionals and nonprofessionals, have been trained in psychological debriefing since its inception in the early 1980s, and the intense approach has been applied in the aftermath of countless traumatic events (Pfefferbaum, Newman, & Nelson, 2014; Wei et al., 2010; McNally, 2004). Indeed, when a traumatic incident affects numerous individuals, debriefing-trained counselors may come from far and wide to conduct debriefing sessions with the victims. Large mobilizations of this kind have offered free emergency mental health services at disaster sites such as the 1999 shooting of 23 people at Columbine High School in Colorado, the 2001 World Trade Center attack, the 2004 tsunami in South Asia, the floods caused by Hurricane Katrina in 2005, and the Haitian and Japanese earthquakes in 2010 and 2011.

In such community-wide mobilizations, the counselors may knock on doors or approach victims at shelters. Although victims from all socioeconomic groups may be engaged, those who live in poverty have been viewed traditionally as most in need and so have been targeted for psychological debriefing most often.

**Does Psychological Debriefing Work?** Over the years, personal testimonials for rapid mobilization programs have often been favorable (Watson & Shalev, 2005; Mitchell, 2003). However, as you read earlier, a growing number of studies conducted in the twenty-first century have called into question the effectiveness of this kind of intervention (Tuckey & Scott, 2014; Gist & Devilly, 2010).

Actually, an investigation conducted in the early 1990s was the first to raise concerns about disaster debriefing programs (Bisson & Deahl, 1994). Crisis counselors offered immediate debriefing sessions to 62 British soldiers whose job during the Gulf War was to handle and identify the bodies of people who had been killed. Despite such sessions, half of the soldiers displayed posttraumatic stress symptoms when interviewed nine months later.

In a properly controlled study conducted a few years later on hospitalized burn victims, researchers separated the victims into two groups (Bisson et al., 1997). One group received a single one-on-one debriefing session within days of their burn accidents, while the other (control) group of burn victims received no such intervention. Three months later, it was found that the debriefed and the control patients had similar rates of posttraumatic stress disorder. Moreover, researchers found that 13 months later, the rate of posttraumatic stress disorder was actually higher among the debriefed burn victims (26 percent) than among the control victims (9 percent).

More recent studies, focusing on yet other kinds of disasters, have yielded similar patterns of findings, raising important questions about the effectiveness of psychological debriefing (Tuckey & Scott, 2014; Szumilas et al., 2010). Some clinicians have come to believe that the early intervention programs may encourage victims to dwell too long on the traumatic events that they have experienced. And a number worry that early disaster counseling may unintentionally “suggest” problems to certain victims, thus helping to produce stress disorders (McNally, 2004; McClelland, 1998).
Many mental health professionals continue to believe in psychological debriefing programs. However, given the unsupportive and even contradictory research findings of recent years, the current clinical climate is moving away from outright acceptance. A number of clinical theorists now believe that certain high-risk individuals may profit from debriefing programs and that those people should receive debriefing techniques immediately after a traumatic event, but that other trauma victims should not receive such interventions (Delahanty, 2011). Of course, a key to this notion is the ability to effectively identify the risk factors that predict PTSD and the personality factors that predict responsiveness to psychological debriefing. Research into these issues is now under way (North & Pfefferbaum, 2013; Delahanty, 2011).

Dissociative Disorders

As you have just read, people with acute and posttraumatic stress disorders may have symptoms of dissociation along with their other symptoms. They may, for example, feel dazed, have trouble remembering things, or have a sense of derealization. Symptoms of this kind are also on display in dissociative disorders, another group of disorders triggered by traumatic events (Armour et al., 2014). In fact, the memory difficulties and other dissociative symptoms found in these disorders are particularly intense, extensive, and disruptive. Moreover, in such disorders, dissociative reactions are the main or only symptoms. People with dissociative disorders do not typically have the significant arousal, negative emotions, sleep difficulties, and other problems that characterize acute and posttraumatic stress disorders. Nor are there clear physical factors at work in dissociative disorders.

Most of us experience a sense of wholeness and continuity as we interact with the world. We perceive ourselves as being more than a collection of isolated sensory experiences, feelings, and behaviors. In other words, we have an identity, a sense of who we are and where we fit in our environment. Memory is a key to this sense of identity, the link between our past, present, and future. Without a memory, we would always be starting over; with it, our life and our identity move forward. In dissociative disorders, one part of a person’s memory or identity becomes dissociated, or separated, from other parts of his or her memory or identity.

There are several kinds of dissociative disorders. People with dissociative amnesia are unable to recall important personal events and information. People with dissociative identity disorder, once known as multiple personality disorder, have two or more separate identities that may not always be aware of each other’s memories, thoughts, feelings, and behavior. And people with depersonalization-derealization disorder feel as though they have become detached from their own mental processes or bodies or are observing themselves from the outside.

Several famous books and movies have portrayed dissociative disorders. Two classics are The Three Faces of Eve and Sybil, each about a woman who developed multiple personalities after having been subject to traumatic events in childhood. The topic is so fascinating that most television drama series seem to include at least one case of dissociation every season, creating the impression that the disorders are very common. Many clinicians, however, believe that they are rare.
Disorders of Trauma and Stress

Dissociative Amnesia

People with **dissociative amnesia** are unable to recall important information, usually of a stressful nature, about their lives (APA, 2013). The loss of memory is much more extensive than normal forgetting and is not caused by physical factors such as a blow to the head (see Table 6-3). Typically, an episode of amnesia is directly triggered by a traumatic or upsetting event (Kikuchi et al., 2010).

Dissociative amnesia may be **localized, selective, generalized, or continuous**. In **localized amnesia**, the most common type of dissociative amnesia, a person loses all memory of events that took place within a limited period of time, almost always beginning with some very disturbing occurrence. A soldier, for example, may awaken a week after a horrific combat battle and be unable to recall the battle or any of the events surrounding it. She may remember everything that happened up to the battle, and may recall everything that has occurred over the past several days, but the events in between remain a total blank. The forgotten period is called the **amnestic episode**. During an amnestic episode, people may appear confused; in some cases they wander about aimlessly. They are already experiencing memory difficulties but seem unaware of them.

People with **selective amnesia**, the second most common form of dissociative amnesia, remember some, but not all, events that took place during a period of time. If the combat soldier mentioned in the previous paragraph had selective amnesia, she might remember certain interactions or conversations that occurred during the battle, but not more disturbing events such as the death of a friend or the screams of enemy soldiers.

In some cases the loss of memory extends back to times long before the upsetting period. In addition to forgetting battle-linked events, the soldier may not remember events that occurred earlier in her life. In this case, she would have what is called **generalized amnesia**. In extreme cases, she might not even recognize relatives and friends.

In the forms of dissociative amnesia just discussed, the period affected by the amnesia has an end. In **continuous amnesia**, however, forgetting continues into the present. The soldier might forget new and ongoing experiences as well as what happened before and during the battle.

These various forms of dissociative amnesia are similar in that the amnesia interferes mostly with a person’s memory of personal material. Memory for abstract or encyclopedic information usually remains. People with dissociative amnesia are as likely as anyone else to know the name of the president of the United States and how to read or drive a car.

Clinicians do not know how common dissociative amnesia is (Pope et al., 2007), but they do know that many cases seem to begin during serious threats to health and safety, as in wartime and natural disasters. Like the soldier in the earlier examples, combat veterans often report memory gaps of hours or days, and some forget personal information, such as their name and address (Bremner, 2002).

Childhood abuse, particularly child sexual abuse, can also trigger dissociative amnesia; indeed, in the 1990s there were many reports in which adults claimed to recall long-forgotten experiences of childhood abuse (Wolf & Nochajski, 2013) (see PsychWatch on the next page). In addition, dissociative amnesia may occur under more ordinary circumstances, such as the sudden loss of a loved one through rejection or death or extreme guilt over certain actions (for example, an extramarital affair) (Koh et al., 2000).

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**Why do many people question the authenticity of people who seem to lose their memories at times of severe stress?**

**CC**

dissociative disorders Disorders marked by major changes in memory that do not have clear physical causes.

**CC**

dissociative amnesia A disorder marked by an inability to recall important personal events and information.

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**Dx Checklist**

**Dissociative Amnesia**

1. Person cannot recall important life-related information, typically traumatic or stressful information. The memory problem is more than simple forgetting.

2. Significant distress or impairment.

3. The symptoms are not caused by a substance or medical condition.

**Dissociative Identity Disorder**

1. Person experiences a disruption to his or her identity, as reflected by at least two separate personality states or experiences of possession.

2. Person repeatedly experiences memory gaps regarding daily events, key personal information, or traumatic events, beyond ordinary forgetting.

3. Significant distress or impairment.

4. The symptoms are not caused by a substance or medical condition.

PsychWatch

Repressed Childhood Memories or False Memory Syndrome?

Throughout the 1990s, reports of repressed childhood memory of abuse attracted much public attention. Adults with this type of dissociative amnesia seemed to recover buried memories of sexual and physical abuse from their childhood. A woman might claim, for example, that her father had sexually molested her repeatedly between the ages of 5 and 7. Or a young man might remember that a family friend had made sexual advances on several occasions when he was very young. Often the repressed memories surfaced during therapy for another problem.

Although the number of such claims has declined in recent years, experts remain split on this issue (Wolf & Nochajski, 2013; Birrell, 2011; Haaken & Reavey, 2010). Some believe that recovered memories are just what they appear to be—horrible memories of abuse that have been buried for years in the person’s mind. Other experts believe that the memories are actually illusions—false images created by a mind that is confused. Opponents of the repressed memory concept hold that the details of childhood sexual abuse are often remembered all too well, not completely wiped from memory (Loftus & Cahill, 2007). They also point out that memory in general is often flawed (Haaken & Reavey, 2010; Lindsay et al., 2004). Moreover, false memories of various kinds can be created in the laboratory by tapping into research participants’ imaginations (Weinstein & Shanks, 2010; Brainerd et al., 2008).

If the alleged recovery of childhood memories is not what it appears to be, what is it? According to opponents of the concept, it may be a powerful case of suggestibility (Loftus & Cahill, 2007; Loftus, 2003, 2001). These theorists hold that the attention paid to the phenomenon by both clinicians and the public has led some therapists to make the diagnosis without sufficient evidence (Haaken & Reavey, 2010). The therapists may actively search for signs of early abuse in clients and even encourage clients to produce repressed memories (McNally & Garaerts, 2009). Certain therapists in fact use special memory recovery techniques, including hypnosis, regression therapy, journal writing, dream interpretation, and interpretation of bodily symptoms. Perhaps some clients respond to the techniques by unknowingly forming false memories of abuse. The apparent memories may then become increasingly familiar to them as a result of repeated therapy discussions of the alleged incidents.

Of course, repressed memories of childhood sexual abuse do not emerge only in clinical settings. Many individuals come forward on their own. Opponents of the repressed memory concept explain these cases by pointing to various books, articles, Web sites, and television shows that seem to validate repressed memories of childhood abuse (Haaken & Reavey, 2010; Loftus, 1993). Still other opponents of the repressed memory concept believe that, for biological or other reasons, some individuals are more prone than others to experience false memories—either of childhood abuse or of other kinds of events (McNally et al., 2005).

It is important to recognize that the experts who question the recovery of repressed childhood memories do not in any way deny the problem of child sexual abuse. In fact, proponents and opponents alike are greatly concerned that the public may take this debate to mean that clinicians have doubts about the scope of the problem of child sexual abuse. Whatever may be the final outcome of the repressed memory debate, the problem of childhood sexual abuse is all too real and all too common.

Early recall
These three siblings, all born on the same day in different years, have very different reactions to their cakes at a 1958 birthday party. But how do they each remember that party today? Research suggests that our memories of early childhood may be influenced by the reminiscences of family members, our dreams, television and movie plots, and our present self-image.
The personal impact of dissociative amnesia depends on how much is forgotten. Obviously, an amnestic episode of two years is more of a problem than one of two hours. Similarly, an amnestic episode during which a person’s life changes in major ways causes more difficulties than one that is quiet.

An extreme version of dissociative amnesia is called dissociative fugue. Here persons not only forget their personal identities and details of their past lives but also flee to an entirely different location. Some people travel a short distance and make few social contacts in the new setting (APA, 2013). Their fugue may be brief—a matter of hours or days—and end suddenly. In other cases, however, the person may travel far from home, take a new name, and establish a new identity, new relationships, and even a new line of work. Such people may also display new personality characteristics; often they are more outgoing. This pattern is seen in the century-old case of the Reverend Ansel Bourne, whose last name was the inspiration for Jason Bourne, the memory-deprived secret agent in the modern-day Bourne books and movies.

On January 17, 1887, [the Reverend Ansel Bourne, of Greene, R.I.] drew 551 dollars from a bank in Providence with which to pay for a certain lot of land in Greene, paid certain bills, and got into a Pawtucket horsecar. This is the last incident which he remembers. He did not return home that day, and nothing was heard of him for two months. He was published in the papers as missing, and foul play being suspected, the police sought in vain his whereabouts. On the morning of March 14th, however, at Norristown, Pennsylvania, a man calling himself A. I. Brown who had rented a small shop six weeks previously, stocked it with stationery, confectionery, fruit and small articles, and carried on his quiet trade without seeming to any one unnatural or eccentric, woke up in a fright and called in the people of the house to tell him where he was. He said that his name was Ansel Bourne, that he was entirely ignorant of Norristown, that he knew nothing of shop keeping, and that the last thing he remembered—it seemed only yesterday—was drawing the money from the bank, etc. in Providence. . . . He was very weak, having lost apparently over twenty pounds of flesh during his escapade, and had such a horror of the idea of the candy-store that he refused to set foot in it again.

(James, 1890, pp. 391–393)

Fugues tend to end abruptly. In some cases, as with Reverend Bourne, the person “awakens” in a strange place, surrounded by unfamiliar faces, and wonders how he or she got there. In other cases, the lack of personal history may arouse suspicion. Perhaps a traffic accident or legal problem leads police to discover the false identity; at other times friends search for and find the missing person. When people are found before their state of fugue has ended, therapists may find it necessary to ask them many questions about the details of their lives, repeatedly remind them who they are, and even begin psychotherapy before they recover their memories (Igwe, 2013; Mamade et al., 2013). As these people recover their past, some forget the events of the fugue period.

The majority of people who go through a dissociative fugue regain most or all of their memories and never have a recurrence. Since fugues are usually brief and totally reversible, those who have experienced them tend to have few aftereffects. People who have been away for months or years, however, often do have trouble

- **dissociative fugue** A form of dissociative amnesia in which a person travels to a new location and may assume a new identity, simultaneously forgetting his or her past.
adjusting to the changes that took place during their flight. In addition, some people commit illegal or violent acts in their fugue state and later must face the consequences.

Dissociative Identity Disorder

Dissociative identity disorder is both dramatic and disabling, as we see in the case of Luisa:

Luisa was first brought in for treatment after she was found walking in circles by the side of the road in a suburban neighborhood near Denver. Agitated, malnourished, and dirty, this 30-year-old woman told police that her name was Franny and that she was a 15-year-old who was running away from her home in Telluride. At first, the police officers suspected she was giving a false identity to avoid prosecution for prostitution or drug possession, but there really was no evidence for either crime when she was found.

Once it became apparent that she fully believed what she was saying, the woman, who carried no identification of any kind, was transferred to a psychiatric hospital for observation. By the time she met with a therapist, she was no longer a young child speaking rapidly about a terrible family situation. She was now calling herself Luisa, and she spoke in slow, measured, and sad tones—eloquent but often confused.

Luisa described how she had been sexually abused for years by her stepfather, starting when she was six. She said she had run away from home at the age of 15 and had not spoken since to either her mother or stepfather. She claimed that, although she had spent considerable time living on the streets over the years, she was currently living with her boyfriend, Tim, in a small apartment. However, when pressed, she was unable to say what Tim did for a living, nor could she provide his address or last name. Thus she remained in treatment.

Over the course of treatment, as her therapist continued to probe for details of her unhappy childhood and sexual abuse, Luisa became more and more agitated, until finally, she actually transformed back into 15-year-old Franny during one session. Her therapist wrote in his notes, “Her entire physical presence transformed itself suddenly and almost violently. Her face, previously relaxed and even flat, became tense and scrunched up, and her entire body hunched over. She moved her chair back almost two feet and repeatedly flinched from me if I even gestured in her direction. Her voice became high-pitched, clipped, and fast, spitting out words, and her vocabulary became limited, to that which a child would display. She seemed to be a different person in every way possible.”

Over the following several sessions, Luisa’s therapist wound up meeting still other personalities. One was Miss Johnson, a strict school principal who claimed to have taught Luisa when she was younger. Another was Roger—homeless, tough, and threatening—who made it clear that he was in charge of Luisa and the other personalities. In addition there was Sarah, aged 55 and divorced, and Lilly, aged 24, a math genius and accountant who seemed to appear whenever Luisa needed to deal with money or complex mathematical issues.

A person with dissociative identity disorder, known in the past as multiple personality disorder, develops two or more distinct personalities, often called subpersonalities, or alternate personalities, each with a unique set of memories, behaviors, thoughts, and emotions (see again Table 6-3). At any given time, one of the subpersonalities takes center stage and dominates the person’s functioning. Usually one subpersonality, called the primary, or host, personality, appears more often than the others.
The transition from one subpersonality to another, called switching, is usually sudden and may be dramatic (Barlow & Chu, 2014). Luisa, for example, twisted her face and hunched her shoulders and body forward violently. Switching is usually triggered by a stressful event, although clinicians can also bring about the change with hypnotic suggestion.

Cases of dissociative identity disorder were first reported almost three centuries ago (Rieber, 2006, 2002). Many clinicians consider the disorder to be rare, but some reports suggest that it may be more common than was once thought (Dorahy et al., 2014). Most cases are first diagnosed in late adolescence or early adulthood, but more often than not, the symptoms actually began in early childhood after episodes of trauma or abuse (often sexual abuse) (Sar et al., 2014; Steele, 2011; Ross & Ness, 2010). Women receive this diagnosis at least three times as often as men.

**How Do Subpersonalities Interact?** How subpersonalities relate to or recall one another varies from case to case (Barlow & Chu, 2014). Generally, however, there are three kinds of relationships. In mutually amnesic relationships, the subpersonalities have no awareness of one another (Ellenberger, 1970). Conversely, in mutually cognizant patterns, each subpersonality is well aware of the rest. They may hear one another’s voices and even talk among themselves. Some are on good terms, while others do not get along at all.

In one-way amnesic relationships, the most common relationship pattern, some subpersonalities are aware of others, but the awareness is not mutual. Those who are aware, called coconscious subpersonalities, are “quiet observers” who watch the actions and thoughts of the other subpersonalities but do not interact with them. Sometimes while another subpersonality is present, the coconscious personality makes itself known through indirect means, such as auditory hallucinations (perhaps a voice giving commands) or “automatic writing” (the current personality may find itself writing down words over which it has no control).

Investigators used to believe that most cases of dissociative identity disorder involved two or three subpersonalities. Studies now suggest, however, that the average number of subpersonalities per patient is much higher—15 for women and 8 for men (APA, 2000). In fact, there have been cases in which 100 or more subpersonalities were observed. Often the subpersonalities emerge in groups of 2 or 3 at a time.

In the case of “Eve White,” made famous in the book and movie *The Three Faces of Eve,* a woman had three subpersonalities—Eve White, Eve Black, and Jane (Thigpen & Cleckley, 1957). Eve White, the primary personality, was quiet and serious; Eve Black was carefree and mischievous; and Jane was mature and intelligent. According to the book, these three subpersonalities eventually merged into Evelyn, a stable personality who was really an integration of the other three.

The book was mistaken, however; this was not to be the end of Eve’s dissociation. In an autobiography 20 years later, she revealed that altogether 22 subpersonalities had come forth during her life, including 9 subpersonalities after Evelyn. Usually they appeared in groups of three, and so the authors of *The Three Faces of Eve* apparently never knew about her previous or subsequent subpersonalities. She has now overcome her disorder, achieving a single, stable identity, and has been known as Chris Sizemore for more than 35 years (Ramsland & Kuter, 2011; Sizemore, 1991).

**How Do Subpersonalities Differ?** As in Chris Sizemore’s case, subpersonalities often exhibit dramatically different characteristics. They may also have their own names and different identifying features, abilities and preferences, and even physiological responses.
**Chapter 6202**

**IDENTIFYING FEATURES** The subpersonalities may differ in features as basic as age, gender, race, and family history, as in the case of Sybil Dorsett, whose disorder is described in the famous novel *Sybil* (Schreiber, 1973). According to the novel, Sybil displayed 17 subpersonalities, all with different identifying features. They included adults, a teenager, and even a baby. One subpersonality, Vicky, saw herself as attractive and blonde, while another, Peggy Lou, believed herself to be “a pixie with a pug nose.” Yet another, Mary, was plump with dark hair, and Vanessa was a tall, thin redhead. (It is worth noting that the accuracy of the real-life case on which this novel was based has been challenged in recent years.)

**ABILITIES AND PREFERENCES** Although memories of abstract or encyclopedic information are not usually affected in dissociative amnesia, they are often disturbed in dissociative identity disorder. It is not uncommon for the different subpersonalities to have different abilities: one may be able to drive, speak a foreign language, or play a musical instrument, while the others cannot (Coons & Bowman, 2001). Their handwriting can also differ. In addition, the subpersonalities usually have different tastes in food, friends, music, and literature. Chris Sizemore (“Eve”) later pointed out, “If I had learned to sew as one personality and then tried to sew as another, I couldn’t do it. Driving a car was the same. Some of my personalities couldn’t drive” (Sizemore & Pitillo, 1977, p. 4).

**PHYSIOLOGICAL RESPONSES** Researchers have discovered that subpersonalities may have physiological differences, such as differences in blood pressure levels and allergies (Spiegel, 2009; Putnam et al., 1990). A pioneering study looked at the brain activities of different subpersonalities by measuring their *evoked potentials*—that is, brain-response patterns recorded on an electroencephalograph (Putnam, 1984). The brain pattern a person produces in response to a specific stimulus (such as a flashing light) is usually unique and consistent. However, when an evoked potential test was administered to four subpersonalities of each of 10 people with dissociative identity disorder, the results were dramatic. The brain-activity pattern of each subpersonality was unique, showing the kinds of variations usually found in totally different people.

The evoked potential study also used control participants who pretended to have different subpersonalities. These normal individuals were instructed to create and rehearse alternate personalities. The brain-reaction patterns of these participants, in contrast to those of real patients, did not vary as they shifted from subpersonality to subpersonality, suggesting that simple faking cannot produce the variations in brain reaction found in cases of dissociative identity disorder. A number of other “simulation” studies conducted over the past two decades have yielded similar findings (Boysen & VanBergen, 2014).

**How Common Is Dissociative Identity Disorder?** As you have seen, dissociative identity disorder has traditionally been thought of as rare. Some researchers even argue that many or all cases are *iatrogenic*—that is, unintentionally produced by practitioners (Lynn & Deming, 2010; Piper & Merskey, 2005, 2004). They believe that therapists create this disorder by subtly suggesting the existence of other personalities during therapy or by explicitly asking a patient to produce different personalities while under hypnosis. In addition, they believe, a therapist who is looking for multiple personalities may reinforce these patterns by displaying greater interest when a patient displays symptoms of dissociation.

These arguments seem to be supported by the fact that many cases of dissociative identity disorder first come to attention while the person is already in treatment for a less serious problem. But such is not true of all cases; many people seek treatment because they have noticed time lapses throughout their lives or because relatives and friends have observed their subpersonalities (Putnam, 2006, 2000).
The number of people diagnosed with dissociative identity disorder increased dramatically in the 1980s and 1990s, only to decrease again over the past 15 years (Paris, 2012). Notwithstanding this decline, thousands of cases have now been diagnosed in the United States and Canada alone and some clinical theorists estimate that as much as 1 percent of the population in the United States and other Western countries displays the disorder (Dorahy et al., 2014).

For much of the twentieth century, cases of dissociative identity disorder may have been confused with cases of schizophrenia. Throughout that century, diagnoses of schizophrenia were applied, often incorrectly, to a wide range of unusual behavioral patterns, perhaps including dissociative identity disorder (Tschöke & Steinert, 2010). Under the stricter criteria of recent editions of the DSM, clinicians have been more accurate in diagnosing schizophrenia, allowing more cases of dissociative identity disorder to be recognized (Welburn et al., 2003). In addition, several diagnostic tests and structured interviews have been developed to help detect dissociative identity disorder (Dorahy et al., 2014; Sar et al., 2013). Despite such changes, however, many clinicians continue to question the legitimacy of this category.

How Do Theorists Explain Dissociative Amnesia and Dissociative Identity Disorder?

A variety of theories have been proposed to explain dissociative amnesia and dissociative identity disorder. Older explanations, such as those offered by psychodynamic and behavioral theorists, have not received much investigation (Merenda, 2008). However, newer viewpoints, which combine cognitive-behavioral and biological principles and highlight such factors as state-dependent learning and self-hypnosis, have captured the interest of clinical scientists.

The Psychodynamic View Psychodynamic theorists believe that these dissociative disorders are caused by repression, the most basic ego defense mechanism: people fight off anxiety by unconsciously preventing painful memories, thoughts, or impulses from reaching awareness. Everyone uses repression to a degree, but people with dissociative amnesia and dissociative identity disorder are thought to repress their memories excessively (Henderson, 2010; Fayek, 2002).

In the psychodynamic view, dissociative amnesia is a single episode of massive repression. A person unconsciously blocks the memory of an extremely upsetting event to avoid the pain of facing it (Kikuchi et al., 2010). Repressing may be his or her only protection from overwhelming anxiety.

What verdict is appropriate for accused criminals who experience dissociative identity disorder and whose crimes are committed by one of their subpersonalities?
In contrast, dissociative identity disorder is thought to result from a lifetime of excessive repression (Howell, 2011; Wang & Jiang, 2007). Psychodynamic theorists believe that this continuous use of repression is motivated by traumatic childhood events, particularly abusive parenting (Baker, 2010; Ross & Ness, 2010). The novel Sybil, for example, describes young Sybil’s abuse at the hands of her disturbed mother, Hattie:

> A favorite ritual . . . was to separate Sybil’s legs with a long wooden spoon, tie her feet to the spoon with dish towels, and then string her to the end of a light bulb cord, suspended from the ceiling. The child was left to swing in space while the mother proceeded to the water faucet to wait for the water to get cold. After muttering, “Well, it’s not going to get any colder,” she would fill the adult-sized enema bag to capacity and return with it to her daughter. As the child swung in space, the mother would insert the enema tip into the child’s urethra and fill the bladder with cold water. “I did it,” Hattie would scream triumphantly when her mission was accomplished. “I did it.” The scream was followed by laughter, which went on and on.

(Schreiber, 1973, p. 160)

According to psychodynamic theorists, children who experience such traumas may come to fear the dangerous world they live in and take flight from it by pretending to be another person who is looking on safely from afar. Abused children may also come to fear the impulses that they believe are the reasons for their excessive punishments. Whenever they experience “bad” thoughts or impulses, they unconsciously try to disown and deny them by assigning them to other personalities.

Most of the support for the psychodynamic explanation of dissociative identity disorder is drawn from case histories, which report such brutal childhood experiences as beatings, cuttings, burnings with cigarettes, imprisonment in closets, rape, and extensive verbal abuse (Ross & Ness, 2010). Yet some individuals with this disorder do not seem to have experiences of abuse in their background (Ross & Ness, 2010; Bliss, 1980). For example, Chris Sizemore, the subject of The Three Faces of Eve, has reported that her disorder first emerged during her preschool years after she witnessed two deaths and a horrifying accident within a three-month period.

**The Behavioral View** Behaviorists believe that dissociation grows from normal memory processes such as drifting of the mind or forgetting (see PsychWatch on page 206). Specifically, they hold that dissociation is a response learned through operant conditioning (Casey, 2001). People who experience a horrifying event may later find temporary relief when their mind drifts to other subjects. For some, this momentary forgetting, leading to a drop in anxiety, increases the likelihood of future forgetting. In short, they are reinforced for the act of forgetting and learn—without being aware that they are learning—that such acts help them escape anxiety. Thus, like psychodynamic theorists, behaviorists see dissociation as escape behavior. But behaviorists believe that a reinforcement process rather than a hardworking unconscious is keeping the individuals unaware that they are using dissociation as a means of escape. Like psychodynamic theorists, behaviorists have relied largely on case histories to support their view. Moreover, the behavioral explanation fails to explain precisely how temporary and normal escapes from painful memories grow into a complex disorder or why more people do not develop dissociative disorders.
State-Dependent Learning If people learn something when they are in a particular situation or state of mind, they are likely to remember it best when they are again in that same condition. If they are given a learning task while under the influence of alcohol, for example, their later recall of the information may be strongest under the influence of alcohol. Similarly, if they smoke cigarettes while learning, they may later have better recall when they are again smoking.

This link between state and recall is called state-dependent learning. It was initially observed in animals who learned things during experiments while under the influence of certain drugs (Ardjmand et al., 2011; Overton, 1966, 1964). Research with human participants later showed that state-dependent learning can be associated with mood states as well: material learned during a happy mood is recalled best when the participant is again happy, and sad-state learning is recalled best during sad states (de l’Etoile, 2002; Bower, 1981) (see Figure 6-4).

What causes state-dependent learning? One possibility is that arousal levels are an important part of learning and memory. That is, a particular level of arousal will have a set of remembered events, thoughts, and skills attached to it. When a situation produces that particular level of arousal, the person is more likely to recall the memories linked to it.

Although people may remember certain events better in some arousal states than in others, most can recall events under a variety of states. However, perhaps people who are prone to develop dissociative disorders have state-to-memory links that are unusually rigid and narrow (Barlow, 2011). Maybe each of their thoughts, memories, and skills is tied exclusively to a particular state of arousal, so that they recall a given event only when they experience an arousal state almost identical to the state in which the memory was first acquired. When such people are calm, for example, they may forget what happened during stressful times, thus laying the groundwork for dissociative amnesia. Similarly, in

Sensory memories
Sensory stimuli often trigger important memories. Thus some clinicians practice olfactotherapy, a method that uses the smells and vibrations of essential oils to help elicit memories from clients.
Dissociative identity disorder, different arousal levels may produce entirely different groups of memories, thoughts, and abilities—that is, different subpersonalities (Dorahy & Huntjens, 2007). This could explain why personality transitions in dissociative identity disorder tend to be sudden and stress-related.

**Self-Hypnosis**

As you first saw in Chapter 1, people who are hypnotized enter a sleeplike state in which they become very suggestible. While in this state, they can behave, perceive, and think in ways that would ordinarily seem impossible. They may, for example, become temporarily blind, deaf, or insensitive to pain. Hypnosis can also help people remember events that occurred and were forgotten years ago, a capability used by many psychotherapists. Conversely, it can make people forget facts, events, and even their personal identities—an effect called **hypnotic amnesia**.

The parallels between hypnotic amnesia and the dissociative disorders we have been examining are striking (van der Krujts et al., 2014; Terhune et al., 2011). Both are conditions in which people forget certain material for a period of time yet later remember it. And in both, the people forget without any insight into why they are forgetting or any awareness that something is being forgotten. These parallels have led some theorists to conclude that dissociative disorders may be a form of **self-hypnosis** in which people hypnotize themselves to forget unpleasant events (Dell,
Dissociative amnesia may develop, for example, in people who, consciously or unconsciously, hypnotize themselves into forgetting horrifying experiences that have recently taken place in their lives. If the self-induced amnesia covers all memories of a person’s past and identity, that person may undergo a dissociative fugue.

The self-hypnosis theory might also be used to explain dissociative identity disorder. On the basis of several investigations, some theorists believe that this disorder often begins between the ages of 4 and 6, a time when children are generally very suggestible and excellent hypnotic subjects (Kohen & Olness, 2011; Klüft, 2001, 1987) (see Figure 6-5). These theorists argue that some children who experience abuse or other horrifying events manage to escape their threatening world by self-hypnosis, mentally separating themselves from their bodies and fulfilling their wish to become some other person or persons (Giesbrecht & Merckelbach, 2009). One patient with multiple personalities observed, “I was in a trance often [during my childhood]. There was a little place where I could sit, close my eyes and imagine, until I felt very relaxed just like hypnosis” (Bliss, 1980, p. 1392).

There are different schools of thought about the nature of hypnosis (van der Kruijs et al., 2014; Dell, 2010; Lynn, Rhue, & Kirsch, 2010; Spanos & Coe, 1992). Some theorists see hypnosis as a special process, an out-of-the-ordinary kind of functioning. Accordingly, these theorists contend that people with dissociative amnesia and dissociative identity disorder place themselves in internal trances during which their brain and conscious functioning is significantly altered. Other theorists believe that hypnotic behaviors, and hypnotic amnesia in particular, are produced by common social and cognitive processes, such as high motivation, focused attention, role enactment, and self-fulfilling expectations. According to this point of view, hypnotized people are simply highly motivated individuals performing tasks that are asked of them, while believing all along that the hypnotic state is doing the work for them. Common-process theorists hold that people with dissociative amnesia and dissociative identity disorder provide themselves (or are provided by others) with powerful suggestions to forget and that social and cognitive mechanisms then put the suggestions into practice. Whether hypnosis consists of special or common processes, hypnosis research effectively demonstrates the power of our normal thought processes, and so renders the notion of dissociative disorders somewhat less remarkable.
How Are Dissociative Amnesia and Dissociative Identity Disorder Treated?

As you have seen, people with dissociative amnesia often recover on their own. Only sometimes do their memory problems linger and require treatment. In contrast, people with dissociative identity disorder usually require treatment to regain their lost memories and develop an integrated personality. Treatments for dissociative amnesia tend to be more successful than those for dissociative identity disorder, probably because the former pattern is less complex.

How Do Therapists Help People with Dissociative Amnesia?

The leading treatments for dissociative amnesia are psychodynamic therapy, hypnotic therapy, and drug therapy, although support for these interventions comes largely from case studies rather than controlled investigations (Gentile, Dillon, & Gillig, 2013; Maldonado & Spiegel, 2007, 2003). Psychodynamic therapists guide patients to search their unconscious in the hope of bringing forgotten experiences back to consciousness (Howell, 2011; Bartholomew, 2000). The focus of psychodynamic therapy seems particularly well suited to the needs of people with dissociative amnesia. After all, the patients need to recover lost memories, and the general approach of psychodynamic therapists is to try to uncover memories—as well as other psychological processes—that have been repressed. Thus many theorists, including some who do not ordinarily favor psychodynamic approaches, believe that psychodynamic therapy may be the most appropriate treatment for dissociative amnesia.

Another common treatment for dissociative amnesia is hypnotic therapy, or hypnotherapy (see Table 6-4). Therapists hypnotize patients and then guide them to recall their forgotten events (Degun-Mather, 2002). Given the possibility that dissociative amnesia may be a form of self-hypnosis, hypnotherapy may be a particularly useful intervention. It has been applied both alone and in combination with other approaches (Colletti et al., 2010).

Sometimes injections of barbiturates such as sodium amobarbital (Amytal) or sodium pentobarbital (Pentothal) have been used to help patients with dissociative amnesia regain their lost memories. These drugs are often called “truth serums,” but actually their effect is to calm people and free their inhibitions, thus helping them

<table>
<thead>
<tr>
<th>Myth</th>
<th>Reality</th>
</tr>
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<tbody>
<tr>
<td>Hypnosis relies on having a good imagination.</td>
<td>Vivid imaginations are unrelated to hypnotizability.</td>
</tr>
<tr>
<td>Hypnosis is dangerous.</td>
<td>Hypnosis is no more distressing than a lecture.</td>
</tr>
<tr>
<td>Hypnosis has something to do with a sleeplike state.</td>
<td>Hypnotized people are fully awake.</td>
</tr>
<tr>
<td>Hypnotized people lose control of themselves.</td>
<td>Hypnotized people are perfectly capable of saying no.</td>
</tr>
<tr>
<td>People remember more accurately under hypnosis.</td>
<td>Hypnosis can help create false memories.</td>
</tr>
<tr>
<td>Hypnotized people can be led to do immoral acts.</td>
<td>Hypnotized people fully adhere to their usual values.</td>
</tr>
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to recall anxiety-producing events (Ahern et al., 2000; Fraser, 1993). These drugs do not always work, however, and if used at all, they are likely to be combined with other treatment approaches.

**How Do Therapists Help People with Dissociative Identity Disorder?** Unlike victims of dissociative amnesia, people with dissociative identity disorder do not typically recover without treatment. Treatment for this pattern is complex and difficult, much like the disorder itself. Therapists usually try to help the clients (1) recognize fully the nature of their disorder, (2) recover the gaps in their memory, and (3) integrate their subpersonalities into one functional personality (Gentile et al., 2013; Howell, 2011; North & Yutzy, 2005).

**RECOGNIZING THE DISORDER** Once a diagnosis of dissociative identity disorder is made, therapists typically try to bond with the primary personality and with each of the subpersonalities (Howell, 2011). As bonds are formed, therapists try to educate patients and help them to recognize fully the nature of their disorder (Krakauer, 2001). Some therapists actually introduce the subpersonalities to one another, by hypnosis, for example, or by having patients look at videos of their other personalities (Howell, 2011; Ross & Gahan, 1988). A number of therapists have also found that group therapy helps to educate patients (Fine & Madden, 2000). In addition, family therapy may be used to help educate spouses and children about the disorder and to gather helpful information about the patient (Kluft, 2001, 2000).

**RECOVERING MEMORIES** To help patients recover the missing pieces of their past, therapists typically use the same approaches applied in dissociative amnesia, including psychodynamic therapy, hypnotherapy, and drug treatment (Howell, 2011; Kluft, 2001, 1991, 1985). These techniques work slowly for patients with dissociative identity disorder, however, as some subpersonalities may keep denying experiences that the others recall. One of the subpersonalities may even assume a “protector” role to prevent the primary personality from suffering the pain of recollecting traumatic experiences.

**INTEGRATING THE SUBPERSONALITIES** The final goal of therapy is to merge the different subpersonalities into a single, integrated identity. Integration is a continuous process that occurs throughout treatment until patients “own” all of their behaviors, emotions, sensations, and knowledge. **Fusion** is the final merging of two or more subpersonalities. Many patients distrust this final treatment goal, and their subpersonalities may see integration as a form of death (Howell, 2011; Kluft, 2001, 1999, 1991). Therapists have used a range of approaches to help merge subpersonalities, including psychodynamic, supportive, cognitive, and drug therapies (Cronin et al., 2014; Baker, 2010; Goldman, 1995).

Once the subpersonalities are integrated, further therapy is typically needed to maintain the complete personality and to teach social and coping skills that may help prevent later dissociations. In case reports, some therapists note high success rates (Dorahy et al., 2014; Howell, 2011), but others find that patients continue to resist full integration. A few therapists have in fact questioned the need for full integration.

**Depersonalization-Derealization Disorder**

As you read earlier, DSM-5 categorizes **depersonalization-derealization disorder** as a dissociative disorder, even though it is not characterized by the memory difficulties found in the other dissociative disorders. Its central symptoms are persistent and recurrent episodes of **depersonalization** (the sense that one’s own mental functioning or body are unreal or detached) and/or **derealization** (the sense that one’s surroundings are unreal or detached).
A 24-year-old graduate student . . . had begun to doubt his own reality. He felt he was living in a dream in which he saw himself from without, and did not feel connected to his body or his thoughts. When he saw himself through his own eyes, he perceived his body parts as distorted—his hands and feet seemed quite large. As he walked across campus, he often felt the people he saw might be robots. . . . By his second session, he . . . had begun to perceive [his girlfriend] in a distorted manner. He . . . hesitated before returning, because he wondered whether his therapist was really alive.

(Kluft, 1988, p. 580)

Like this graduate student, people experiencing depersonalization feel as though they have become separated from their body and are observing themselves from outside. Occasionally their mind seems to be floating a few feet above them—a sensation known as doubling. Their body parts feel foreign to them, their hands and feet smaller or bigger than usual. Many sufferers describe their emotional state as “mechanical,” “dreamlike,” or “dizzy.” Throughout the whole experience, however, they are aware that their perceptions are distorted, and in that sense they remain in contact with reality. In some cases this sense of unreality also extends to other sensory experiences and behavior. People may, for example, have distortions in their sense of touch or smell or their judgments of time or space, or they may feel that they have lost control over their speech or actions.

In contrast to depersonalization, derealization is characterized by feeling that the external world is unreal and strange. Objects may seem to change shape or size; other people may seem removed, mechanical, or even dead. The graduate student, for example, saw other people as robots, perceived his girlfriend in a distorted manner, and hesitated to return for a second session of therapy because he wondered whether his therapist was really alive.

Depersonalization and derealization experiences by themselves do not indicate a depersonalization-derealization disorder. Transient depersonalization or derealization reactions are fairly common (Michal, 2011). One-third of all people say that

**Religious dissociations**
As part of religious or cultural practices, many people voluntarily enter into trances that are similar to the symptoms found in dissociative identity disorder and depersonalization-derealization disorder. Here, voodoo followers sing and flail about in trances inside a sacred pool at a temple in Souvenance, Haiti.

In Their Words
“Reality is the leading cause of stress among those in touch with it.”
Lily Tomlin

**BETWEEN THE LINES**
on occasion they have felt as though they were watching themselves in a movie. Similarly, one-third of individuals who confront a life-threatening danger experience feelings of depersonalization or derealization (van Duijl et al., 2010). People sometimes have feelings of depersonalization after practicing meditation or after traveling to new places. Young children may also experience depersonalization from time to time as they are developing their capacity for self-awareness. In most such cases, the affected people are able to compensate for the distortion and continue to function with reasonable effectiveness until the temporary episode eventually ends.

The symptoms of depersonalization–derealization disorder, in contrast, are persistent or recurrent, cause considerable distress, and may impair social relationships and job performance (Michal, 2011; Simeon et al., 2003). The disorder occurs most frequently in adolescents and young adults, hardly ever in people over 40 (Moyano, 2010). It usually comes on suddenly and may be triggered by extreme fatigue, physical pain, intense stress, or recovery from substance abuse. Survivors of traumatic experiences or people caught in life-threatening situations, such as hostages or kidnap victims, seem to be particularly vulnerable to this disorder (van Duijl et al., 2010). The disorder tends to be long-lasting; the symptoms may improve and even disappear for a time, only to return or intensify during times of severe stress. Like the graduate student in our case discussion, many sufferers fear that they are losing their minds and become preoccupied with worry about their symptoms. Few theories have been offered to explain this disorder.

PUTTING IT... together

Getting a Handle on Trauma and Stress

The concepts of trauma and stress have been prominent in the field of abnormal psychology since its earliest days. Dating back to Sigmund Freud, for example, psychodynamic theorists have proposed that most forms of psychopathology—from depression to schizophrenia—begin with traumatic losses or events. Even theorists from the other clinical models agree that people under stress are particularly vulnerable to psychological disorders of various kinds, including anxiety disorders, depressive disorders, eating disorders, substance use disorders, and sexual dysfunctions.

But why and how do trauma and stress translate into psychopathology? That question has, in fact, eluded clinical theorists and researchers—until recent times. Due in part to the identification and study of acute and posttraumatic stress disorders, researchers now better understand the relationship between trauma, stress, and psychological dysfunction—viewing it as a complex interaction of many variables, including biological and genetic factors, personality traits, childhood experiences, social support, multicultural factors, and environmental events. Similarly, clinicians are now developing more effective treatment programs for people with acute and posttraumatic stress disorders—programs that combine biological, behavioral, cognitive, family, and social interventions.

Insights and treatments for the dissociative disorders, the other group of trauma-triggered disorders discussed in this chapter, have not moved as quickly. Although these disorders were among the field’s earliest identified problems, the clinical field stopped paying much attention to them during the latter part of the twentieth century, with some clinicians even questioning the legitimacy of the diagnoses. However, the field’s focus on dissociative disorders has surged during the past two decades—partly because of intense clinical interest in posttraumatic stress reactions and partly because of the growing effort...
to understand physically rooted memory disorders such as Alzheimer’s disease. Researchers have begun to appreciate that dissociative disorders may be more common than clinical theorists had previously recognized. In fact, there is growing evidence that the disorders may be rooted in processes that are already well known from other areas of study, such as state-dependent learning and self-hypnosis.

Amidst the rapid developments in the realms of trauma and stress lies a cautionary tale. When problems are studied heavily, it is common for the public, as well as some researchers and clinicians, to draw conclusions that may be too bold. For example, many people—perhaps too many—are now receiving diagnoses of posttraumatic stress disorder, partly because the symptoms of PTSD are many and because PTSD has received so much attention (Holowka et al., 2014; Wakefield & Horwitz, 2010). Similarly, some of today’s clinicians worry that the resurgent interest in dissociative disorders may be creating a false impression of their prevalence. We shall see such potential problems again when we look at other forms of pathology that are currently receiving great focus, such as bipolar disorder among children and attention-deficit/hyperactivity disorder. The line between enlightenment and overenthusiasm is often thin.

**SUMMING UP**

- **EFFECTS OF STRESS** When we appraise a stressor as threatening, we often experience a stress response consisting of arousal and a sense of fear. The features of arousal and fear are set in motion by the hypothalamus, a brain area that activates the autonomic nervous system and the endocrine system. There are two pathways by which these systems produce arousal and fear—the sympathetic nervous system pathway and the hypothalamic-pituitary-adrenal pathway. pp. 177–180

- **ACUTE AND POSTTRAUMATIC STRESS DISORDERS** People with acute stress disorder or posttraumatic stress disorder react with arousal, anxiety and mood problems, and other stress symptoms after a traumatic event, including reexperiencing the traumatic event, avoiding related events, being markedly less responsive than normal, and feeling guilt. Traumatic events may include combat experiences, disasters, or episodes of victimization. The symptoms of acute stress disorder begin soon after the trauma and last less
than a month. Those of posttraumatic stress disorder may begin at any time (even years) after the trauma and may last for months or years.

In attempting to explain why some people develop a psychological stress disorder and others do not, researchers have focused on biological factors, personality, childhood experiences, social support, multicultural factors, and the severity of the traumatic event. Techniques used to treat the stress disorders include drug therapy, behavioral exposure, cognitive and other insight therapies, family therapy, and group therapy (including rap groups for combat veterans). Rapidly mobilized community interventions often follow the principles of critical incident stress debriefing. Such approaches initially appeared helpful after large-scale disasters; however, some recent studies have raised questions about their usefulness. pp. 181–196

**DISSOCIATIVE DISORDERS** People with dissociative disorders experience major changes in memory and identity that are not caused by clear physical factors—changes that often emerge after a traumatic event. Typically, one part of the memory or identity is dissociated, or separated, from the other parts. People with dissociative amnesia are unable to recall important personal information or past events in their lives. Those with dissociative fugue, an extreme form of dissociative amnesia, not only fail to remember personal information, but also flee to a different location and may establish a new identity. In another dissociative disorder, dissociative identity disorder (multiple personality disorder), a person develops two or more distinct subpersonalities. pp. 197–203

**EXPLANATIONS AND TREATMENTS FOR DISSOCIATIVE AMNESIA AND DISSOCIATIVE IDENTITY DISORDER** Dissociative amnesia and dissociative identity disorder are not well understood. Among the processes that have been cited to explain them are extreme repression, operant conditioning, state-dependent learning, and self-hypnosis. The latter two phenomena, in particular, have excited the interest of clinical scientists.

Dissociative amnesia may end on its own or may require treatment. Dissociative identity disorder typically requires treatment. Approaches commonly used to help people with dissociative amnesia recover their lost memories are psychodynamic therapy, hypnotic therapy, and sodium amobarbital or sodium pentobarbital. Therapists who treat people with dissociative identity disorder use the same approaches and also try to help the clients recognize the nature and scope of their disorder, recover the gaps in their memory, and integrate their subpersonalities into one functional personality. pp. 203–209

**DEPERSONALIZATION-DEREALIZATION DISORDER** People with yet another kind of dissociative disorder, depersonalization-derealization disorder, feel as though they are detached from their own mental processes or body and are observing themselves from the outside, or feel as though the people or objects around them are unreal or detached. Transient depersonalization and derealization experiences seem to be relatively common, while depersonalization-derealization disorder is not. pp. 209–211
The first conscious thought that all was not well with me came... when I was twenty-two. I had been living in Los Angeles for two years, working various temp jobs while trying to establish myself as a writer and performance artist. Out of nowhere and for no apparent reason—or so it seemed—I started feeling strong sensations of grief. I don’t remember the step-by-step progression of the illness. What I can recall is that my life disintegrated; first, into a strange and terrifying space of sadness and then, into a cobweb of fatigue. I gradually lost my ability to function. It would take me hours to get up out of bed, get bathed, put clothes on. By the time I was fully dressed, it was well into the afternoon. When I went out into the city, I would always become disoriented, often spacing out behind the wheel of my car or in the middle of a sentence. My thoughts would just disappear. I’d forget where I was driving to, the point I was about to make in conversation. It was as if my synapses were misfiring, my brain off kilter. A simple stroll to the coffee shop down the block overloaded my senses: sounds of feet shuffling on sidewalks, honks from cars, blinking of traffic lights, loud colors of clothing. It was all bewildering.... After a while I stopped showing up at my temp job, stopped going out altogether, and locked myself in my home. It was over three weeks before I felt well enough to leave. During that time, I cut myself off from everything and everyone. Days would go by before I bathed. I did not have enough energy to clean up myself or my home. There was a trail of undergarments and other articles of clothing that ran from the living room to the bedroom to the bathroom of my tiny apartment. Dishes with decaying food covered every counter and tabletop in the place. Even watching TV or talking on the phone required too much concentration. All I could do was take to my pallet of blankets and coats positioned on the living room floor and wait for whatever I was going through to pass. And it did. Slowly.... The problem is that there is no telling when [depression] will go away or for how long it will stay gone.... During the time I was laid up in my apartment making huge efforts to do simple things like brush my teeth and pull open the curtains, people had traveled, landscapes had changed; the world as I had known it before I surrendered and crawled into bed was no more. There was no escaping that episode without acknowledging that something extraordinary had happened to me. Ordinary folks just don’t hole themselves up for weeks on end without bathing, working, reading the newspaper, talking to friends, or watching TV. Deep down, I knew that something had gone wrong with me, in me. But what could I do? Stunned and defenseless, the only thing I felt I could do was move on. I assured myself that my mind and the behaviors it provoked were well within my control. In the future I would just have to be extremely aware. I would make sure that what happened did not happen again. But it did. Again and again, no matter how aware, responsible, or in control I tried to be. Each time, I chastised myself for not paying attention to my emotions, for allowing myself to sink to such disgusting depths.

Each wave of the depression cost me something dear. I lost my job because the temp agencies where I was registered could no longer tolerate my lengthy absences. Unable to pay rent, I lost my apartment and ended up having to rent a small room in a boarding house. I lost my friends. Most of them found it too troublesome to deal with my sudden moodiness and passivity so they stopped calling and coming around. There were some that tried to hang in there and be supportive, but before long the depression took its toll on those relationships as well. Whenever I resurfaced from my episodes of depression, it was too hard to pick up where we had left off. “You’ve changed,” my friends told me. “You’re not the same person.” How could I be? How could anyone be the same after their entire world has come to a screeching halt?

(Danquah, 1998)
Most people’s moods come and go. Their feelings of elation or sadness are understandable reactions to daily events and do not affect their lives greatly. However, the moods of certain people last a long time. As in the case of Meri Nana–Ama Danquah, a performance artist and poet who described her disorder above, their moods color all of their interactions with the world and even interfere with normal functioning. Such people struggle in particular with depression, mania, or both. Depression is a low, sad state in which life seems dark and its challenges overwhelming. Mania, the opposite of depression, is a state of breathless euphoria, or at least frenzied energy, in which people may have an exaggerated belief that the world is theirs for the taking.

Mood problems of these kinds are at the center of two groups of disorders—depressive disorders and bipolar disorders (APA, 2013). These groups are examined in this chapter. People with depressive disorders suffer only from depression, a pattern called unipolar depression. They have no history of mania and return to a normal or nearly normal mood when their depression lifts. In contrast, those with bipolar disorders have periods of mania that alternate with periods of depression. You might logically expect some people to display a third pattern of mood difficulty, unipolar mania, in which they suffer from mania only, but this pattern is uncommon.

Mood problems have always captured people’s interest, in part because so many famous people have suffered from them. The Bible speaks of the severe depressions of Nebuchadnezzar, Saul, and Moses. Queen Victoria of England and Abraham Lincoln seem to have experienced recurring depressions. Mood difficulties also have plagued writers Ernest Hemingway and Sylvia Plath, comedians Jim Carrey and Rodney Dangerfield, and musical performers Eminem and Beyoncé. Their problems have been shared by millions, and today the economic costs of depressive and bipolar disorders amount to many billions of dollars each year (NAMI, 2014; Dilsaver, 2011). Of course, the human suffering that severe mood difficulties cause is beyond calculation.

Unipolar Depression: The Depressive Disorders

Whenever we feel particularly unhappy, we are likely to describe ourselves as “depressed.” In all likelihood, we are merely responding to sad events, fatigue, or unhappy thoughts. This loose use of the term confuses a perfectly normal mood swing with a clinical syndrome. All of us experience dejection from time to time, but only some experience a depressive disorder.

Normal dejection is seldom severe enough to influence daily functioning significantly or persist very long. Such downturns in mood can even be beneficial. Periods spent in contemplation can lead us to explore our inner selves, our values, and our way of life, and we often emerge with an increased sense of strength, clarity, and resolve.

Depressive disorders, on the other hand, have no redeeming characteristics. They bring severe and long-lasting psychological pain that may intensify as time goes by. Those who suffer from such disorders may lose their will to carry out the simplest of life’s activities; some even lose their will to live.

How Common Is Unipolar Depression?

Around 9 percent of adults in the United States suffer from a severe unipolar pattern of depression in any given year, while as many as 5 percent suffer from mild forms (Kessler et al., 2012, 2010, 2005). Around 18 percent of all adults experience
an episode of severe unipolar depression at some point in their lives. These prevalence rates are similar in Canada, England, France, and many other countries (see Table 7-1). Moreover, the rate of depression—mild or severe—is higher among poor people than wealthier people (Sareen et al., 2011).

People of any age may suffer from unipolar depression. In most countries, however, people in their forties are more likely than those in any other age group to experience this problem (CDC, 2012). The median age for its onset, now 26 in the United States, keeps dropping for each generation, and worldwide research projects suggest that the risk of experiencing unipolar depression has increased steadily since 1915 (González et al., 2010; Weissman et al., 1992, 1991).

Women are at least twice as likely as men to have episodes of severe unipolar depression (WHO, 2014; Astbury, 2010). As many as 26 percent of women have an episode at some time in their lives, compared with 12 percent of men. As you will see in Chapter 17, among children the prevalence of unipolar depression is similar for girls and boys.

Approximately 85 percent of people with unipolar depression recover, some without treatment. At least 40 percent of them have at least one other episode of depression later in their lives (Monroe, 2010; Whisman & Schonbrun, 2010; Eaton et al., 2008).

What Are the Symptoms of Depression?
The picture of depression may vary from person to person. Earlier you saw how Meri’s profound sadness, fatigue, and cognitive deterioration brought her job and social life to a standstill. Some depressed people have symptoms that are less severe. They manage to function, although their depression typically robs them of much effectiveness or pleasure.

As the case of Meri indicates, depression has many symptoms other than sadness. The symptoms, which often exacerbate one another, span five areas of functioning: emotional, motivational, behavioral, cognitive, and physical.

Emotional Symptoms Most people who are depressed feel sad and dejected. They describe themselves as feeling “miserable,” “empty,” and “humiliated.” They tend to lose their sense of humor, report getting little pleasure from anything, and in some cases display anhedonia, an inability to experience any pleasure at all. A number also experience anxiety, anger, or agitation. This sea of misery may lead to crying spells (see MediaSpeak on the next page). Terrie Williams, author of Black Pain, a book about depression in African Americans, describes the agony she went through each morning as her depression was unfolding:

Nights I could handle. I fell asleep easily, and sleep allowed me to forget. But my mornings were unmanageable. To wake up each morning was to remember once again that the world by which I defined myself was no more. Soon after opening my eyes, the crying bouts would start and I’d sit alone for hours, weeping and mourning my losses.  

(Williams, 2008, p. 9)

Motivational Symptoms Depressed people typically lose the desire to pursue their usual activities. Almost all report a lack of drive, initiative, and spontaneity. They may have to force themselves to go to work, talk with friends, eat meals, or

Across the World: What Percentage of Adults Suffer from Major Depressive Disorder Each Year?

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>10.4</td>
</tr>
<tr>
<td>Ukraine</td>
<td>8.4</td>
</tr>
<tr>
<td>United States</td>
<td>8.3</td>
</tr>
<tr>
<td>New Zealand</td>
<td>6.6</td>
</tr>
<tr>
<td>Colombia</td>
<td>6.2</td>
</tr>
<tr>
<td>Israel</td>
<td>6.1</td>
</tr>
<tr>
<td>France</td>
<td>5.9</td>
</tr>
<tr>
<td>Lebanon</td>
<td>5.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.9</td>
</tr>
<tr>
<td>South Africa</td>
<td>4.9</td>
</tr>
<tr>
<td>Spain</td>
<td>4.0</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.0</td>
</tr>
<tr>
<td>Italy</td>
<td>3.0</td>
</tr>
<tr>
<td>Germany</td>
<td>3.0</td>
</tr>
<tr>
<td>Japan</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Information from: Bromet et al., 2011

- **depression** A low, sad state marked by significant levels of sadness, lack of energy, low self-worth, guilt, or related symptoms.
- **mania** A state or episode of euphoria or frenzied activity in which people may have an exaggerated belief that the world is theirs for the taking.
- **depressive disorders** The group of disorders marked by unipolar depression.
- **unipolar depression** Depression without a history of mania.
- **bipolar disorder** A disorder marked by alternating or intermixed periods of mania and depression.
The Crying Game: Male Versus Female Tears

By Jocelyn Noveck, The Associated Press

"Please, please, please, just give the dog back," Ellen DeGeneres wept on national TV. It was a moment that quickly established itself in the pop-culture firmament, less for the plight of Iggy the adopted terrier than for the copious crying itself.

(To recap: DeGeneres had adopted Iggy from a rescue organization, then given it to her hairdresser's family when the dog didn't get along with her cats. That was against the rules, and the rescue group took the dog back. . .)

Setting aside the question of whether those sobs were 100 percent genuine, tears are a natural human response, and public figures are obviously not immune. But some who study this most basic expression of feeling will tell you that in this day and age, it can be easier for a crying man to be taken seriously than a crying woman.

In politics, it's a far cry . . . from 1972, when Sen. Ed Muskie's presidential campaign was derailed by what were perceived to be tears in response to a newspaper attack on his wife. But decades later, an occasional Clintonesque tear is seen as a positive thing.

Bill Clinton, that is.

"Bill could cry, and did, but Hillary can't," says Tom Lutz, a professor at the University of California, Riverside, who authored an exhaustive history of crying. . . . The same tearful response that would be seen as sensitivity in Bill could be seen as a lack of control in his wife.

But there are additional rules for acceptable public crying. "We're talking about dropping a tear," Lutz notes, "no more than a tear or two." And it all depends on the perceived seriousness of the subject matter. Thus Jon Stewart or David Letterman could choke up with impunity just after 9/11. But a dog-adoption problem is a whole other matter.

In a recently published study at Penn State, researchers sought to explore differing perceptions of crying in men and women, presenting their 284 subjects with a series of hypothetical vignettes. Reactions depended on the type of crying, and who was doing it. A moist eye was viewed much more positively than open crying, and males got the most positive responses.

"Women are not making it up when they say they're damned if they do, damned if they don't," said Stephanie Shields, the psychology professor who conducted the study. "If you don't express any emotion, you're seen as not human, like Mr. Spock on 'Star Trek,'" she said. "But too much crying, or the wrong kind, and you're labeled as overemotional, out of control and possibly irrational."

That comes as no surprise to Suzyn Waldman, a well-known broadcaster of Yankee games on New York's WCBS Radio. Earlier this month, she choked up on live radio after the Yankees had just been eliminated from the playoffs. She was describing the scene as [the] coaches choked up themselves. . . . Her tearful report quickly became an Internet hit, and she was mocked far and wide, especially on radio. . . .

"When men express anger they gain status, but when women express anger they lose status," [says] Yale social psychologist Victoria Brescoll. . . .

For a little historical perspective, says Lutz, author of "Crying: The Natural and Cultural History of Tears," it's helpful to look back to the 19th century, when skillful politicians like Abraham Lincoln used tears as a natural part of their oratory.

The tide later shifted against male crying, but in the past 30 to 40 years male crying has gained in acceptability. "Every president since Ronald Reagan has used tears at some point," says Shields, the Penn State psychologist. . . . Military figures have cried at critical moments. Gen. Norman Schwarzkopf cried at a Christmas Eve ceremony in front of his troops, and when interviewed by Barbara Walters, Lutz notes.

. . . But in DeGeneres' case, along with the strong support from fans and many dog lovers, she also endured some criticism and mockery. . . .

Jocelyn Noveck, "The Crying Game: Male vs. Female Tears," The Associated Press, October 25, 2007. Used with permission of The Associated Press Copyright© 2014. All rights reserved.
have sex. This state has been described as a “paralysis of will” (Beck, 1967). Terrie describes her social withdrawal during a depressive episode:

> I woke up one morning with a knot of fear in my stomach so crippling that I couldn’t face light, much less day, and so intense that I stayed in bed for three days with the shades drawn and the lights out.

> Three days. Three days not answering the phone. Three days not checking my e-mail. I was disconnected completely from the outside world, and I didn’t care.

> Then on the morning of the fourth day there was a knock on my door. Since I hadn’t ordered food I ignored it. The knocking kept up and I kept ignoring it. I heard the sound of keys rattling in my front door. Slowly the bedroom door opened and in the painful light from the doorway I saw the figures of two old friends. “Terrie, are you in there?”

(Williams, 2008, p. xxiv)

Suicide represents the ultimate escape from life’s challenges. As you will see in Chapter 9, many depressed people become uninterested in life or wish to die; others wish they could kill themselves, and some actually do. It has been estimated that between 6 and 15 percent of people who suffer from severe depression commit suicide (MHF, 2014; Alridge, 2012; Mulholland, 2010).

**Behavioral Symptoms** Depressed people are usually less active and less productive. They spend more time alone and may stay in bed for long periods. One man recalls, “I’d awaken early, but I’d just lie there—what was the use of getting up to a miserable day?” (Kraines & Thetford, 1972, p. 21). Depressed people may also move and even speak more slowly (Behrman, 2014).

**Cognitive Symptoms** Depressed people hold extremely negative views of themselves. They consider themselves inadequate, undesirable, inferior, perhaps evil (Lopez Molina et al., 2014; Sowislo & Orth, 2012). They also blame themselves for nearly every unfortunate event, even things that have nothing to do with them, and they rarely credit themselves for positive achievements.

Another cognitive symptom of depression is pessimism. Sufferers are usually convinced that nothing will ever improve, and they feel helpless to change any aspect of their lives. Because they expect the worst, they are likely to procrastinate. Their sense of hopelessness and helplessness makes them especially vulnerable to suicidal thinking (Shiratori et al., 2014; Wilson & Deane, 2010).

People with depression frequently complain that their intellectual ability is poor. They feel confused, unable to remember things, easily distracted, and unable to solve even the smallest problems. In laboratory studies, depressed people do perform more poorly than nondepressed people on some tasks of memory, attention, and reasoning (Chen et al., 2013; Lyche et al., 2011). It may be, however, that these difficulties sometimes reflect motivational problems rather than cognitive ones.

**Physical Symptoms** People who are depressed frequently have such physical ailments as headaches, indigestion, constipation, dizzy spells, and general pain (Bai et al., 2014; Goldstein et al., 2011). In fact, many depressions are misdiagnosed as medical problems at first (Parker & Hyett, 2010). Disturbances in appetite and sleep
are particularly common (Jackson et al., 2014; Armitage & Arnedt, 2011). Most depressed people eat less, sleep less, and feel more fatigued than they did prior to the disorder. Some, however, eat and sleep excessively. Terrie Williams describes the changes in the pattern of her sleep:

> At first I didn’t notice the change. Then things got worse. I always hated waking up, but slowly it was turning into something deeper; it was less like I didn’t want to wake up, and more like I couldn’t. I didn’t feel tired, but I had no energy. I didn’t feel sleepy, but I would have welcomed sleep with open arms. I had the sensation of a huge weight, invisible but gigantic, pressing down on me, almost crushing me into the bed and pinning me there.

(Williams, 2008, p. xxii)

### Diagnosing Unipolar Depression

According to DSM-5, a **major depressive episode** is a period of two or more weeks marked by at least five symptoms of depression, including sad mood and/or loss of pleasure (see Table 7-2). In extreme cases, the episode may include psychotic symptoms, ones marked by a loss of contact with reality, such as delusions—bizarre ideas without foundation—or hallucinations—perceptions of things that are not actually present. A depressed man with psychotic symptoms may imagine that he cannot eat “because my intestines are deteriorating and will soon stop working,” or he may believe that he sees his dead wife.

DSM-5 lists several types of depressive disorders. People who go through a major depressive episode without having any history of mania receive a diagnosis of **major depressive disorder** (APA, 2013) (see Table 7-2 again). The disorder may be additionally categorized as **seasonal** if it changes with the seasons (for example, if the depression recurs each winter), catatonic if it is marked by either immobility or excessive activity, peripartum if it occurs during pregnancy or within four weeks of giving birth (see PsychWatch on the next page), or melancholic if the person is almost totally unaffected by pleasurable events. It sometimes turns out that an apparent case of major depressive disorder is, in fact, a depressive episode occurring within a larger pattern of bipolar disorder—a pattern in which the person’s manic episode has not yet appeared. When the person has a manic episode at a later time, the diagnosis is changed to bipolar disorder.

People whose unipolar depression is chronic receive a diagnosis of **persistent depressive disorder** (APA, 2013) (see Table 7-2 again). Some people with this chronic disorder have repeated major depressive episodes, a pattern technically called persistent depressive disorder with major depressive episodes. Others have less severe and less disabling symptoms, a pattern technically called persistent depressive disorder with dysthymic syndrome.

A third type of depressive disorder is **premenstrual dysphoric disorder**, a diagnosis given to certain women who repeatedly have clinically significant depressive and related symptoms during the week before menstruation. This inclusion of this pattern in DSM-5 is controversial, as you will observe later (see page 238).
Sadness at the Happiest of Times

Women usually expect the birth of a child to be a happy experience. But for 10 to 30 percent of new mothers, the weeks and months after childbirth bring clinical depression (Guintivano et al., 2014; Kendall-Tackett, 2010; Mauthner, 2010). Peripartum depression, popularly called postpartum depression, typically begins within four weeks after the birth of a child; many cases actually begin during pregnancy (APA, 2013). This disorder is far more severe than simple “baby blues.” It is also different from other postpartum syndromes such as postpartum psychosis, a problem that is examined in Chapter 14.

The “baby blues” are so common—as many as 80 percent of women experience them—that most researchers consider them normal. As new mothers try to cope with the wakeful nights, rattled emotions, and other stresses that accompany the arrival of a new baby, they may have crying spells, fatigue, anxiety, insomnia, and sadness (Enatescu et al., 2014). These symptoms usually disappear within days or weeks (Kendall-Tackett, 2010; Horowitz et al., 2005, 1995).

In postpartum depression, however, depressive symptoms continue and may last up to a year or more. The symptoms include extreme sadness, despair, tearfulness, insomnia, anxiety, intrusive thoughts, compulsions, panic attacks, feelings of inability to cope, and suicidal thoughts. The mother–infant relationship and the psychological and physical health of the child may suffer as a result (Kendall-Tacket, 2010; Monti et al., 2004). Women who have an episode of postpartum depression have a 25 to 50 percent chance of developing it again with a subsequent birth (Stevens et al., 2002).

Many clinicians believe that the hormonal changes accompanying childbirth trigger postpartum depression. All women go through a kind of hormone “withdrawal” after delivery, as estrogen and progesterone levels, which rise as much as 50 times above normal during pregnancy, now drop sharply to levels far below normal (Horowitz et al., 2005, 1995). Perhaps some women are particularly influenced by these dramatic hormone changes (Mehta et al., 2014). Other theorists suggest that some women may have a genetic predisposition to postpartum depression (Guintivano et al., 2014; Comasco et al., 2011). A woman with a family history of mood disorders appears to be at high risk, even if she herself has not previously had a mood disorder (Phillips, 2011; APA, 2000).

At the same time, psychological and sociocultural factors may play important roles in the disorder (Mauthner, 2010). The birth of a baby brings enormous psychological and social change. A woman typically faces changes in her marital relationship, daily routines, and social roles. Sleep and relaxation are likely to decrease, and financial pressures may increase. Perhaps she feels the added stress of giving up a career—or of trying to maintain one. This pileup of stress may heighten the risk of depression (Phillips, 2011; Kendall-Tackett, 2010). Mothers whose infants are sick or temperamentally “difficult” may be under yet additional pressure. Mothers who have an episode of postpartum depression have a 25 to 50 percent chance of developing it again with a subsequent birth (Stevens et al., 2002).

Fortunately, treatment can make a big difference for most women with postpartum depression. Self-help support groups have proved extremely helpful for many women who have or who are at risk for postpartum depression (Dennis, 2014; Evans et al., 2012). In addition, many respond well to the same approaches that are applied to other forms of depression—antidepressant medications, cognitive therapy, interpersonal psychotherapy, or a combination of these approaches (Hou et al., 2014; Kim et al., 2014; Phillips, 2011).

However, many women who would benefit from treatment do not seek help because they feel ashamed about being sad at a time that is supposed to be joyous and are concerned about being judged harshly (Bina, 2014; Mauthner, 2010). For them, and for the spouses and family members close to them, a large dose of education is in order. Even positive events, such as the birth of a child, can be stressful if they also bring major change to one’s life. Recognizing and addressing such feelings are in everyone’s best interest.

“I felt like a failure” Accomplished actress and musician Gwyneth Paltrow, seen here performing at the Annual Country Music Awards in Nashville, Tennessee, recently revealed that she suffered from postpartum depression for a number of months after giving birth to her second child in 2006. Said Paltrow, “I felt like a zombie. . . . I couldn’t connect. . . . I thought it meant I was a terrible mother and person. . . . I felt like a failure.”
Yet another kind of depressive disorder, *disruptive mood dysregulation disorder*, is characterized by a combination of persistent depressive symptoms and recurrent outbursts of severe temper. This disorder emerges during mid-childhood or adolescence and so is discussed in Chapter 17, “Disorders Common Among Children and Adolescents.”

### What Causes Unipolar Depression?

Episodes of unipolar depression often seem to be triggered by stressful events (Fisher et al., 2012; Gutman & Nemeroff, 2011). In fact, researchers have found that depressed people have a larger number of stressful life events during the month just before the onset of their disorder than do other people during the same period of time. Of course, stressful life events also precede other psychological disorders, but depressed people often report more such events than anybody else.

Some clinicians consider it important to distinguish a *reactive* (*exogenous*) depression, which follows clear-cut stressful events, from an *endogenous* depression, which seems to be a response to internal factors. But can one ever know for certain whether a depression is reactive or not? Even if stressful events occurred before the onset of depression, that depression may not be reactive. The events could actually be a coincidence. Thus, today’s clinicians usually concentrate on recognizing both the situational and the internal aspects of any given case of unipolar depression.

The current explanations of unipolar depression point to biological, psychological, and sociocultural factors. Just as clinicians now recognize both internal and situational features in each case of depression, many believe that the various explanations should be viewed collectively for unipolar depression to be understood fully.

### The Biological View

Medical researchers have been aware for years that certain diseases and drugs produce mood changes. Could unipolar depression itself have biological causes? Evidence from genetic, biochemical, anatomical, and immune system studies suggests that often it does.

**Genetic Factors** Four kinds of research—family pedigree, twin, adoption, and molecular biology gene studies—suggest that some people inherit a predisposition to unipolar depression (McGuffin, 2014). *Family pedigree studies* select people with unipolar depression as *probands* (the proband is the person who is the focus of a genetic study), examine their relatives, and see whether depression also afflicts other members of the family. If a predisposition to unipolar depression is inherited, a proband’s relatives should have a higher rate of depression than the population at large. Researchers have in fact found that as many as 30 percent of those relatives are depressed (see Table 7-3), compared with fewer than 10 percent of the general population (Levinson & Nichols, 2014; Berrettini, 2006).

If a predisposition to unipolar depression is inherited, you might also expect to find a particularly large number of cases among the close relatives of a proband. *Twin studies* have supported this expectation (Levinson & Nichols, 2014). One study looked at nearly 200 pairs of twins. When a monozygotic (identical) twin had unipolar depression, there was a 46 percent chance that the other twin would have the same disorder. In contrast, when a dizygotic (fraternal) twin had unipolar depression, the other twin had only a 20 percent chance of developing the disorder (McGuffin et al., 1996).
Adoption studies have also implicated a genetic factor, at least in cases of severe unipolar depression. One study looked at the families of adopted persons who had been hospitalized for this disorder in Denmark. The biological parents of these adoptees turned out to have a higher incidence of severe depression (but not mild depression) than did the biological parents of a control group of nondepressed adoptees (Levinson & Nichols, 2014; Kamali & McInnis, 2011). Some theorists interpret these findings to mean that severe depression is more likely than mild depression to be caused by genetic factors.

Finally, today’s scientists have at their disposal techniques from the field of molecular biology to help them directly identify genes and determine whether certain gene abnormalities are related to depression. Using such techniques, researchers have found evidence that unipolar depression may be tied to genes on chromosomes 1, 4, 9, 10, 11, 12, 13, 14, 17, 18, 20, 21, 22, and X (Preuss et al., 2013; Kamali & McInnis, 2011). For example, a number of researchers have found that people who are depressed often have an abnormality of their 5-HTT gene, a gene located on chromosome 17. This gene is responsible for the brain’s production of serotonin transporters, or 5-HTT’s, proteins that help the neurotransmitter serotonin carry messages from one neuron to another. As you will read in the next section, low activity of serotonin is closely tied to depression. People with an abnormality of the serotonin transporter gene are more likely than others to display low serotonin activity in their brains and may in turn be more prone to depression.

### Biochemical Factors

Low activity of two neurotransmitter chemicals, norepinephrine and serotonin, has been strongly linked to unipolar depression. In the 1950s, several pieces of evidence began to point to this relationship. First, medical researchers discovered that reserpine and other medications for high blood pressure often caused depression (Ayd, 1956). As it turned out, some of these medications lowered norepinephrine activity and others lowered serotonin. A second piece of evidence was the discovery of the first truly effective antidepressant drugs. Although these drugs were discovered by accident, researchers soon learned that they relieve depression by increasing either norepinephrine or serotonin activity.

For years it was thought that low activity of either norepinephrine or serotonin was capable of producing depression, but investigators now believe that their relation to depression is more complicated (Ding et al., 2014; Goldstein et al., 2011). Research suggests that interactions between serotonin and norepinephrine activity, or between these and other kinds of neurotransmitters in the brain, rather than the individual neurotransmitter activities, are the true determinants of depression.

### Table: 7-3

<table>
<thead>
<tr>
<th>Disorder</th>
<th>One-Year Prevalence (Percent)</th>
<th>Female-to-Male Ratio</th>
<th>Typical Age at Onset (Years)</th>
<th>Prevalence Among First-Degree Relatives</th>
<th>Percentage Receiving Currently Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depressive disorder</td>
<td>8.0</td>
<td>2:1</td>
<td>24–29</td>
<td>Elevated</td>
<td>50.0</td>
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<tr>
<td>Persistent depressive disorder (with dysthymic syndrome)</td>
<td>1.5–5.0</td>
<td>Between 3:2 and 2:1</td>
<td>10–25</td>
<td>Elevated</td>
<td>36.8</td>
</tr>
<tr>
<td>Bipolar I disorder</td>
<td>1.6</td>
<td>1:1</td>
<td>15–44</td>
<td>Elevated</td>
<td>33.8</td>
</tr>
<tr>
<td>Bipolar II disorder</td>
<td>1.0</td>
<td>1:1</td>
<td>15–44</td>
<td>Elevated</td>
<td>33.8</td>
</tr>
<tr>
<td>Cyclothymic disorder</td>
<td>0.4</td>
<td>1:1</td>
<td>15–25</td>
<td>Elevated</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Information from: González et al., 2010; Taube-Schiff & Lau, 2008; Kessler et al., 2005, 1994; APA, 2000, 1994; Regier et al., 1993; Weissman et al., 1991.
operation of any one neurotransmitter alone, may account for unipolar depression. Some studies hint, for example, that depressed people have an overall imbalance in the activity of the neurotransmitters serotonin, norepinephrine, dopamine, and acetylcholine. In a variation of this theory, some researchers believe that serotonin is actually a *neuromodulator*, a chemical whose primary function is to increase or decrease the activity of other key neurotransmitters. If so, perhaps low serotonin activity serves to disrupt the activity of the other neurotransmitters, resulting in depression.

Biological researchers have also learned that the body’s *endocrine system* may play a role in unipolar depression (Treadway & Pizzagalli, 2014). As you have seen, endocrine glands throughout the body release *hormones*, chemicals that in turn spur body organs into action (see Chapter 6). People with unipolar depression have been found to have abnormally high levels of *cortisol*, one of the hormones released by the adrenal glands during times of stress (Marchand et al., 2014; Owens et al., 2014). This relationship is not all that surprising, given that stressful events often seem to trigger depression. Another hormone that has been tied to depression is *melatonin*, sometimes called the “Dracula hormone” because it is released only in the dark.

Still other biological researchers are starting to believe that unipolar depression is tied more closely to what happens within neurons than to the chemicals that carry messages between neurons. They believe that activity by key neurotransmitters or hormones ultimately leads to deficiencies of certain proteins and other chemicals within neurons, particularly to deficiencies of *brain-derived neurotrophic factor* (BDNF), a chemical that promotes the growth and survival of neurons (Duman, 2014; van der Meij et al., 2014). Such deficiencies within neurons may impair the health of the neurons and lead in turn to depression.

The biochemical explanations of unipolar depression have produced much enthusiasm, but research in this area has certain limitations. Some of it has relied on *analogue studies*, which create depression-like symptoms in laboratory animals. Researchers cannot be certain that these symptoms do in fact reflect the human disorder. Similarly, until recent years, technology was limited, and studies of human depression had to measure brain biochemical activity indirectly. As a result, investigators could never be certain of the biochemical events that were taking place in the brain. Current studies using newer technology, such as PET and MRI scans, are helping to eliminate such uncertainties about such brain activity.

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**Lighting up depression**

In London’s Trafalgar Square, people sit and stand around an art installation called the Trafalgar Sun during the gloomy days of January, basking in the rays of the artificial sun. Winter depression has been linked to a decrease in the amount of light people are exposed at that time of the year and to an accompanying shift in secretions of the hormone melatonin.

**Serious Oversight**

Family physicians, internists, and pediatricians fail to detect depression in at least 50 percent of their depressed patients (Culpepper & Johnson, 2011; Mitchell et al., 2011).
Brain Anatomy and Brain Circuits In Chapters 5 and 6, you read that many biological researchers now believe that the root cause of psychological disorders involves more than just a single neurotransmitter or single brain area. They have determined that emotional reactions of various kinds are tied to brain circuits—networks of brain structures that work together, triggering each other into action and producing a particular kind of emotional reaction. It appears that one brain circuit is tied largely to generalized anxiety disorder, another to panic disorder, and yet another to obsessive-compulsive disorder. Although research is far from complete, a brain circuit responsible for unipolar depression has also begun to emerge (Treadway & Pizzagalli, 2014; Brockmann et al., 2011). An array of brain-imaging studies point to several brain areas that are likely members of this circuit, including the prefrontal cortex, the hippocampus, the amygdala, and Brodmann Area 25, an area located just under the brain part called the cingulate cortex (see Figure 7-1). Not surprisingly, this circuit is filled with serotonin transporters, or 5-HTTs, those proteins that help serotonin carry messages from one neuron to another (Selvaraj et al., 2011). Earlier you read that people with an abnormal 5-HTT gene are more prone to develop depression.

The prefrontal cortex is located within the frontal cortex of the brain. Because it receives information from a number of other brain areas, the prefrontal cortex is involved in many important functions, including mood, attention, and immune functioning. Several imaging studies have found lower activity and blood flow in the prefrontal cortex of depressed research participants than in the prefrontal cortex of nondepressed people (Vialou et al., 2014). However, other studies, focusing on select areas of the prefrontal cortex, have found increases in activity during depression (Lemogne et al., 2010; Drevets, 2001, 2000). Correspondingly, research finds that the prefrontal cortex activity of depressed individuals increases after successful treatment by some antidepressant drugs, but decreases after successful treatment by other kinds of antidepressant drugs (Cook & Leuchter, 2001). Given these varied findings, researchers currently believe that the prefrontal cortex plays a critical role in depression but that the specific nature of this role has yet to be clearly defined (Treadway & Pizzagalli, 2014; Goldstein et al., 2011).

The prefrontal cortex has strong neural connections with another part of the depression brain circuit, the hippocampus. Indeed, messages are both sent and received between the two brain areas. The hippocampus is one of the few brain areas to produce new neurons throughout adulthood, an activity known as neurogenesis. Several studies indicate that such hippocampal neurogenesis decreases dramatically when a person becomes depressed (Kubera et al., 2011; Airan et al., 2007). Correspondingly, when depressed people are successfully treated by antidepressant drugs, neurogenesis in the hippocampus returns to normal (Malberg & Schechter, 2005). Moreover, some imaging studies have detected a reduction in the size of the hippocampus among depressed persons (Goldstein et al., 2011; Campbell et al., 2004). Recall from Chapter 6 that the hippocampus helps to control the brain’s and body’s reactions to stress and plays a role in the formation and recall of emotional memories. Thus, its role in depression is not surprising.

You may also recall from Chapters 5 and 6 that the amygdala is a brain area that repeatedly seems to be involved in the expression of negative emotions and memories. It has been found to be a key area in each of the brain circuits tied to generalized anxiety disorder, panic disorder, and posttraumatic stress disorder. Apparently, it also plays a role in depression (Treadway & Pizzagalli, 2014). PET and fMRI scans indicate that there is 50 percent more activity and blood flow in the amygdala.
among depressed persons than among nondepressed persons (Goldstein et al., 2011; Drevets, 2001). In fact, one study suggests that as a patient’s depression increases in severity, the activity in his or her amygdala increases proportionately (Abercrombie et al., 1998). Moreover, among nondepressed research participants, activity in the amygdala increases as they are looking at pictures of sad faces; and among depressed participants, amygdala activity increases when they recall sad moments in their lives (Liotti et al., 2002; Drevets, 2000).

The fourth part of the depression brain circuit, Brodmann Area 25, has received enormous attention over the past 15 years (Eggers, 2014; Schiferle, 2013; Mayberg et al., 2005, 2000, 1997). This area tends to be smaller in depressed people than in nondepressed people. Moreover, like the amygdala, it is significantly more active among depressed people than among nondepressed people. In fact, brain scans reveal that when a person’s depression subsides, the activity in his or her Area 25 decreases significantly. Because activation of Area 25 comes and goes with episodes of depression, some theorists believe that it may in fact be a “depression switch,” a kind of junction box whose malfunction might be necessary and sufficient for depression to occur.

### The Immune System

As you will see in Chapter 10, the immune system is the body’s network of activities and body cells that fight off bacteria, viruses, and other foreign invaders. When people are under intense stress for a while, their immune systems may become dysregulated, leading to lower functioning of important white blood cells called lymphocytes and to increased production of C-reactive protein (CRP), a protein that spreads throughout the body and causes inflammation and various illnesses (see pages 339, 341). There is a growing belief among some researchers that immune system dysregulation of this kind helps produce depression.

The support for an immune system explanation of depression is circumstantial but compelling (Anderson et al., 2014; Sperner-Unterweger, Kohl, & Fuchs, 2014; Yoon et al., 2012). First, stress often triggers depression, just as it leads to poor immune system functioning. Second, researchers have found that people with depression display lower lymphocyte activity and increased CRP production and body inflammation. Third, depressed people have a higher incidence than other people of migraines, irritable bowel syndrome, chronic fatigue syndrome, rheumatoid arthritis, and other illnesses known to be caused by CRP production and body inflammation. And, finally, antidepressant drugs, medications that help reduce depression for many people, help combat CRP-related inflammation throughout the body.

It is not yet clear how to interpret the relationship between depression and immune system dysregulation. It could be that such dysregulation and chronic inflammation cause depression, just as they help produce other illnesses. Or perhaps depression is itself a stressor that leads to immune system problems. A number of researchers are now conducting studies that should help clarify this relationship in the coming years.

### Psychological Views

The psychological models that have been most widely applied to unipolar depression are the psychodynamic, behavioral, and cognitive models. The psychodynamic explanation has not been strongly supported by research, and the behavioral view has received only modest support. In contrast, cognitive explanations have received considerable research support and have gained a large following.

#### The Psychodynamic View

Sigmund Freud (1917) and his student Karl Abraham (1916, 1911) developed the first psychodynamic explanation of depression. They began by noting the similarity between clinical depression and grief in
people who lose loved ones: constant weeping, loss of appetite, difficulty sleeping, loss of pleasure in life, and general withdrawal.

According to Freud and Abraham, a series of unconscious processes is set in motion when a loved one dies. Unable to accept the loss, mourners at first regress to the oral stage of development, the period of total dependency when infants cannot distinguish themselves from their parents. By regressing to this stage, the mourners merge their own identity with that of the person they have lost, and so symbolically regain the lost person. In this process, called introjection, they direct all their feelings for the loved one, including sadness and anger, toward themselves.

For most mourners, introjection is temporary. For some, however, grief worsens over time. They feel empty, they continue to avoid social relationships, and their sense of loss increases. They become depressed. Freud and Abraham believed that two kinds of people are particularly likely to become clinically depressed in the face of loss: those whose parents failed to nurture them and meet their needs during the oral stage and those whose parents gratified those needs excessively. Infants whose needs are inadequately met remain overly dependent on others throughout their lives, feel unworthy of love, and have low self-esteem. Those whose needs are excessively gratified find the oral stage so pleasant that they resist moving on to subsequent stages. Either way, they may devote their lives to others, desperately searching for love and approval. They are likely to feel a stronger sense of loss when a loved one dies (Busch et al., 2004; Bemporad, 1992).

Of course, many people become depressed without losing a loved one. To explain why, Freud proposed the concept of symbolic, or imagined, loss, in which a person equates other kinds of events with the loss of a loved one. A college student may, for example, experience failure in a calculus course as the loss of her parents, believing that they love her only when she excels academically.

Although many psychodynamic theorists have parted company with Freud and Abraham's theory of depression, it continues to influence current psychodynamic thinking (Desmet, 2013; Zuckerman, 2011). For example, object relations theorists (the psychodynamic theorists who emphasize relationships) propose that depression results when people's relationships leave them feeling unsafe and insecure (Schattner & Sharar, 2011; Allen et al., 2004; Blatt, 2004). People whose parents pushed them toward either excessive dependence or excessive self-reliance are more likely to become depressed when they later lose important relationships.

The following description by the therapist of a depressed middle-aged woman illustrates the psychodynamic concepts of dependence, loss of a loved one, symbolic loss, and introjection:

Marie Carls had always felt very attached to her mother... She always tried to placate her volcanic [emotions], to please her in every possible way... After marriage [to Julius], she continued her pattern of submission and compliance. Before her marriage she had difficulty in complying with a volcanic mother, and after her marriage she almost automatically assumed a submissive role...

[When she was thirty years old... Marie] and her husband invited Ignatius, who was single, to come and live with them. Ignatius and [Marie] soon discovered that they had an attraction for each other. They both tried to fight that feeling; but when

Why do you think so many comedians and other entertainers report that they have grappled with depression earlier in their lives?

Early loss

The young daughter of a police officer killed during the September 11, 2001, terrorist attacks stands onstage holding her father’s hand while the names of attack victims are read during ceremonies at Ground Zero marking the fifth anniversary of the event. Research has found that people who lose their parents as children have an increased likelihood of experiencing depression as adults.

continued on the next page
Julius had to go to another city for a few days, the so-called infatuation became much more than that. There were a few physical contacts. . . . There was an intense spiritual affinity. . . . A few months later everybody had to leave the city. . . . Nothing was done to maintain contact. Two years later . . . Marie heard that Ignatius had married. She felt terribly alone and despondent. . . .

Her suffering had become more acute as she [came to believe] that old age was approaching and she had lost all her chances. Ignatius remained as the memory of lost opportunities. . . . Her life of compliance and obedience had not permitted her to reach her goal. . . . When she became aware of these ideas, she felt even more depressed. . . . She felt that everything she had built in her life was false or based on a false premise.

(Arieti & Bemporad, 1978, pp. 275–284)

Studies have offered general support for the psychodynamic idea that depression may be triggered by a major loss. In a famous study of 123 infants who were placed in a nursery after being separated from their mothers, René Spitz (1946, 1945) found that 19 of the infants became very weepy and sad upon separation and withdrew from their surroundings—a pattern called anaclitic depression. Studies of infant monkeys who are separated from their mothers have noted a similar pattern of apparent depression (Harlow & Zimmermann, 1996; Harlow & Harlow, 1965).

Other research, involving both human participants and animal subjects, suggests that losses suffered early in life may set the stage for later depression (Gutman & Nemeroff, 2011; Pryce et al., 2005). When, for example, a depression scale was administered to 1,250 medical patients during visits to their family physicians, the patients whose fathers had died during their childhood scored higher on depression (Barnes & Prosen, 1985).

Related research supports the psychodynamic idea that people whose childhood needs were improperly met are particularly likely to become depressed after experiencing loss (Gonzalez et al., 2012; Goodman, 2002). In some studies, depressed patients have filled out a scale called the Parental Bonding Instrument, which indicates how much care and protection people feel they received as children. Many have identified their parents’ child-rearing style as “affectionless control,” consisting of a mixture of low care and high protection (Martin et al., 2004; Parker et al., 1995).

These studies offer some support for the psychodynamic view of unipolar depression, but this support has key limitations. First, although the findings indicate that losses and inadequate parenting sometimes relate to depression, they do not establish that such factors are typically responsible for the disorder. In the studies of young children and young monkeys, for example, only some of the research participants who were separated from their mothers showed depressive reactions. In fact, it is estimated that less than 10 percent of all people who have major losses in life actually become depressed (Bonanno, 2004; Paykel & Cooper, 1992). Second, many findings are inconsistent. Though some studies find evidence of a relationship

Across the species
Researcher Harry Harlow and his colleagues found that infant monkeys reacted with apparent despair to separation from their mothers. Even monkeys raised with surrogate mothers—wire cylinders wrapped with foam rubber and covered with terry cloth—formed an attachment to them and mourned their absence.

anaclitic depression A pattern of depressed behavior found among very young children that is caused by separation from one’s mother.
between childhood loss and later depression, others do not. Finally, certain features of the psychodynamic explanation are nearly impossible to test. Because symbolic loss is said to operate at an unconscious level, for example, it is difficult for researchers to determine if and when it is occurring.

**The Behavioral View** Behaviorists believe that unipolar depression results from significant changes in the number of rewards and punishments people receive in their lives (Dygdon & Dienes, 2013; Martell et al., 2010). Clinical researcher Peter Lewinsohn was one of the first clinical theorists to develop a behavioral explanation (Lewinsohn et al., 1990, 1984). He suggested that the positive rewards in life dwindle for some people, leading them to perform fewer and fewer constructive behaviors. The rewards of campus life, for example, disappear when a young woman graduates from college and takes a job; and an aging baseball player loses the rewards of high salary and adulation when his skills deteriorate. Although many people manage to fill their lives with other forms of gratification, some become particularly disheartened. The positive features of their lives decrease even more, and the decline in rewards leads them to perform still fewer constructive behaviors. In this manner, they spiral toward depression.

In a number of studies, behaviorists have found that the number of rewards people receive in life is indeed related to the presence or absence of depression. Not only do depressed participants typically report fewer positive rewards than nondepressed participants, but when their rewards begin to increase, their mood improved as well (Bylsma et al., 2011; Lewinsohn, Youngren, & Grosscup, 1979). Similarly, other investigations have found a strong relationship between positive life events and feelings of life satisfaction and happiness (Carvalho & Hopko, 2011; Martell et al., 2010).

Lewinsohn and other behaviorists have further proposed that social rewards are particularly important in the downward spiral of depression (Martell et al., 2010; Farmer & Chapman, 2008). This claim has been supported by research showing that depressed persons receive fewer social rewards than nondepressed persons and that as their mood improves, their social rewards increase (see MindTech on the next page). Although depressed people are sometimes the victims of social circumstances, it may also be that their dark mood and flat behaviors help produce a decline in social rewards (Joiner, 2002; Coyne, 2001).

Behaviorists have done an admirable job of compiling data to support this theory but their research, too, has limitations. It has relied heavily on the self-reports
MindTech

Texting: A Relationship Buster?

Texting has now become the leading way that most people communicate with others (Cocotas, 2013). The average 18- to 24-year-old, for example, sends and receives a total of 4000 texts each month. In theory, texting enables us to deliver brief messages to others without disturbing them. But as we all know, in practice many people text almost constantly throughout the day (Whitbourne, 2013). In fact, surveys suggest that people often fail to fully attend to their current activities in order to juggle their text conversations. Some clinicians worry that excessive texting may damage our relationships—relationships with the people we are texting and relationships with those we are ignoring while texting. Preliminary studies appear to give credence to such concerns.

Based on her studies, MIT professor Sherry Turkle (2013, 2012) has concluded that communicating primarily via text does indeed affect relationships negatively. Many of her participants reported, “I’d rather text than talk.” Turkle concludes from her research that people often use texting as a crutch to avoid direct communication and possible confrontations. Moreover, her participants say that they prefer texting over face-to-face conversations because in live conversations “you can’t control what you are going to say, and you don’t know how long it’s going to take or where it could go.” However, concludes Turkle, “People who feel they are too busy to have conversations in person are not making the important emotional connections they otherwise would.”

In related work, researcher Karla Klein Murdock (2013) has investigated the social, emotional, mental, and physical tolls of extreme texting. In one study, Murdock interviewed 83 college freshmen about their daily texting habits, along with their levels of social and personal stress, sleep patterns, and happiness (Murdock, 2013). Murdock found that hastily written texts (which is to say, most texts) often lend themselves to misunderstandings between senders and receivers—misunderstandings that can quickly spin out of control. She also noted that many study participants felt the need to constantly keep up with ongoing text conversations, interrupting their in-person conversations—thus inviting damage to those relationships as well.

Small wonder that the research participants who averaged the most daily texts were more likely than other participants to report more stress, unhappiness, anxiety, and sleeping problems. Murdock believes that in many such cases, the negative effects of texting on the participants’ personal relationships are leading to broader feelings of stress and unhappiness.

None of this suggests that texting per se is a detriment to social or personal happiness. Rather, it seems to be the exclusive and excessive use of it that is the problem. It just may be that important discussions are better served by in-person, or at least phone, conversations.

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*cognitive triad* The three forms of negative thinking that Aaron Beck theorizes lead people to feel depressed. The triad consists of a negative view of one’s experiences, oneself, and the future.
of depressed people, and as you saw in Chapter 4, measures of this kind can be biased and inaccurate; a report by a depressed person may be influenced heavily by a gloomy mood and negative outlook. Moreover, the behavioral studies have been largely correlational and do not establish that decreases in rewarding events are the initial cause of depression. As you have just read, for example, a depressed mood in itself may lead to negative behaviors and decreases in activities and hence to fewer rewards.

**Cognitive Views** Cognitive theorists believe that people with unipolar depression persistently view events in negative ways and that such perceptions lead to their disorder. The two most influential cognitive explanations are the *theory of negative thinking* and the *theory of learned helplessness*.

**NEGATIVE THINKING** Aaron Beck believes that negative thinking, rather than underlying conflicts or a reduction in positive rewards, lies at the heart of depression (Beck & Weishaar, 2014; Beck, 2002, 1991, 1967). Other cognitive theorists—Albert Ellis, for one—also point to maladaptive thinking as a key to depression, but Beck’s theory is the one most often associated with the disorder. According to Beck, *maladaptive attitudes, a cognitive triad, errors in thinking, and automatic thoughts* combine to produce unipolar depression.

Beck believes that some people develop *maladaptive attitudes* as children, such as “My general worth is tied to every task I perform” or “If I fail, others will feel repelled by me.” The attitudes result from their own experiences, their family relationships, and the judgments of the people around them (see Figure 7–2 on the next page). Many failures are inevitable in a full, active life, so such attitudes are inaccurate and set the stage for all kinds of negative thoughts and reactions. Beck suggests that later in these people’s lives, upsetting situations may trigger an extended round of negative thinking. That thinking typically takes three forms, which he calls the *cognitive triad*: the individuals repeatedly interpret (1) their experiences, (2) themselves, and (3) their futures in negative ways that lead them to feel depressed. The cognitive triad is at work in the thinking of this depressed person:

> I can’t bear it. I can’t stand the humiliating fact that I’m the only woman in the world who can’t take care of her family, take her place as a real wife and mother, and be respected in her community. When I speak to my young son Billy, I know I can’t let him down, but I feel so ill-equipped to take care of him; that’s what frightens me. I don’t know what to do or where to turn; the whole thing is too overwhelming. . . . I must be a laughing stock. It’s more than I can do to go out and meet people and have the fact pointed up to me so clearly.

*(Fieve, 1975)*

According to Beck, depressed people also make errors in their thinking. In one common error of logic, they draw arbitrary inferences—negative conclusions based on little evidence. A man walking through the park, for example, passes a woman who is looking at nearby flowers and concludes, “She’s avoiding looking at me.” Similarly, depressed people often minimize the significance of positive experiences or magnify that of negative ones. A college student receives an A on a difficult English exam, for example, but concludes that the grade reflects the professor’s generosity rather than her own ability (minimization). Later in the week the same
student must miss an English class and is convinced that she will be unable to keep up the rest of the semester (magnification).

Finally, depressed people have automatic thoughts, a steady train of unpleasant thoughts that keep suggesting to them that they are inadequate and that their situation is hopeless. Beck labels these thoughts “automatic” because they seem to just happen, as if by reflex. In the course of only a few hours, depressed people may be visited by hundreds of such thoughts: “I’m worthless. . . . I’ll never amount to anything . . . I let everyone down. . . . Everyone hates me. . . . My responsibilities are overwhelming. . . . I’ve failed as a parent . . . I’m stupid. . . . Everything is difficult for me. . . . Things will never change.” One therapist said of a depressed client, “By the end of the day, she is worn out, she has lived a thousand painful accidents, participated in a thousand deaths, mourned a thousand mistakes” (Mendels, 1970).

Many studies have produced evidence in support of Beck’s explanation (Pössel & Black, 2014; Rehm, 2010). Several of them confirm that depressed people hold maladaptive attitudes and that the more of these maladaptive attitudes they hold, the more depressed they tend to be (Thomas & Altareb, 2012; Evans et al., 2005). Still other research has found the cognitive triad at work in depressed people (Lai et al., 2014; Benas & Gibb, 2011). In various studies, depressed people seem to recall unpleasant experiences more readily than positive ones, rate their performances on laboratory tasks lower than nondepressed people do, and select pessimistic statements in storytelling tests (for example, “I expect my plans will fail”).

Beck’s claims about errors in logic have also received research support (Alcalar et al., 2012). In one study, female participants—some depressed, some not—were asked to read and interpret paragraphs about women in difficult situations. Depressed participants made more errors in logic (such as arbitrary inference) in their interpretations than nondepressed women did (Hammen & Krantz, 1976).

Finally, research has supported Beck’s claim that automatic thoughts are tied to depression (Alcalar et al., 2012). In several classic studies, nondepressed participants who are tricked into reading negative automatic-thought-like statements about themselves become increasingly depressed (Bates, Thompson, & Flanagan, 1999; Strickland, Hale, & Anderson, 1975). In a related line of research, it has been found that people who generally make ruminative responses during their depressed moods—that is, repeatedly dwell mentally on their mood without acting to change it—feel
dejection longer and are more likely to develop clinical depression later in life than people who avoid such ruminations (Johnson et al., 2014; Zetsche et al., 2012; McLaughlin & Nolen-Hoeksema, 2011).

This body of research shows that negative thinking is indeed linked to depression, but it fails to show that such patterns of thought are the cause and core of unipolar depression. It could be that a central mood problem leads to thinking difficulties that then take a further toll on mood, behavior, and physiology.

**LEARNED HELPLESSNESS** Feelings of helplessness fill this account of a young woman’s depression:

Mary was 25 years old and had just begun her senior year in college. . . . Asked to recount how her life had been going recently, Mary began to weep. Sobbing, she said that for the last year or so she felt she was losing control of her life and that recent stresses (starting school again, friction with her boyfriend) had left her feeling worthless and frightened. Because of a gradual deterioration in her vision, she was now forced to wear glasses all day. “The glasses make me look terrible,” she said, and “I don’t look people in the eye much any more.” Also, to her dismay, Mary had gained 20 pounds in the past year. She viewed herself as overweight and unattractive. At times she was convinced that with enough money to buy contact lenses and enough time to exercise she could cast off her depression; at other times she believed nothing would help. . . . Mary saw her life deteriorating in other spheres, as well. She felt overwhelmed by schoolwork and, for the first time in her life, was on academic probation. . . . In addition to her dissatisfaction with her appearance and her fears about her academic future, Mary complained of a lack of friends. Her social network consisted solely of her boyfriend, with whom she was living. Although there were times she experienced this relationship as almost unbearably frustrating, she felt helpless to change it and was pessimistic about its permanence.

(Spitzer et al., 1983, pp. 122–123)

Mary feels that she is “losing control of her life.” According to psychologist Martin Seligman (1975), such feelings of helplessness are at the center of her depression. Since the mid-1960s Seligman has been developing the **learned helplessness** theory of depression. It holds that people become depressed when they
think (1) that they no longer have control over the reinforcements (the rewards and punishments) in their lives, and (2) that they themselves are responsible for this helpless state.

Seligman’s theory first began to take shape when he was working with laboratory dogs. In one procedure, he strapped dogs into an apparatus called a hammock, in which they received shocks periodically no matter what they did. The next day each dog was placed in a shuttle box, a box divided in half by a barrier over which the animal could jump to reach the other side (see Figure 7-3). Seligman applied shocks to the dogs in the box, expecting that they, like other dogs in this situation, would soon learn to escape by jumping over the barrier. However, most of these dogs failed to learn anything in the shuttle box. After a flurry of activity, they simply “lay down and quietly whined” and accepted the shock.

Seligman decided that while receiving inescapable shocks in the hammock the day before, the dogs had learned that they had no control over unpleasant events (shocks) in their lives. That is, they had learned that they were helpless to do anything to change negative situations. Thus, when later they were placed in a new situation (the shuttle box) where they could in fact control their fate, they continued to believe that they were generally helpless. Seligman noted that the effects of learned helplessness greatly resemble the symptoms of human depression, and he proposed that people in fact become depressed after developing a general belief that they have no control over reinforcements in their lives.

In numerous human and animal studies, participants who undergo helplessness training have displayed reactions similar to depressive symptoms (Dygdon & Dienes, 2013; Vollmayr & Gass, 2013). When, for example, human participants are exposed to uncontrollable negative events, they later score higher than other individuals on a depressive mood scale (Miller & Seligman, 1975). Similarly, helplessness-trained animal subjects lose interest in sexual and social activities—a common symptom of human depression (Lindner, 1968). Finally, uncontrollable negative events result in lower norepinephrine and serotonin activity in rats (Wu et al., 1999). This, of course, is similar to the neurotransmitter activity found in the brains of people with unipolar depression.

The learned helplessness explanation of depression has been revised somewhat over the past two decades. According to a new version of the theory, the attribution-helplessness theory, when people view events as beyond their control, they ask themselves why this is so (Rotenberg et al., 2012; Abramson et al., 2002, 1989, 1978) (see Table 7-4). If they attribute their present lack of control to some internal cause that is both global and stable ("I am inadequate at everything and I always will

### Table 7-4

<table>
<thead>
<tr>
<th>Internal and External Attributions</th>
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<td>Event: “I failed my psych test today.”</td>
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<table>
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<tr>
<th>INTERNAL</th>
<th>EXTERNAL</th>
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<tr>
<td>Stable</td>
<td>Unstable</td>
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<tr>
<td>Global</td>
<td>“I have a problem with test anxiety.”</td>
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<tr>
<td>Specific</td>
<td>“I just have no grasp of psychology.”</td>
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be”), they may well feel helpless to prevent future negative outcomes and they may experience depression. If they make other kinds of attributions, they are unlikely to have this reaction.

Consider a college student whose girlfriend breaks up with him. If he attributes this loss of control to an internal cause that is both global and stable—“It’s my fault [internal], I ruin everything I touch [global], and I always will [stable]”—he then has reason to expect similar losses of control in the future and may generally experience a sense of helplessness. According to the learned helplessness view, he is a prime candidate for depression. If the student had instead attributed the breakup to causes that were more specific (“The way I’ve behaved the past couple of weeks blew this relationship”), unstable (“I don’t know what got into me—I don’t usually act like that”), or external (“She never did know what she wanted”), he might not expect to lose control again and would probably not experience helplessness and depression.

Hundreds of studies have supported the relationship between styles of attribution, helplessness, and depression (Rotenberg et al., 2012; Roberts et al., 2010). In one, depressed persons were asked to fill out an Attributional Style Questionnaire both before and after successful therapy. Before therapy, their depression was accompanied by the internal/global/stable pattern of attribution. At the end of therapy and again one year later, their depression had improved and their interpretive styles were less likely to be limited to internal, global, and stable attributions (Seligman et al., 1988).

Some theorists have refined the helplessness model yet again in recent years. They suggest that attributions are likely to cause depression only when they further produce a sense of hopelessness in a person (Wain et al., 2011; Abramson et al., 2002, 1989). By taking this factor into consideration, clinicians are often able to predict depression with still greater precision (Wang et al., 2013).

Although the learned helplessness theory of unipolar depression has been very influential, it too has imperfections. First, laboratory helplessness does not parallel depression in every respect. Uncontrollable shocks in the laboratory, for example, almost always produce anxiety along with the helplessness effects (Seligman, 1975); in contrast, human depression is often, but not always, accompanied by anxiety (Shorter, 2013). Second, much of the learned helplessness research relies on animal subjects. It is impossible to know whether the animals’ symptoms do in fact reflect the clinical depression found in humans. Third, the attributional feature of the theory raises difficult questions. What about the dogs and rats who learn helplessness? Can animals make attributions, even implicitly?

Sociocultural Views
Sociocultural theorists propose that unipolar depression is strongly influenced by the social context that surrounds people. Their belief is supported by the finding, discussed earlier, that depression is often triggered by outside stressors. Once again, there are two kinds of sociocultural views—the family-social perspective, which looks at the role played by interpersonal factors in the development of depression, and the multicultural perspective, which ties depression to factors such as gender, race, and economic status.

The Family-Social Perspective Earlier you read that some behaviorists believe that a decline in social rewards is particularly important in the development of depression. Although presented as part of their behavioral explanation, this view is consistent with the family-social perspective.

The connection between declining social rewards and depression is a two-way street (Nardi et al., 2013; Joiner, 2002). On the one hand, researchers have found that depressed people often display weak social skills and communicate poorly.
They typically speak more slowly and quietly and in more of a monotone than nondepressed people, pause longer between words and sentences, and take longer to respond to others. They also seek repeated reassurances from others. Such social deficits make other people uncomfortable and may cause them to avoid the depressed individuals. As a result, the social contacts and rewards of depressed people decrease, and, as they participate in fewer and fewer social interactions, their social skills deteriorate still further. Not surprisingly, over time depressed people, particularly those who have had repeated episodes of depression, seem to lower their expectations of what they can get from social relationships and scale back their social ambitions (Coyne & Calarco, 1995).

Consistent with these findings, depression has been tied repeatedly to the unavailability of social support such as that found in a happy marriage (Ito & Sagara, 2014; Kendler et al., 2005). People who are separated or divorced display at least three times the depression rate of married or widowed people and double the rate of those who have never been married (Schultz, 2007; Weissman et al., 1991). In some cases, the spouse’s depression may contribute to marital discord, a separation, or divorce, but often the interpersonal conflicts and low social support found in troubled relationships seem to lead to depression (Najman et al., 2014; Whisman, 2001).

Generally, there is a high correlation between level of marital conflict and degree of sadness: .37 for men and .42 for women (Whisman & Schonbrun, 2010; Whisman, 2001). Among those who are clinically depressed, the correlation rises to .66. In one study, researchers first assessed how satisfying the marital relationships of research participants were. They then discovered that over the next 12 months, participants who were in an unsatisfying relationship were three times more likely to have a major depressive episode than those in a satisfying relationship (Whisman & Bruce, 1999). Such findings led the experimenters to estimate that one-third of cases of major depression could be prevented if marital stress were eliminated.

Finally, it appears that people whose lives are isolated and without intimacy are particularly likely to become depressed at times of stress (Hölzel et al., 2011; Nezlek et al., 2000). Some highly publicized studies conducted in England several decades ago showed that women who had three or more young children, lacked a close confidante, and had no outside employment were more likely than other women...
Depressive and Bipolar Disorders

The Multicultural Perspective Two kinds of relationships have captured the interest of multicultural theorists: (1) links between gender and depression, and (2) ties between cultural and ethnic background and depression. In the case of gender, a strong relationship has been found, but a clear explanation for that relationship has yet to emerge. The clinical field is still sorting out whether and what ties exist between cultural factors and depression.

Gender and Depression As you have read, there is a strong link between gender and depression. Women in places as disparate as France, Sweden, Lebanon, New Zealand, and the United States are at least twice as likely as men to receive a diagnosis of unipolar depression (Schuch et al., 2014; McSweeney, 2004). Women also appear to be younger when depression strikes, to have more frequent and longer-lasting bouts, and to respond less successfully to treatment. Why the huge difference between the sexes? A variety of theories have been offered.

The artifact theory holds that women and men are equally prone to depression but that clinicians often fail to detect depression in men (Emmons, 2010; Brommelhoff et al., 2004). Perhaps men find it less socially acceptable to admit feeling depressed or to seek treatment. Perhaps depressed women display more emotional symptoms, such as sadness and crying, which are easily diagnosed, while depressed men mask their depression behind traditionally “masculine” symptoms such as anger. Although a popular explanation, this view has failed to receive consistent research support. It turns out that women are actually no more willing or able than men to identify their depressive symptoms and to seek treatment (McSweeney, 2004; Nolen-Hoeksema, 1990).

The hormone explanation holds that hormone changes trigger depression in many women (Kurita et al., 2013; Parker & Brotchie, 2004). A woman’s biological life from her early teens to middle age is marked by frequent changes in hormone levels. Gender differences in rates of depression also span these same years. Research suggests, however, that hormone changes alone are not responsible for the high levels of depression in women (Whiffen & Demidenko, 2006; Kessler et al., 2003). Important social and life events that occur at puberty, pregnancy, and menopause could likewise have an effect. Hormone explanations have also been criticized as sexist, since they imply that a woman’s normal biology is flawed (see PsychWatch on the next page).

The life stress theory suggests that women in our society are subject to more stress than men (Astbury, 2010; Keyes & Goodman, 2006). On average they face more poverty, more menial jobs, less adequate housing, and more discrimination than men—all factors that have been linked to depression. And in many homes, women bear a disproportionate share of responsibility for child care and housework.

The body dissatisfaction explanation states that females in Western society are taught, almost from birth, to seek a low body weight and slender body shape—goals that are unreasonable, unhealthy, and often unattainable. As you will observe in Chapter 11, the cultural standard for males is much more lenient. As girls approach adolescence, peer pressure may result in them becoming more and more dissatisfied with their weight and body, increasing the likelihood of depression. Consistent with this theory, gender differences in depression do indeed first appear during adolescence (Naninck et al., 2011; Nolen-Hoeksema & Girgus, 1995), and people with eating disorders often have high levels of depression (Calugi et al., 2014). However, it is not clear that eating and weight concerns actually cause depression; they may instead be the result of depression.
The lack-of-control theory draws on the learned helplessness research and proposes that women may be more prone to depression because they feel less control than men over their lives. Some studies have, in fact, suggested that women are more prone than men to develop learned helplessness in the laboratory (Le Unes, Nation, & Turley, 1980). In addition, it has been found that victimization of any kind, from burglary to rape, often produces a general sense of helplessness and increases the symptoms of depression. Women in our society are more likely than men to be victims, particularly of sexual assault and child abuse (Astbury, 2010; Nolen-Hoeksema, 2002).

A final explanation for the gender differences found in depression is the rumination theory. As you read earlier, rumination is the tendency to keep focusing on one’s feelings when depressed and to consider repeatedly the causes and consequences of that depression (“Why am I so down? . . . I won’t be able to finish my work if I keep going like this. . . .”). Research shows that people who ruminate whenever they feel sad are more likely to become depressed and to stay depressed longer. It turns out that women are more likely than men to ruminate when their mood darkens, perhaps making them more vulnerable to the onset of clinical depression (Johnson & Whisman, 2013; Nolen-Hoeksema, 2002, 2000).

Each of these explanations for the gender difference in unipolar depression offers food for thought. Each has gathered just enough supporting evidence to make it interesting and just enough evidence to the contrary to raise questions about its usefulness. Thus, at present, the gender difference in depression remains one of the most talked-about but least understood phenomena in the clinical field.

PsychWatch

Premenstrual Dysphoric Disorder: Déjà Vu All Over Again

Back in the early 1990s, one of the biggest controversies in the development of DSM-IV centered on the category premenstrual dysphoric disorder (PMDD). The DSM-IV work group recommended that PMDD be formally listed as a new kind of depressive disorder. The category was to be applied when a woman was regularly impaired by at least 5 of 11 symptoms during the week before menstruation: depressed or hopeless feelings; tense or anxious feelings; marked mood changes; frequent irritability or anger and increased interpersonal conflicts; decreased interest in her usual activities; poor concentration; lack of energy; changes in appetite; insomnia or sleepiness; a sense of being overwhelmed or out of control; and physical symptoms such as swollen breasts, headaches, muscle pain, a “bloated” sensation, or weight gain.

This recommendation set off an uproar. Many clinicians (including some dissenting members of the work group), several national organizations, interest groups, and the media warned that this diagnostic category would “pathologize” severe cases of premenstrual syndrome, or PMS, the premenstrual discomforts that are common and normal, and might cause women’s behavior in general to be attributed largely to “raging hormones” (a stereotype that society was finally rejecting). They argued that data were lacking to include the new category (Chase, 1993; DeAngelis, 1993).

The solution? A compromise. PMDD was not listed as a formal category in DSM-IV, but the pattern was listed in the DSM-IV appendix, with the suggestion that it be studied more thoroughly. Critics hoped that PMDD would die a quiet death there. However, two decades later the category has gained new life. When, in 2011, the DSM-5 task force published a list of changes being considered for the new edition of the DSM, premenstrual dysphoric disorder was included as one of the depressive disorders. The reaction? As you might expect, another uproar among many clinicians and interest groups. This time, however, the proponents prevailed, citing several studies conducted over the past 20 years. PMDD is now an official category in DSM-5 (APA, 2013).
CULTURAL BACKGROUND AND DEPRESSION Depression is a worldwide phenomenon, and certain symptoms of this disorder seem to be constant across all countries. A landmark study of four countries—Canada, Switzerland, Iran, and Japan—found that the great majority of depressed people in these very different countries reported symptoms of sadness, joylessness, anxiety, tension, lack of energy, loss of interest, loss of ability to concentrate, ideas of insufficiency, and thoughts of suicide (Matsumoto & Juang, 2008). Beyond such core symptoms, however, research suggests that the precise picture of depression varies from country to country (Kok et al., 2012; Kleinman, 2004). Depressed people in non-Western countries—China and Nigeria, for example—are more likely to be troubled by physical symptoms such as fatigue, weakness, sleep disturbances, and weight loss. Depression in those countries is less often marked by cognitive symptoms such as self-blame, low self-esteem, and guilt. As countries become more Westernized, depression seems to take on the more cognitive character it has in the West (Matsumoto & Juang, 2008; Okello & Ekblad, 2006).

Within the United States, researchers have found few differences in the symptoms of depression among members of different ethnic or racial groups. Nor have they found significant differences in the overall rates of depression between such minority groups. On the other hand, recent research has revealed that there are often striking differences between ethnic/racial groups in the chronicity of depression. Chronicity refers to how likely it is that a person will have recurrent episodes of a disorder. Hispanic Americans and African Americans are 50 percent more likely than white Americans to have recurrent episodes of depression (González et al., 2010).

How might this difference in chronicity be explained? Data on the treatment of depression may provide a clue. As you will read in the next chapter, 54 percent of depressed white Americans receive treatment for their disorders (medication and/or psychotherapy), compared with 34 percent of depressed Hispanic Americans and 40 percent of depressed African Americans (González et al., 2010). It may be that minority groups in the United States are more vulnerable to repeated experiences of depression partly because many of their members have more limited treatment opportunities when they are depressed.

A close look at research findings also reveals that although the overall rates of depression are similar among minority groups, specific ethnic populations living under unusually oppressive circumstances sometimes do have strikingly high rates of depression (Kim et al., 2014; Matsumoto & Juang, 2008; Ayalon & Young, 2003). A study of one American Indian community in the United States, for example, showed that the lifetime risk of developing depression was 37 percent among women, 19 percent among men, and 28 percent overall, much higher than the risk in the general U.S. population (Kinzie et al., 1992). High prevalence rates of this kind may be linked to the terrible social and economic pressures faced by the people who live on American Indian reservations. Similarly, in one survey of Hispanic and African Americans residing in public housing, almost half of the respondents reported that they were suffering from depression (Bazargan et al., 2005). Within these minority populations, the likelihood of being depressed rose along with the individual’s degree of poverty, family size, and number of health problems.

Finally, research has revealed that depression is distributed unevenly within some minority groups. This is not totally surprising, given that each minority group itself is comprised of individuals of varied backgrounds and cultural values. For example, depression is more common among Hispanic and African Americans born in the United States.
than among Hispanic and African American immigrants (González et al., 2010; Matsumoto & Juang, 2008). Moreover, within the Hispanic American population, Puerto Ricans have a higher rate of depression than do Mexican Americans or Cuban Americans, whereas among African Americans, those whose families originally came to the United States from Africa and those whose families came by way of the Caribbean Islands have similar rates of depression (González et al., 2010; Miranda et al., 2005).

**Bipolar Disorders**

People with a *bipolar disorder* experience both the lows of depression and the highs of mania. Many describe their life as an emotional roller coaster, as they shift back and forth between extreme moods. A number of sufferers eventually become suicidal. Their roller coaster ride also has a dramatic impact on relatives and friends (Barron et al., 2014; Lee et al., 2011; Lowe & Cohen, 2010).

**What Are the Symptoms of Mania?**

Unlike people sunk in the gloom of depression, those in a state of mania typically experience dramatic and inappropriate rises in mood. The symptoms of mania span the same areas of functioning—*emotional, motivational, behavioral, cognitive,* and *physical*—as those of depression, but mania affects those areas in an opposite way.

A person in the throes of mania has active, powerful emotions in search of an outlet. The mood of euphoric joy and well-being is out of all proportion to the actual happenings in the person’s life. One person with mania explained, “I feel no sense of restriction or censorship whatsoever. I am afraid of nothing and no one” (Fieve, 1975, p. 68). Not every person with mania is a picture of happiness, however. Some instead become very irritable and angry, especially when others get in the way of their exaggerated ambitions.

In the motivational realm, people with mania seem to want constant excitement, involvement, and companionship. They enthusiastically seek out new friends and old, new interests and old, and have little awareness that their social style is overwhelming, domineering, and excessive.

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**Powerful plot device**

In *Homeland*, one of television’s most popular series, actress Claire Danes plays Carrie Mathison, a CIA operative who is obsessed with Marine-turned-terrorist Nicholas Brody (played by actor Damian Lewis). One of the show’s key features is Mathison’s bipolar disorder, which both heightens and hinders her effectiveness in the pursuit of Brody and terrorists.
The behavior of people with mania is usually very active. They move quickly, as though there were not enough time to do everything they want to do. They may talk rapidly and loudly, their conversations filled with jokes and efforts to be clever or, conversely, with complaints and verbal outbursts. Flamboyance is not uncommon: dressing in flashy clothes, giving large sums of money to strangers, or even getting involved in dangerous activities.

In the cognitive realm, people with mania usually show poor judgment and planning, as if they feel too good or move too fast to consider possible pitfalls. Filled with optimism, they rarely listen when others try to slow them down, interrupt their buying sprees, or prevent them from investing money unwisely. They may also hold an inflated opinion of themselves, and sometimes their self-esteem approaches grandiosity. During severe episodes of mania, some have trouble remaining coherent or in touch with reality.

Finally, in the physical realm, people with mania feel remarkably energetic. They typically get little sleep yet feel and act wide awake (Armitage & Arnedt, 2011). Even if they miss a night or two of sleep, their energy level may remain high.

### Diagnosing Bipolar Disorders

People are considered to be in a full *manic episode* when for at least 1 week they display an abnormally high or irritable mood, increased activity or energy, and at least three other symptoms of mania (see Table 7-5). The episode may even include psychotic features such as delusions or hallucinations. When the symptoms of mania are less severe (causing little impairment), the person is said to be having a *hypomanic episode* (APA, 2013).

#### Dx Checklist

##### Manic Episode

1. For 1 week or more, person displays a continually abnormal, inflated, unrestrained, or irritable mood as well as continually heightened energy or activity, for most of every day.

2. Person also experiences at least three of the following symptoms: • Grandiosity or overblown self-esteem • Reduced sleep need • Increased talkativeness, or drive to continue talking • Rapidly shifting ideas or the sense that one’s thoughts are moving very fast • Attention pulled in many directions • Heightened activity or agitated movements • Excessive pursuit of risky and potentially problematic activities.

3. Significant distress or impairment.

##### Bipolar I Disorder

1. Occurrence of a manic episode.

2. Hypomanic or major depressive episodes may precede or follow the manic episode.

##### Bipolar II Disorder

1. Presence or history of major depressive episode(s).

2. Presence or history of hypomanic episode(s).

3. No history of a manic episode.

DSM-5 distinguishes two kinds of bipolar disorders—bipolar I and bipolar II. People with bipolar I disorder have full manic and major depressive episodes. Most of them experience an alternation of the episodes; for example, weeks of mania followed by a period of wellness, followed in turn by an episode of depression. Some, however, have mixed features, in which they display both manic and depressive symptoms within the same episode—for example, having racing thoughts amidst feelings of extreme sadness. In bipolar II disorder, hypomanic—that is, mildly manic—episodes alternate with major depressive episodes over the course of time. Some people with this pattern accomplish huge amounts of work during their mild manic periods (see PsychWatch on page 244).

Without treatment, the mood episodes tend to recur for people with either type of bipolar disorder. If a person has four or more episodes within a one-year period, his or her disorder is considered to be rapid cycling. A woman describes her rapid cycling in the following excerpt, taken from a journal article she wrote anonymously several years ago.

This illness is about being trapped by your own mind and body. It’s about loss of control over your life. . . . To onlookers it seems that your whole personality has changed; the person they know is no longer in evidence. . . .

My mood may swing from one part of the day to another. I may wake up low at 10 am, but be high and excitable by 3 pm. I may not sleep for more than 2 hours one night, being full of creative energy, but by midday be so fatigued it is an effort to breathe.

If my elevated states last more than a few days, my spending can become uncontrollable . . . I remember being entranced by 18-metre lengths of coiled yellow extension wire. In my heightened state of awareness the coils of yellow looked exquisitely beautiful and irresistible. I wanted to buy several at once.

I will sometimes drive faster than usual, need less sleep and can concentrate well, making quick and accurate decisions. At these times I can also be sociable, talkative and fun, focused at times, distracted at others. If this state of elevation continues I often find that feelings of violence and irritability towards those I love will start to creep in. . . .

My thoughts speed up and I can lie in bed for hours at a time watching pictures on the inner sides of my eyelids. . . . I frequently want to be able to achieve several tasks at the same moment. I may want to read two novels, listen to music and write poetry all simultaneously becoming rapidly frustrated that I cannot do this.

Physically my energy levels can seem limitless. The body moves smoothly, there is little or no fatigue. I can go mountain biking all day when I feel like this and if my mood stays elevated not a muscle is sore or stiff the next day. But it doesn’t last, my elevated phases are short . . . the shift into severe depression or a mixed mood state occurs sometimes within minutes or hours, often within days and will last weeks often without a period of normality. Indeed I often lose track of what normality is.

Initially my thoughts become disjointed and start slithering all over the place. . . . They will sometimes remain rapid and are accompanied by paranoid delusions . . . I start to believe that others are commenting adversely on my appearance or behaviour. I can become very frightened and antisocial. . . . My sleep will be poor and interrupted by bad dreams. I will change from being the person who has the ideas—is the decision maker—to not being interested in anything at all.

The world appears bleak and a pointless round of social niceties. I will wear my most comfortable, often black clothes, everything else grazes and chafes at my skin. I become repelled by the proximity of people, acutely aware of interpersonal spaces that have somehow grown closer around me. I will be overwhelmed by the slightest tasks, even imagined tasks. . . . Physically there is immense fatigue:

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**bipolar I disorder** A type of bipolar disorder marked by full manic and major depressive episodes.

**bipolar II disorder** A type of bipolar disorder marked by mildly manic (hypomanic) episodes and major depressive episodes.

**cyclothymic disorder** A disorder marked by numerous periods of hypomanic symptoms and mild depressive symptoms.
my muscles scream with pain... I ache down to my bone marrow, my joints feel swollen... The exhaustion becomes so complete that eventually I drop into bed fully clothed... I will often sleep without being refreshed for up to 18 hours... Food becomes totally uninteresting or takes on a repulsive flavour, so I will lose weight rapidly during a long depressive phase... I become unable to concentrate to read a novel for pleasure, for escape... I start to feel trapped, that the only escape is death... My brain slows right down. I become stuck, unable to answer a simple question, unable to establish eye contact and unable to comprehend what is being asked of me.

I avoid answering the phone or the door. My voice deepens and slows sometimes to the point of slurring... As I begin to slip into a more psychotic state of mind I become unable to recognise something as familiar as the palm of my hand or my children's faces... Those I love around me become part of a conspiracy to harm me... Twisted tales and delusions.

I become passionate about one subject only at these times of deep and intense fear, despair and rage: suicide... I have made close attempts on my life... over the last few years... Then inexplicably, my mood will shift again. The fatigue drops from my limbs like shedding a dead weight, my thinking returns to normal, the light takes on an intense clarity, flowers smell sweet and my mouth curves to smile at my children, my husband and I am laughing again. Sometimes it's for only a day but I am myself again, the person that I was a frightening memory. I have survived another bout of this dreaded disorder...

This illness is about having to live life at its extremes of physical and mental endurance, having to go to places that most people never experience, would never want to experience. It has been about having unthought of limitations placed on your life, your career, your family... It has become about trying to stay alive and living life fully in the brief periods of normality or mild elevation that occur from time to time.

Otherwise, rapid cycling bipolar disorder is an unrelenting scourge.

(Anonymous, 2006)

Regardless of their particular pattern, people with a bipolar disorder tend to experience depression more than mania over the years (Advokat et al., 2014). In most cases, their depressive episodes occur three times as often as manic ones, and the depressive episodes also last longer.

Surveys from around the world indicate that between 1 and 2.6 percent of all adults are suffering from a bipolar disorder at any given time (Kessler et al., 2012; Merikangas et al., 2011). As many as 4 percent experience one of the bipolar disorders at some time in their life. Bipolar I disorder seems to be a bit more common than bipolar II disorder. The bipolar disorders are equally common in women and men. However, women may have more depressive episodes and more rapid cycling than men (Curtis, 2005; Papadimitriou et al., 2005). The disorders are more common among people with low incomes than those with higher incomes (Sareen et al., 2011).

Onset of bipolar disorder usually occurs between the ages of 15 and 44 years. In most untreated cases, the manic and depressive episodes eventually subside, only to recur at a later time. It also appears that over time, people with bipolar disorders develop more medical ailments than the rest of the population (Weiner, Warren, & Fiedorowitz, 2011).

Some people have numerous periods of hypomanic symptoms and mild depressive symptoms, a pattern that is called cyclothymic disorder in DSM-5. The
symptoms of this milder form of bipolar disorder continue for two or more years, interrupted occasionally by normal moods that may last for only days or weeks. This disorder, like bipolar I and bipolar II disorders, usually begins in adolescence or early adulthood and is equally common among women and men. At least 0.4 percent of the population develops cyclothymic disorder. In some cases, the milder symptoms eventually blossomed into a bipolar I or II disorder (Goto et al., 2011).

**PsychWatch**

**Abnormality and Creativity: A Delicate Balance**

Up to a point, states of depression, mania, anxiety, and even confusion can be useful. This may be particularly true in the arts. The ancient Greeks believed that various forms of “divine madness” inspired creative acts, from poetry to performance (Ludwig, 1995). Even today many people expect “creative geniuses” to be psychologically disturbed. A popular image of the artist includes a glass of liquor, a cigarette, and a tormented expression. Classic examples include writer William Faulkner, who suffered from alcoholism and received electroconvulsive therapy for depression; poet Sylvia Plath, who was depressed for most of her life and eventually committed suicide at age 31; and dancer Vaslav Nijinsky, who suffered from schizophrenia and spent many years in institutions. In fact, a number of studies indicate that artists and writers are somewhat more likely than others to suffer from certain mental disorders, particularly bipolar disorders (Kyaga et al., 2013, 2011; Galvez et al., 2011; Simonton, 2010; Sample, 2005).

Why might creative people be prone to such psychological disorders? Some may be predisposed to such disorders long before they begin their artistic careers; the careers may simply bring attention to their emotional struggles (Simonton, 2010; Ludwig, 1995). Indeed, creative people often have a family history of psychological problems (Kyaga et al., 2013, 2011). A number also have experienced intense psychological trauma during childhood. English novelist and essayist Virginia Woolf, for example, endured sexual abuse as a child.

Another reason for the creativity link may be that creative endeavors create emotional turmoil that is overwhelming. Truman Capote said that writing his famous book *In Cold Blood* “killed” him psychologically. Before writing this account of the brutal murders of a family, he considered himself “a stable person. . . . Afterward something happened to me” (Ludwig, 1995).

Yet a third explanation for the link between creativity and psychological disorders is that the creative professions offer a welcome climate for those with psychological disturbances. In the worlds of poetry, painting, and acting, for example, emotional expression, unusual thinking, and/or personal turmoil are valued as sources of inspiration and success (Galvez et al., 2011; Sample, 2005; Ludwig, 1995).

Much remains to be learned about the relationship between emotional turmoil and creativity, but work in this area has already clarified two important points. First, psychological disturbance is hardly a requirement for creativity. Most “creative geniuses” are, in fact, psychologically stable and relatively happy throughout their entire lives (Kaufman, 2013). Second, mild psychological disturbances relate to creative achievement much more strongly than severe disturbances do (Galvez et al., 2011; Simonton, 2010). For example, nineteenth-century composer Robert Schumann produced 27 works during one hypomanic year but next to nothing during years when he was severely depressed and suicidal (Jamison, 1995).

Some artists worry that their creativity would disappear if their psychological suffering were to stop. In fact, however, research suggests that successful treatment for severe psychological disorders more often than not improves the creative process (Jamison, 1995; Ludwig, 1995). Romantic notions aside, severe mental dysfunctioning has little redeeming value, in the arts or anywhere else.

The price of creativity? Like many other writers and artists, author J. K. Rowling has had periods of depression and even suicidal feelings at certain times in her life. Here, the *Harry Potter* author looks at the laptop of a child while launching her new Web project, Pottermore, at a London museum in 2011.
What Causes Bipolar Disorders?

Throughout the first half of the twentieth century, the search for the cause of bipolar disorders made little progress. Various explanations were proposed, but research did not support their validity. Psychodynamic theorists, for example, suggested that mania, like depression, emerges from the loss of a love object. Whereas some people introject the lost object and become depressed, others deny the loss and become manic. To avoid the terrifying conflicts generated by the loss, they escape into a dizzying round of activity (Lewin, 1950). Although case reports sometimes fit this explanation, only a few controlled studies have found a relationship between loss early or later in life and the onset of manic episodes (Post & Miklowitz, 2010; Tsuchiya et al., 2005).

More recently, biological research has produced some promising clues. The biological insights have come from research into neurotransmitter activity, ion activity, brain structure, and genetic factors.

**Neurotransmitters** Remember from Chapter 3 that neurotransmitters released from neurons’ axon endings carry messages to the dendrites of neighboring neurons by binding to receptor sites there. As you read, different psychological disorders have been linked to the abnormal functioning of various neurotransmitters, including norepinephrine. Could overactivity of norepinephrine be related to mania? This was the expectation of clinicians back in the 1960s after investigators first found a relationship between low norepinephrine activity and unipolar depression (Schildkraut, 1965). One study did indeed find the norepinephrine activity of people with mania to be higher than that of depressed or control research participants (Post et al., 1980, 1978). In another study, patients with a bipolar disorder were given reserpine, the blood pressure drug known to reduce norepinephrine activity in the brain, and the manic symptoms of some subsided (Telner et al., 1986).

Because serotonin activity often parallels norepinephrine activity in unipolar depression, theorists at first expected that mania would also be related to high serotonin activity, but no such relationship has been found. Instead, research suggests that mania, like depression, may be linked to low serotonin activity (Hsu et al., 2014; Nugent et al., 2013). Perhaps low activity of serotonin, acting again as a neuromodulator, opens the door to a mood disorder and permits the activity of

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**What Is Hypergraphia?**

*Hypergraphia* refers to a compulsive need to write. During severe episodes, people with this rare problem write constantly, not only filling up notebooks or computer screens but also feverishly finding unusual writing surfaces, including their own skin. The problem has been linked to several disorders, including bipolar disorders, temporal lobe epilepsy, and schizophrenia. There is speculation that some famous writers and artists worked under the sway of hypergraphia, such as prolific author Fyodor Dostoyevski and painter Vincent van Gogh, who produced an endless stream of paintings and letters.
norepinephrine (or perhaps other neurotransmitters) to define the particular form the disorder will take. That is, low serotonin activity accompanied by low norepinephrine activity may lead to depression; low serotonin activity accompanied by high norepinephrine activity may lead to mania. In recent years, researchers have found that bipolar disorder may also be tied to the abnormal activity of other neurotransmitters, such as GABA, the brain chemical you read about in Chapter 5 (Benes, 2011; Walderhaug et al., 2011).

**Ion Activity** While neurotransmitters play a significant role in the communication between neurons, ions seem to play a critical role in relaying messages within a neuron. That is, ions help transmit messages down the neuron’s axon to the nerve endings. Positively charged sodium ions (Na⁺) sit on both sides of a neuron’s cell membrane. When the neuron is at rest, more sodium ions sit outside the membrane. When the neuron receives an incoming message at its receptor sites, pores in the cell membrane open, allowing the sodium ions to flow to the inside of the membrane, thus increasing the positive charge inside the neuron. This starts a wave of electrical activity that travels down the length of the neuron and results in its “firing.” After the neuron “fires,” potassium ions (K⁺) flow from the inside of the neuron across the cell membrane to the outside, helping to return the neuron to its original resting state (see Figure 7-4).

If messages are to be relayed effectively down the axon, the ions must be able to travel easily between the outside and the inside of the neural membrane. Some theorists believe that irregularities in the transport of these ions may cause neurons...
to fire too easily (resulting in mania) or to stubbornly resist firing (resulting in depression) (Manji & Zarate, 2011; Li & El-Mallakh, 2004). Not surprisingly, investigators have found membrane defects in the neurons of people suffering from bipolar disorder and have observed abnormal functioning in the proteins that help transport ions across a neuron’s membrane (Sassi & Soares, 2002).

**Brain Structure** Brain imaging and postmortem studies have identified a number of abnormal brain structures in people with bipolar disorders (Eker et al., 2014; Chen et al., 2011; Savitz & Drevets, 2011). For example, the basal ganglia and cerebellum of these people tend to be smaller than those of other people, they have lower volumes of gray matter in the brain, and their dorsal raphe nucleus, striatum, amygdala, hippocampus, and prefrontal cortex have some structural abnormalities. It is not clear what role such structural abnormalities play in bipolar disorders. It may be that they help produce the neurotransmitter and ion abnormalities that you read about earlier. The dorsal raphe nucleus, for example, is one of the brain sites where serotonin is produced. Alternatively, the structural problems may simply be the result of the neurotransmitter or ion abnormalities or of the medications that many patients with bipolar disorders now take.

**Genetic Factors** Many theorists believe that people inherit a biological predisposition to develop bipolar disorders (Wiste et al., 2014; Glahn & Burdick, 2011; Gershon & Nurnberger, 1995). Family pedigree studies support this idea. Identical twins of those with a bipolar disorder have a 40 percent likelihood of developing the same disorder, and fraternal twins, siblings, and other close relatives of such persons have a 5 to 10 percent likelihood, compared with the 1 to 2.6 percent prevalence rate in the general population.

Researchers have also conducted *genetic linkage* studies to identify possible patterns in the inheritance of bipolar disorders. They select large families that have had high rates of a disorder over several generations, observe the pattern of distribution of the disorder among family members, and determine whether it closely follows the distribution pattern of a known genetically transmitted family trait (called a *genetic marker*), such as color blindness, red hair, or a particular medical syndrome.
After studying the records of Israeli, Belgian, Italian, and Finnish families that had high rates of bipolar disorders across several generations, several researchers seemed to have linked bipolar disorders to genes on the X chromosome (Ekholm et al., 2002; Mendlewicz et al., 1987, 1980). Other research teams, however, later used techniques from molecular biology to examine genetic patterns in large families, and they linked bipolar disorders to genes on chromosomes 1, 4, 6, 10, 11, 12, 13, 15, 18, 20, 21, and 22 (Green et al., 2013; Bigdeli et al., 2013; Wendland and McMahon, 2011). Such wide-ranging findings suggest that a number of genetic abnormalities probably combine to help bring about bipolar disorders.

PUTTING IT...together

Making Sense of All That Is Known

With mood problems so prevalent in all societies, it is no wonder that moods have been the focus of so much research. Great quantities of data have been gathered about moods—from normal mood states like happiness and sadness (see InfoCentral on the next page) to disorders of mood. Still, clinicians have yet to understand fully all that they know.

Several factors have been tied closely to unipolar depression, including biological abnormalities, a reduction in positive reinforcements, negative ways of thinking, a perception of helplessness, and life stress and other sociocultural influences. Indeed, more contributing factors have been associated with unipolar depression than with most other psychological disorders. Precisely how all of these factors relate to unipolar depression, however, is unclear. Several relationships are possible:

1. One of the factors may be the key cause of unipolar depression. That is, one theory may be more useful than any of the others for predicting and explaining how unipolar depression occurs. If so, cognitive or biological factors are leading candidates, for these kinds of factors have each been found, at times, to precede and predict depression.

2. Different factors may be capable of initiating unipolar depression in different people (Goldstein et al., 2011). Some people may, for example, begin with low serotonin activity, which predisposes them to react helplessly in stressful situations, interpret events negatively, and enjoy fewer pleasures in life. Others may first suffer a severe loss, which triggers helplessness reactions, low serotonin activity, and reductions in positive rewards. Regardless of the initial cause, these factors may merge into a “final common pathway” of unipolar depression.

3. An interaction between two or more specific factors may be necessary to produce unipolar depression. Perhaps people will become depressed only if they have low levels of serotonin activity, feel helpless, and repeatedly blame themselves for negative events.

4. The various factors may play different roles in unipolar depression. Some may cause the disorder, some may result from it, and some may keep it going. Peter Lewinsohn and his colleagues (1988) assessed more than 500 nondepressed persons on the various factors linked to depression. They then assessed the study’s participants again 8 months later to see who had in fact become depressed and which of the factors had predicted depression. Negative thinking, self-dissatisfaction, and life stress were found to precede and predict depression; poor social relationships and reductions in positive rewards did not. The researchers concluded that the former factors help cause unipolar depression, while the latter simply accompany or result from depression and perhaps help maintain it.
**SADNESS**

Depression, a clinical disorder that causes considerable distress and impairment, features a range of symptoms, including emotional, motivational, behavioral, cognitive, and physical symptoms. *Sadness* is often one of the symptoms found in depression, but most often it is a perfectly normal negative emotion triggered by a loss or other painful circumstance.

**SADNESS DIFFERS FROM CLINICAL DEPRESSION**

- **Disadvantages of sadness**
  - Decreases creativity and original thinking
  - Decreases ability to multitask
  - Decreases ability to delay gratification
  - Decreases patience
  - Decreases awareness of the “big picture”
  - Decreases playfulness
  - Increases preference for smaller immediate financial rewards over deferred larger rewards
  - Increases poor financial decisions

- **Benefits of sadness**
  - Studies have found that temporary states of sadness can have numerous benefits.
    - Improves attention to details
    - Improves accuracy of memory
    - Improves ability to detect deception
    - Increases perseverance
    - Promotes generosity
    - Improves social judgments
    - Increases altruism
    - Improves interpersonal strategies

**THE COLOR OF SADNESS**

When people are sad, they often see the world as dreary. Perception researchers have found that sad people actually prefer dreary and dark colors, particularly gray. Which colors are sad people drawn to?

- **Lifestyle Factors**
  - Physical exercise
  - Active involvement
  - Spending time in natural light
  - Getting organized
  - Spending time with a pet
  - Getting enough sleep
  - Eating healthfully

- **Social Factors**
  - Social support
  - Professional support

- **Cognitive Factors**
  - Positive thinking
  - Creativity
  - Accepting sadness with an understanding it may take a while to get over
  - Challenging negative thoughts
  - Scheduling positive events

**THE HOLIDAY BLUES**

Many people become especially happy as holidays approach and during the holidays themselves. Others, however, become sad and anxious at holiday time—a reaction called “the holiday blues.”

**What causes the holiday blues?**

- Stress and fatigue
- Unrealistic expectations
- Excessive responsibility
- Overcommercialization
- Overactivity and/or overspending
- Being without family and friends
- Reminders of sorrowful events
As with unipolar depression, clinicians and researchers have learned much about bipolar disorders during the past 35 years. But bipolar disorders appear to be best explained by a focus on one kind of variable—biological factors. The evidence suggests that biological abnormalities, perhaps inherited and perhaps triggered by life stress, cause bipolar disorders (Bender & Alloy, 2011). Whatever roles other factors may play, the primary one appears to lie in this realm.

Thus we see in this chapter that one kind of disorder may result from multiple causes, while another may result largely from a single factor. Although today’s theorists are increasingly looking for intersecting factors to explain various psychological disorders, this is not always the most enlightening course. It depends on the disorder. What is important is that the cause or causes of a disorder be recognized. Scientists can then invest their energies more efficiently and clinicians can better understand the persons with whom they work.

There is no question that investigations into the symptoms and causes of depressive and bipolar disorders have been fruitful and enlightening. And it is more than reasonable to expect that important research findings and insights will continue to unfold in the years ahead. Now that clinical researchers have gathered so many important pieces of the puzzle, they must put the pieces together into a still more meaningful picture that will suggest even better ways to predict, prevent, and treat these disorders.

\[\text{SUMMING UP}\]

- **DEPRESSIVE VERSUS BIPOLAR DISORDERS** People with depressive disorders and bipolar disorders have mood problems that tend to last for months or years, dominate their interactions with the world, and disrupt their normal functioning. Those with depressive disorders grapple with depression only, called unipolar depression. Those with bipolar disorders contend with both depression and mania. p. 216

- **UNIPOLAR DEPRESSION: THE DEPRESSIVE DISORDERS** People with unipolar depression, the most common pattern of mood difficulty, suffer exclusively from depression. The symptoms of depression span five areas of functioning: emotional, motivational, behavioral, cognitive, and physical. Depressed people are also at higher risk for suicidal thinking and behavior. Women are at least twice as likely as men to experience severe unipolar depression. p. 216–222

- **EXPLANATIONS OF UNIPOLAR DEPRESSION** Each of the leading models has offered explanations for unipolar depression. The biological, cognitive, and sociocultural views have received the most research support.

  According to the biological view, low activity of two neurotransmitters, norepinephrine and serotonin, helps cause depression. Hormonal factors may also be at work. So too may deficiencies of key proteins and other chemicals within certain neurons. Brain imaging research has also tied depression to abnormalities in a circuit of brain areas, including the prefrontal cortex, the hippocampus, the amygdala, and Brodmann Area 25. All such biological problems may be linked to genetic factors.

  According to the psychodynamic view, certain people who experience real or imagined losses may regress to an earlier stage of development, introject feelings for the lost object, and eventually become depressed.

  The behavioral view says that when people experience a large reduction in their positive rewards in life, they may display fewer and fewer positive
behaviors. This response leads to a still lower rate of positive rewards and eventually to depression.

The leading cognitive explanations of unipolar depression focus on negative thinking and learned helplessness. According to Beck's theory of negative thinking, maladaptive attitudes, the cognitive triad, errors in thinking, and automatic thoughts help produce unipolar depression. According to Seligman's learned helplessness theory, people become depressed when they believe that they have lost control over the reinforcements in their lives and when they attribute this loss to causes that are internal, global, and stable.

Sociocultural theorists propose that unipolar depression is influenced by social and cultural factors. Family-social theorists point out that a low level of social support is often linked to unipolar depression. And multicultural theorists have noted that the character and prevalence of depression often vary by gender and sometimes by culture. pp. 222–240

- BIPOLAR DISORDERS In bipolar disorders, episodes of mania alternate or intermix with episodes of depression. These disorders are much less common than unipolar depression. They may take the form of bipolar I, bipolar II, or cyclothymic disorder. pp. 240–244

- EXPLANATIONS OF BIPOLAR DISORDERS Mania may be related to high norepinephrine activity along with a low level of serotonin activity. Some researchers have also linked bipolar disorders to improper transport of ions back and forth between the outside and the inside of a neuron's membrane; others have focused on deficiencies of key proteins and other chemicals within certain neurons; and still others have uncovered abnormalities in key brain structures. Genetic studies suggest that people may inherit a predisposition to these biological abnormalities. pp. 245–248

In Their Words
“No one can make you feel inferior without your consent.”
Eleanor Roosevelt

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to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
Mid-twenties life circumstances were poor and I really plummeted. . . . The thing that made me go for help . . . was probably my daughter . . . I thought, this isn’t right, this can’t be right, she cannot grow up with me in this state. . . . I got counseling . . . [The therapist] absolutely saved me.

J. K. Rowling, author of the “Harry Potter” books (in Amini, 2008)

When you’re clinically depressed the serotonin in your brain is out of balance and probably always will be out of balance. So I take medication to get that proper balance back. I’ll probably have to be on it the rest of my life.

Terry Bradshaw, Super Bowl quarterback and sports analyst (in Morgan & Shoop, 2004)

[A holistic healer] introduced me to this new way of kind of treating depression, which is without the uptake inhibitors, to slowly get off the uptake inhibitors with the help of a doctor . . . Supplements . . . It is vitamins . . . It’s a wonderful thing.

Jim Carrey, comedy actor (Carrey, 2013, 2008)

I struggled with chronic depression. I was in bad shape. . . . I did do therapy and antidepressants for a brief period, which helped me. Which is what therapy does: it gives you another perspective when you are so lost in your own spiral . . . And honestly? Antidepressants help! If you can change your brain chemistry enough to think: “I want to get up in the morning.”

John Hamm, actor, star of Mad Men (Hamm, 2010)

In my case, ECT [electroconvulsive therapy] was miraculous. My wife was dubious, but when she came into my room afterward, I sat up and said “Look who’s back among the living.” It was like a magic wand.

Dick Cavett, talk show host (Cavett, 1992)

I took [lithium] faithfully and found that life was a much stabler and more predictable place than I had ever reckoned. My moods were still intense and my temperament rather quick to the boil, but I could make plans with far more certainty and the periods of absolute blackness were fewer and less extreme. . . .

Kay Redfield Jamison, clinical researcher (in Jamison, 1993, pp. 5, 153, 212)

[The hospital was my salvation, and it is something of a paradox that in this austere place with its locked and wired doors and desolate green hallways . . . I found the repose, the assuagement of the tempest in my brain, that I was unable to find in my quiet farmhouse. . . . For me the real healers were seclusion and time.

William Styron, novelist (in Styron, 1990, pp. 68–69)

Each of these people suffered from and overcame a depressive or bipolar disorder. And, clearly, all believe that the treatment they received was a key to their improvement—a key that opened the door to a more normal, stable, and productive life. Yet the treatments that seemed to help them differed greatly. Psychotherapy helped bring meaning back to the life of J. K. Rowling. Antidepressant drugs were the key for Terry Bradshaw, vitamins for Jim Carrey, and
a combination of psychotherapy and medications for John Hamm. Electroconvulsive therapy, popularly known as shock treatment, lifted Dick Cavett from the black hole of his unipolar depression. Hospitalization and its temporary retreat were the answer for William Styron. And Kay Jamison escaped the roller-coaster ride of bipolar disorders with the help of lithium, a common element found in mineral salts.

How could such diverse therapies be so helpful to people suffering from the same or similar disorders? As this chapter will show, disorders that feature severe changes in mood—as painful and disabling as they tend to be—respond more successfully to more kinds of treatment than do most other forms of psychological dysfunction (Cuijpers et al., 2014). This range of treatment options has been a source of reassurance and hope for the millions of people who desire desperately to regain some measure of control over their moods (see Figure 8-1).

Treatments for Unipolar Depression

In the United States, around half of those with unipolar depression receive treatment from a mental health professional each year. Access to such treatment differs among ethnic and racial groups. As you read in the previous chapter, only 34 percent of depressed Hispanic Americans and 40 percent of depressed African Americans receive treatment, compared with 54 percent of depressed white Americans (González et al., 2010).

In addition, many people in therapy experience depressed feelings as part of another disorder, such as an eating disorder, or in association with changes or general problems that they are encountering in life. Thus much of the therapy being done today includes a focus on unipolar depression.

A variety of treatment approaches are currently in widespread use for unipolar depression. In this chapter, we first look at the psychological approaches, focusing on the psychodynamic, behavioral, and cognitive therapies. We then explore the sociocultural approaches, including a highly regarded intervention called interpersonal psychotherapy. Next, we look at effective biological approaches, including electroconvulsive therapy, antidepressant drugs, and new brain stimulation interventions. In the process, we can see that unipolar patterns of depression are indeed among the most successfully treated of all psychological disorders.

How do people feel about depression and treatment? According to a recent survey, more than 80 percent of Americans believe that depression is a serious condition that requires treatment. Nineteen percent consider depression to be a sign of personal weakness (Information from: National Alliance on Mental Illness (2009). Depression Survey Initiative. November 9.).
Psychological Approaches

The psychological treatments used most often to combat unipolar depression come from the psychodynamic, behavioral, and cognitive schools of thought. Psychodynamic therapy, the oldest of all modern psychotherapies, continues to be used widely for depression even though research has not offered strong evidence of its effectiveness. Behavioral therapy, effective primarily for mild or moderate depression, is practiced less often today than it was in past decades. Cognitive therapy and cognitive-behavioral therapies have performed so well in research that they have a large and growing following among clinicians (Young et al., 2014).

Psychodynamic Therapy

Believing that unipolar depression results from unconscious grief over real or imagined losses, compounded by excessive dependence on other people, psychodynamic therapists seek to help clients bring these underlying issues to consciousness and work them through. Using the arsenal of basic psychodynamic procedures, they encourage the depressed client to associate freely during therapy; suggest interpretations of the client’s associations, dreams, and displays of resistance and transference; and help the person review past events and feelings (Busch et al., 2004). Free association, for example, helped one man recall the early experiences of loss that, according to his therapist, had set the stage for his depression:

> Among his earliest memories, possibly the earliest of all, was the recollection of being wheeled in his baby cart under the elevated train structure and left there alone. Another memory that recurred vividly during the analysis was of an operation around the age of five. He was anesthetized and his mother left him with the doctor. He recalled how he had kicked and screamed, raging at her for leaving him.

(Lorand, 1968, pp. 325–326)

Psychodynamic therapists expect that in the course of treatment depressed clients will eventually gain awareness of the losses in their lives, become less dependent on others, cope with losses more effectively, and make corresponding changes in their functioning. The transition of a therapeutic insight into a real-life change is seen in the case of a middle-aged executive:

> The patient’s father was still living and in a nursing home, where the patient visited him regularly. On one occasion, he went to see his father full of high expectations, as he had concluded a very successful business transaction. As he began to describe his accomplishments to his father, however, the latter completely ignored his son’s remarks and viciously berated him for wearing a pink shirt, which he considered unprofessional. Such a response from the father was not unusual, but this time, as a result of the work that had been accomplished in therapy, the patient could objectively analyze his initial sense of disappointment and deep feeling of failure for not pleasing the older man. Although this experience led to a transient state of depression, it also revealed to the patient his whole dependent lifestyle—his use of others to supply him with a feeling of worth. This experience added a dimension of immediate reality to the insights that had been achieved in therapy and gave the patient the motivation to change radically his childhood system of perceiving himself in relation to paternal transference figures.

(Bemporad, 1992, p. 291)
Despite successful case reports such as this, researchers have found that long-term psychodynamic therapy is only occasionally helpful in cases of unipolar depression (Prochaska & Norcross, 2013). Two features of the approach may help limit its effectiveness. First, depressed clients may be too passive and feel too weary to join fully into the subtle therapy discussions. And second, they may become discouraged and end treatment too early when this long-term approach is unable to provide the quick relief that they desperately seek. Generally, psychodynamic therapy seems to help most in cases of depression that clearly involve a history of childhood loss or trauma, a long-standing sense of emptiness, feelings of perfectionism, and extreme self-criticism (Luyten & Blatt, 2011; Blatt, 1999, 1995). Short-term psychodynamic therapies have performed better than the traditional, longer-term approaches (Midgley et al., 2013; Lemma, Target, & Fonagy, 2011).

**Behavioral Therapy** Behaviorists, whose theories of depression tie mood to the rewards in a person’s life, have developed corresponding treatments for unipolar depression. Most such treatments are modeled after the intervention proposed by Peter Lewinsohn, the behavioral theorist whose theory of depression was described in Chapter 7 (see pages 229, 231). In a typical behavioral approach, therapists (1) reintroduce depressed clients to pleasurable events and activities, (2) appropriately reward nondepressive behaviors and withhold rewards for depressive behaviors, and (3) help clients improve their social skills (Dimidjian et al., 2014).

First, the therapist selects activities that the client considers pleasurable, such as going shopping or taking photos, and encourages the person to set up a weekly schedule for engaging in them. Studies have shown that adding positive activities to a person’s life—sometimes called *behavioral activation*—can indeed lead to a better mood (Dimidjian et al., 2014; Martell et al., 2010). In the following case description, a therapist describes this process, revealing how detailed the client–therapist planning sessions must be:

> [Alicia] had never noticed a connection between her activities and her mood before. The depression had just felt like something that loomed over her, coloring everything. Worry and tension also seemed like constant companions. She now recognized that there were many subtle shifts in her mood, including some moments in which she experienced relief from the depression and accompanying worry. She felt content when she worked in her garden. After many weeks of avoiding friends, she felt relief when she had dinner with her friend Ellen. . . . As Alicia reviewed these activities with [her therapist], she also began to identify activities that she could increase during the upcoming week following their therapy session. Alicia thought that getting in touch with more friends could be helpful for her mood. . . . [She] decided that seeing Ellen again for coffee would be the most logical place to start. . . . Ellen’s social personality might . . . help Alicia reconnect with some of her other old friends over time. She planned to set up a coffee date with Ellen either on Wednesday after work or on the following Saturday morning. Alicia also enjoyed the contentment she usually felt when she worked in her pea patch. [The therapist] asked what she might do the next week in her garden. Alicia realized that she needed to get some mulch, so they wrote down a plan for that activity as well. . . . She agreed that she would report back to [the therapist] about how she felt during these activities in the next session.

(Martell et al., 2010)
While reintroducing pleasurable events into a client’s life, the therapist makes sure that the person’s various behaviors are reinforced correctly. Behaviorists argue that when people become depressed, their negative behaviors—crying, ruminating, complaining, or self-depreciation—keep others at a distance, reducing chances for rewarding experiences and interactions. To change this pattern, therapists guide clients to monitor their negative behaviors (see MindTech on page 260) and to try new, more positive ones (Dimidjian et al, 2014; Martell et al., 2010). In addition, the therapist may use a contingency management approach, systematically ignoring a client’s depressive behaviors while praising or otherwise rewarding constructive statements and behavior, such as going to work. Sometimes family members and friends are recruited to help with this feature of treatment.

Finally, behavioral therapists may train clients in effective social skills (Thase, 2012; Hersen et al., 1984). In group therapy programs, for example, members may work together to improve eye contact, facial expression, posture, and other behaviors that send social messages.

These behavioral techniques seem to be of only limited help when just one of them is applied. In one classic study, for example, depressed people who were instructed to increase their pleasant activities showed no more improvement than those in a control group who were told simply to keep track of their activities (Hammen & Glass, 1975). However, when two or more behavioral techniques are combined, behavioral treatment does appear to reduce depressive symptoms, particularly if the depression is mild (Dimidjian et al, 2014; Martell et al., 2010; Jacobson et al., 2001, 1996). It is worth noting that Lewinsohn himself has combined behavioral techniques with cognitive strategies in recent years, in an approach similar to the cognitive-behavioral treatments discussed in the next section.

Cognitive Therapy In Chapter 7 you saw that Aaron Beck viewed unipolar depression as resulting from a pattern of negative thinking that may be triggered by current upsetting situations. Maladaptive attitudes lead people repeatedly to view themselves, their world, and their future in negative ways—the so-called cognitive triad. Such biased views combine with illogical thinking to produce automatic thoughts,
unrelentingly negative thoughts that flood the mind and produce the symptoms of depression.

To help clients overcome this negative thinking, Beck has developed a treatment approach that he calls **cognitive therapy**. He uses this label because the approach is designed primarily to help clients recognize and change their negative cognitive processes and thus to improve their mood (Beck & Weishaar, 2014; Young et al., 2014). However, as you will see, the approach also includes a number of behavioral techniques (Figure 8-2), particularly as therapists try to get clients moving again and encourage them to try out new behaviors. Thus, many theorists consider this approach a **cognitive-behavioral therapy** rather than the purely cognitive intervention implied by its name. Beck’s approach is similar to Albert Ellis’ rational-emotive therapy (discussed in Chapters 3 and 5), but it is tailored to the specific cognitive errors found in depression. The approach follows four phases and usually requires fewer than 20 sessions (see Table 8-1 on the next page).

**Phase 1: Increasing Activities and Elevating Mood**

Using behavioral techniques to set the stage for cognitive treatment, therapists first encourage clients to become more active and confident. Clients spend time during each session preparing a detailed schedule of hourly activities for the coming week. As they become more active from week to week, their mood is expected to improve.

**Phase 2: Challenging Automatic Thoughts**

Once people are more active and feeling some emotional relief, cognitive therapists begin to educate them about their negative automatic thoughts. The individuals are instructed to recognize and record automatic thoughts as they occur and to bring their lists to each session. Therapist and client then test the reality behind the thoughts, often concluding that they are groundless. Beck offers the following exchange as an example of this sort of review:

**Therapist:** Why do you think you won’t be able to get into the university of your choice?

**Patient:** Because my grades were really not so hot.

**Therapist:** Well, what was your grade average?

**Patient:** Well, pretty good up until the last semester in high school.

**Therapist:** What was your grade average in general?

**Patient:** A’s and B’s.

**Therapist:** Well, how many of each?

**Patient:** Well, I guess, almost all of my grades were A’s but I got terrible grades my last semester.

**Therapist:** What were your grades then?

**Patient:** I got two A’s and two B’s.

**Therapist:** Since your grade average would seem to me to come out to almost all A’s, why do you think you won’t be able to get into the university?

**Patient:** Because of competition being so tough.

**Therapist:** Have you found out what the average grades are for admission to the college?

**Patient:** Well, somebody told me that a B+ average would suffice.

**Therapist:** Isn’t your average better than that?

**Patient:** I guess so.

*(Beck et al., 1979, p. 153)*

---

**figure 8-2**

**Increasing activity** In the early stages of cognitive therapy for depression, the client and therapist prepare an activity schedule such as this. Activities as simple as watching television and calling a friend are specified. (Reprinted with permission of Guilford Press from Cognitive therapy of depression, Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979); permission conveyed through Copyright Clearance Center, Inc.)

**cognitive therapy** A therapy developed by Aaron Beck that helps people identify and change the maladaptive assumptions and ways of thinking that help cause their psychological disorders.
PHASE 3: IDENTIFYING NEGATIVE THINKING AND BIASES As people begin to recognize the flaws in their automatic thoughts, cognitive therapists show them how illogical thinking processes are contributing to these thoughts. The depressed student, for example, was using dichotomous (all-or-nothing) thinking when she concluded that any grade lower than A was "terrible." The therapists also assist clients in recognizing that almost all their interpretations of events have a negative bias and to change that style of interpretation.

PHASE 4: CHANGING PRIMARY ATTITUDES Therapists help clients change the maladaptive attitudes that set the stage for their depression in the first place. As part of the process, therapists often encourage clients to test their attitudes, as in the following therapy discussion:

**Therapist:** On what do you base this belief that you can't be happy without a man?

**Patient:** I was really depressed for a year and a half when I didn't have a man.

**Therapist:** Is there another reason why you were depressed?

**Patient:** As we discussed, I was looking at everything in a distorted way. But I still don't know if I could be happy if no one was interested in me.

**Therapist:** I don't know either. Is there a way we could find out?

**Patient:** Well, as an experiment, I could not go out on dates for a while and see how I feel.

**Therapist:** I think that's a good idea. Although it has its flaws, the experimental method is still the best way currently available to discover the facts. You're fortunate in being able to run this type of experiment. Now, for the first time in your adult life you aren't attached to a man. If you find you can be happy without a man, this will greatly strengthen you and also make your future relationships all the better.

(Stein et al., 1979, pp. 253–254)

Over the past several decades, hundreds of studies have shown that Beck's therapy and similar cognitive and cognitive-behavioral approaches help with unipolar depression. Depressed adults who receive these therapies improve much more than those who receive placebos or no treatment at all (Young et al., 2014; Hollon

---

**table: 8-1**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Treatment</th>
<th>Average Duration of Treatment</th>
<th>Percent Improved by Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depressive disorder</td>
<td>Cognitive/Cognitive-behavioral therapy</td>
<td>20 sessions</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Interpersonal psychotherapy</td>
<td>20 sessions</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Antidepressant drugs</td>
<td>Indefinite</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>ECT</td>
<td>9 sessions</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Vagus nerve stimulation</td>
<td>1 session (plus follow-up)</td>
<td>60</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>Psychotropic drugs: Mood stabilizers, antipsychotics, and antidepressants</td>
<td>Indefinite</td>
<td>60</td>
</tr>
</tbody>
</table>
Cognitive-behavioral and other therapists who work with depressed clients often instruct the clients to keep track of their mood changes—hour by hour, day by day—and to also note the situations and thoughts that cause their moods to change. With such information in hand, the therapists can conduct more useful weekly therapy sessions—sessions that help their clients to change the thoughts, behaviors, and situations that may be triggering and intensifying their depression.

But accurately tracking information of this kind is easier said than done. It is hard for people to recall numerous mood changes throughout the day and week. And it is clumsy to keep taking out a diary and write down notes about one’s moods. Fortunately, such difficulties in tracking one’s moods are becoming a thing of the past. Using new texting programs and related smartphone apps—some of them originally developed for purposes other than therapy—clients can now easily record their mood changes, send this information to their therapists, and build on such information later in their therapy sessions.

There are many advantages to recording mood information in these new ways. Because the data is electronically stored and sorted, clients and their therapists can easily track subtle fluctuations and patterns in mood—patterns that might otherwise go unnoticed by someone in the throes of depression (Szalavitz, 2013). The electronic data analysis also can guide clients and therapists to detect red flags, such as unexpected mood changes or hidden triggers for downward turns in mood. In addition, some of these programs offer the advantage of being able to reach out to clients—sending them text message reminders to send in their mood data updates.

One such program, Mood 24/7, texts clients periodically, and the clients reply with numerical scores and accompanying descriptions of how they have been feeling. Its creator compares the process with the daily glucose monitoring successfully used by diabetes patients (Kaplan, 2013).

One of the pioneering mood-tracking programs, Moodscope, was developed in 2007 by British entrepreneur Jon Cousins to aid in the treatment of his own mood disorder (Szalavitz, 2013). Moodscope also offers users the option to share their mood data with other persons. Cousins found that he benefitted from the extra scrutiny and support that comes with such sharing.

Another mood-tracking app, Emotion Sense, has sparked controversy because it integrates a wide range of smartphone data. In addition to mood changes and the like, it collects information about location changes, Internet surfing habits, phone calls, and email use to provide a fuller data picture. Some worry that the collection of such additional information could land in the wrong hands and lead to an invasion of privacy. However, one of this program’s developers counters that this kind of additional information is already being made available surreptitiously by phone providers to commercial companies, and that Emotion Sense at least provides the information transparently to the users themselves for their own psychological gain (Rentfrow, 2013; Szalavitz, 2013).

It is not yet clear whether these or other such apps will eventually become a staple for the treatment of depression. But it is already clear that if used selectively and carefully, such tools are able to provide a level of detail and accuracy that clinical practitioners of the past could only dream about.
Treatments for Depressive and Bipolar Disorders

(Comas-Díaz, 2014). Around 50 to 60 percent show a near-total elimination of their symptoms. In view of this strong research support, many depression therapists have adopted cognitive and cognitive-behavioral approaches, offering them in either individual therapy, group therapy, or cybertherapy formats, all with considerable success (Straub et al., 2014; Andersson et al., 2013; Petrocelli, 2002).

It is worth noting that a growing number of today’s cognitive-behavioral therapists do not agree with Beck's proposition that individuals must fully discard their negative cognitions in order to overcome depression. These therapists, the new-wave cognitive-behavioral therapists about whom you read in Chapters 3 and 5, including those who practice acceptance and commitment therapy (ACT), guide depressed clients to recognize and accept their negative cognitions simply as streams of thinking that flow through their minds, rather than as valuable guides for behavior and decisions. As clients increasingly accept their negative thoughts for what they are, they can better work around the thoughts as they navigate their way through life (Levin et al., 2014; Wells et al., 2012; Hayes et al., 2006).

Sociocultural Approaches

As you read in Chapter 7, sociocultural theorists trace the causes of unipolar depression to the broader social structure in which people live and the roles they are required to play. Two groups of sociocultural treatments are now widely applied in cases of unipolar depression—multicultural approaches and family-social approaches.

Multicultural Treatments

In Chapter 3, you read that culture-sensitive therapies are designed to address the unique issues faced by members of cultural minority groups (Comas-Díaz, 2014). For such approaches, therapists typically have special cultural training and a heightened awareness of their clients' cultural values and the culture-related stressors, prejudices, and stereotypes that their clients face. They make an effort to help clients develop a comfortable (for them) bicultural balance and to recognize the impact of their own culture and the dominant culture on their views of themselves and on their behaviors (Prochaska & Norcross, 2013).

In the treatment of unipolar depression, culture-sensitive approaches increasingly are being combined with traditional forms of psychotherapy to help minority clients overcome their disorders (Aguilera, Garza, & Muñoz, 2010; Stacciarini et al., 2007). A number of today's therapists, for example, offer cognitive-behavioral therapy for depressed minority clients while also focusing on the clients' economic pressures, minority identity, and related cultural issues. A range of studies indicate that Hispanic American, African American, American Indian, and Asian American clients are more likely to overcome their depressive disorders when a culture-sensitive focus is added to the form of psychotherapy that they are otherwise receiving (Comas-Díaz, 2014; Ward, 2007). Unfortunately, this kind of combination therapy for depression, while on the increase, is still unavailable to most minority clients (Dwight-Johnson & Lagomasino, 2007).

It also appears that the medication needs of many depressed minority clients, especially those who are poor, are inadequately addressed. As you will see later in this chapter, for example, minority clients are less likely than white American clients to receive the most helpful antidepressant medications.

Family-Social Treatments

Therapists who use family and social approaches to treat depression help clients change how they deal with the close relationships in their lives. The most effective family-social approaches are interpersonal psychotherapy and couple therapy.
### INTERPERSONAL PSYCHOTHERAPY

Developed by clinical researchers Gerald Klerman and Myrna Weissman, interpersonal psychotherapy (IPT) holds that any of four interpersonal problem areas may lead to depression and must be addressed: interpersonal loss, interpersonal role dispute, interpersonal role transition, and interpersonal deficits (Bleiberg & Markowitz, 2014; Verdeli, 2014). Over the course of around 16 sessions, IPT therapists address these areas.

First, depressed people may, as psychodynamic theorists suggest, be having a grief reaction over an important interpersonal loss, the loss of a loved one. In such cases, IPT therapists encourage clients to explore their relationship with the lost person and express any feelings of anger they may discover. Eventually clients develop new ways of remembering the lost person and also look for new relationships.

Second, depressed people may find themselves in the midst of an interpersonal role dispute. Role disputes occur when two people have different expectations of their relationship and of the role each should play. IPT therapists help clients examine whatever role disputes they may be involved in and then develop ways of resolving them.

Depressed people may also be going through an interpersonal role transition, brought about by major life changes such as divorce or the birth of a child. They may feel overwhelmed by the role changes that accompany the life change. In such cases, IPT therapists help them develop the social supports and skills the new roles require.

Finally, some depressed people display interpersonal deficits, such as extreme shyness or social awkwardness, that prevent them from having intimate relationships. IPT therapists may help such clients recognize their deficits and teach them social skills and assertiveness in order to improve their social effectiveness. In the following discussion, the therapist encourages a depressed man to recognize the effect his behavior has on others:

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**Client:** (After a long pause with eyes downcast, a sad facial expression, and slumped posture) People always make fun of me. I guess I’m just the type of guy who really was meant to be a loner, damn it. (Deep sigh)

**Therapist:** Could you do that again for me?

**Client:** What?

**Therapist:** The sigh, only a bit deeper.

**Client:** Why? (Pause) Okay, but I don’t see what . . . okay. (Client sighs again and smiles)

**Therapist:** Well, that time you smiled, but mostly when you sigh and look so sad I get the feeling that I better leave you alone in your misery, that I should walk on eggshells and not get too chummy or I might hurt you even more.

**Client:** (A bit of anger in his voice) Well, excuse me! I was only trying to tell you how I felt.

**Therapist:** I know you felt miserable, but I also got the message that you wanted to keep me at a distance, that I had no way to reach you.

**Client:** (Slowly) I feel like a loner, I feel that even you don’t care about me—making fun of me.

**Therapist:** I wonder if other folks need to pass this test, too?

*(Beier & Young, 1984, p. 270)*

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**Role transition**

Major life changes such as marriage, the birth of a child, or divorce can create difficulties in role transition, one of the interpersonal problem areas addressed by IPT therapists in their work with depressed clients.
Studies suggest that IPT and related interpersonal treatments for depression have a success rate similar to that of cognitive and cognitive-behavioral therapies (Bleiberg & Markowitz, 2014; Frank & Levenson, 2011). That is, symptoms almost totally disappear in 50 to 60 percent of clients who receive treatment. After IPT, not only are their depressive symptoms reduced, but clients also function more effectively in their social and family interactions. Not surprisingly, IPT is considered especially useful for depressed people who are struggling with social conflicts or undergoing changes in their careers or social roles (Ravitz, Watson, & Grigoriadis, 2013).

COUPLE THERAPY As you have read, depression can result from marital discord, and recovery from depression is often slower for people who do not receive support from their spouse (Whisman & Beach, 2012; Whisman & Schonbrun, 2010). In fact, as many as half of all depressed clients may be in a dysfunctional relationship. Thus it is not surprising that many cases of depression have been treated by couple therapy, the approach in which a therapist works with two people who share a long-term relationship (Cohen et al., 2014).

Therapists who offer integrative behavioral couples therapy teach specific communication and problem-solving skills to couples and further guide them to be more accepting of each other (see Chapter 3). When the depressed person’s relationship is filled with conflict, this approach and similar ones may be as effective as individual cognitive therapy, interpersonal psychotherapy, or drug therapy in helping to reduce depression (Lebow et al., 2012, 2010; Franchi, 2004). In addition, depressed clients who receive couple therapy are more likely than those in individual therapy to be more satisfied with their marriage after treatment.

Biological Approaches
Like several of the psychological and sociocultural therapies, biological treatments can bring significant relief to people with unipolar depression. Usually biological treatment means antidepressant drugs or popular herbal supplements (see InfoCentral on the next page), but for severely depressed people who do not respond to other forms of treatment, it sometimes means electroconvulsive therapy, an approach that has been around for more than 70 years, or brain stimulation, a relatively new group of approaches.

Electroconvulsive Therapy One of the most controversial forms of treatment for depression is electroconvulsive therapy (ECT). Clinicians and patients alike vary greatly in their opinions of this procedure. Some consider it a safe biological approach with minimal risks; others believe it to be an extreme measure that can cause troublesome memory loss and even neurological damage. Despite the heat of this controversy, ECT is used frequently, largely because it is an effective and fast-acting intervention for unipolar depression (Pfeiffer et al., 2011; Loo, 2010).

THE TREATMENT PROCEDURE In an ECT procedure, two electrodes are attached to the patient’s head, and 65 to 140 volts of electricity are passed through the brain for half a second or less. This results in a brain seizure that lasts from 25 seconds to a few minutes. After 6 to 12 such treatments, spaced over 2 to 4 weeks, most patients feel less depressed (Fink, 2014, 2007, 2001). In bilateral ECT, one electrode is applied to each side of the forehead, and a current passes through both sides of the brain. In unilateral ECT, the electrodes are placed so that the current passes through only one side.

THE ORIGINS OF ECT The discovery that electric shock can be therapeutic was made by accident. In the 1930s, clinical researchers mistakenly came to believe that brain seizures, or the convulsions (severe body spasms) that accompany them, could cure schizophrenia and other psychotic disorders. They observed that people with
Dietary supplements, also known as nutraceuticals, are non-pharmaceutical and nonfood substances that people may take to supplement their diets, often to help prevent or treat psychological or physical ailments. Depression is the psychological problem for which nutraceuticals are used most often.

Nutraceuticals are... 

- **Herbal supplements (plant-derived substances)**: St. John’s wort, Rhodiola rosea.
- **Nutrients (essential nourishing ingredients found in food)**: Omega-3 fatty acids, Vitamin B, Vitamin D, Folate.
- **Natural hormones/amino acids (substances identical to hormones or amino acids normally produced by the human body)**: s-adenosylmethionine (SAM-e), L-Tryptophan, Melatonin.

Depressed people take nutraceuticals because...
- they are not helped by conventional treatments
- they developed major side effects to antidepressant drugs
- they cannot afford conventional treatments
- they dislike modern medications
- they prefer more natural treatments

Nutraceuticals are assumed to be safe unless the FDA can prove them harmful.
- Nutraceuticals can be potent, and even interact dangerously with conventional medications (NIH, 2011; Magee, 2007).
- Patients are often misinformed by friends or the Internet and may take nutraceuticals incorrectly.
- Many patients are reluctant to discuss their use of supplements with their therapists or physicians (Niv et al., 2010; Kessler, 2002).

Nutraceuticals do not appear to be helpful for people with severe depression. However, according to research, several types of supplements are effective for mild or moderate depression. (Qureshi & Al-Bedah, 2013; Howland, 2012; Lakhan & Vieira, 2008)

**Who consumes nutraceuticals?**

- **Age**
  - 20-39: 34.2%
  - 40-59: 50.8%
  - >60: 67.4%

- **Race/ethnicity**
  - White American: 53.8%
  - African American: 37.8%
  - Hispanic American: 33.3%

- **Income**
  - Low: 36.6%
  - Moderate: 46.9%
  - High: 58.9%

Many other countries (Canada, Germany, China) regulate supplements more strictly than the United States.
psychosis rarely suffered from *epilepsy* (*brain seizure disorder*) and that people with epilepsy rarely were psychotic, and so concluded that brain seizures or convulsions somehow prevented psychosis. We now know that the observed correlation between seizures and lack of psychotic symptoms does not necessarily imply that one causes the other. Nevertheless, swayed by faulty logic, clinicians in the 1930s searched for ways to induce seizures as a treatment for patients with psychosis.

A Hungarian physician named Joseph von Meduna gave the drug *metrazol* to patients suffering from psychosis, and a Viennese physician named Manfred Sakel gave them large doses of insulin (*insulin coma therapy*). These procedures produced the desired brain seizures, but each was quite dangerous and sometimes even caused death. Finally, an Italian psychiatrist named Ugo Cerletti discovered that he could produce seizures more safely by applying electric currents to a patient’s head, and he and his colleague Lucio Bini soon developed ECT as a treatment for psychosis (Cerletti & Bini, 1938). As you might expect, much uncertainty and confusion accompanied their first clinical application of ECT. Did experimenters have the right to impose such an untested treatment against a patient’s will?

ECT soon became popular and was tried out on a wide range of psychological problems, as new techniques so often are. Its effectiveness with severe depression in particular became apparent. Ironically, however, doubts were soon raised concerning its usefulness for psychosis, and many researchers have since judged it ineffective for psychotic disorders, except for cases that also include severe depressive symptoms (Freudenreich & Goff, 2011; Taube-Schiff & Lau, 2008).

**CHANGES IN ECT PROCEDURES** Although Cerletti gained international fame for his procedure, eventually he abandoned ECT and spent his later years seeking other
treatments for mental disorders (Karon, 1985). The reason: he abhorred the broken bones and dislocations of the jaw or shoulders that sometimes resulted from ECT’s severe convulsions, as well as the memory loss, confusion, and brain damage that the seizures could cause. Other clinicians have stayed with the procedure, however, and have changed it over the years to reduce its undesirable consequences. Today’s practitioners give patients strong muscle relaxants to minimize convulsions, thus eliminating the danger of fractures or dislocations. They also use anesthetics (barbiturates) to put patients to sleep during the procedure, reducing their terror. With these precautions, ECT is medically more complex than it used to be, but also less dangerous and somewhat less disturbing (Lihua et al., 2014; Pfeiffer et al., 2011).

Patients who receive ECT, particularly bilateral ECT, typically have difficulty remembering some events, most often events that took place immediately before and after their treatments (Merkel et al., 2011). In most cases, this memory loss clears up within a few months, but some patients are left with gaps in more distant memory, and this form of amnesia can be permanent (Hanna et al., 2009; Wang, 2007; Squire, 1977). Understandably, these patients may become embittered about the procedure.

**EFFECTIVENESS OF ECT** ECT is clearly effective in treating unipolar depression. Studies find that between 60 and 80 percent of ECT patients improve (Perugi et al., 2011; Loo, 2010). The approach is particularly effective when patients follow up the initial cluster of sessions with continuation therapy—either ongoing antidepressant medications or periodic ECT sessions (Fink et al., 2014). The procedure seems to be particularly effective in severe cases of depression that include delusions (Rothschild, 2010). It has been difficult, however, to determine why ECT works so well (Baldinger et al., 2014; Cassidy et al., 2010). After all, this procedure delivers a broad insult to the brain that activates a number of brain areas, causes neurons all over the brain to fire, and leads to the release of all kinds of neurotransmitters, and it affects many other systems throughout the body as well.

Although ECT is effective and ECT techniques have improved, its use has generally declined since the 1950s. Two reasons for this decline are the memory loss caused by ECT and the frightening nature of the procedure (Fink, Kellner, & McCall, 2014). Another is the emergence of effective antidepressant drugs.

**Antidepressant Drugs** Two kinds of drugs discovered in the 1950s reduce the symptoms of depression: monoamine oxidase (MAO) inhibitors and tricyclics. These drugs have now been joined by a third group, the so-called second-generation antidepressants (see Table 8-2).

**MAO INHIBITORS** The effectiveness of MAO inhibitors as a treatment for unipolar depression was discovered accidentally. Physicians noted that iproniazid, a drug being tested on patients with tuberculosis, had an interesting effect: it seemed to make the patients happier (Sandler, 1990). It was found to have the same effect on depressed patients (Kline, 1958; Loomer, Saunders, & Kline, 1957). What this and several related drugs had in common biochemically was that they slowed the body’s production of the enzyme monoamine oxidase (MAO). Thus they were called MAO inhibitors.

Normally, brain supplies of the enzyme MAO break down, or degrade, the neurotransmitter norepinephrine. MAO inhibitors block MAO from carrying out this activity and thereby stop the destruction of norepinephrine. The result is a rise in norepinephrine...
activity and, in turn, a reduction of depressive symptoms. Approximately half of depressed patients who take MAO inhibitors are helped by them (Ciraulo, Shader, & Greenblatt, 2011; Thase, Trivedi, & Rush, 1995). There is, however, a potential danger with regard to these drugs. When people who take MAO inhibitors eat foods containing the chemical tyramine—including such common foods as cheeses, bananas, and certain wines—their blood pressure rises dangerously. Thus people on these drugs must stick to a rigid diet. In recent years, a new MAO inhibitor has become available in the form of a skin patch that allows for slow, continuous absorption of the drug into the client’s body (Advokat et al., 2014; VanDenBerg, 2012). Because the doses absorbed across the skin are low, dangerous food interactions do not appear to be as common with this kind of MAO inhibitor.

**TRICYCLICS** The discovery of tricyclics in the 1950s was also accidental. Researchers who were looking for a new drug to combat schizophrenia ran some tests on a drug called imipramine (Kuhn, 1958). They discovered that imipramine was of no help in cases of schizophrenia, but it did relieve unipolar depression in many people. The new drug (trade name Tofranil) and related ones became known as tricyclic antidepressants because they all share a three-ring molecular structure.

In hundreds of studies, depressed patients taking tricyclics have improved much more than similar patients taking placebos, although the drugs must be taken for at least 10 days before such improvements take hold (Advokat et al., 2014). About 65 percent of patients who take tricyclics are helped by them (FDA, 2014).

If depressed people stop taking tricyclics immediately after obtaining relief, they run a high risk of relapsing within a year. If, however, they continue taking the drugs for five months or more after being free of depressive symptoms—“continuation therapy”—their chances of relapse decrease considerably (FDA, 2013; Kim et al., 2011; Ballas, Benton, & Evans, 2010). Certain studies further suggest that patients who take these antidepressant drugs for three or more years after initial improvement—a practice called “maintenance therapy”—may reduce the risk of relapse even more. As a result, clinicians often keep patients on the antidepressant drugs indefinitely.

Most researchers have concluded that tricyclics reduce depression by acting on neurotransmitter “reuptake” mechanisms (Ciraulo et al., 2011). Remember from Chapter 3 that messages are carried from the “sending” neuron across the synaptic space to a receiving neuron by a neurotransmitter, a chemical released from the axon ending of the sending neuron. However, there is a complication in this process. While the sending neuron releases the neurotransmitter, a pumplike mechanism in the neuron’s ending immediately starts to reabsorb it in a process called reuptake. The purpose of this reuptake process is to control how long the neurotransmitter remains in the synaptic space and to prevent it from overstimulating the receiving neuron. Unfortunately, reuptake does not always progress properly. The reuptake mechanism may be too efficient in some people—cutting off norepinephrine or serotonin activity too soon, preventing messages from reaching the receiving neurons, and producing clinical depression. Tricyclics block this reuptake process, allowing neurotransmitters to remain in the synapse longer, and thus increasing their stimulation of the receiving neurons (see Figure 8–3 on the next page).

If tricyclics act immediately to increase norepinephrine and serotonin activity, why do the symptoms of depression continue for 10 or more days after drug therapy begins? Growing evidence suggests that when tricyclics are ingested, they initially slow down the activity of the neurons that use norepinephrine and serotonin (Ciraulo et al., 2011; Lambert & Kinsley, 2010). Granted, the reuptake mechanisms of these cells are immediately corrected, thus allowing more efficient transmission of the neurotransmitters, but the neurons themselves respond to the change by releasing smaller amounts of the neurotransmitters. After a week or two, the neurons

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### Table 8–2

<table>
<thead>
<tr>
<th>Class/ Generic Name</th>
<th>Trade Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monoamine oxidase inhibitors</strong></td>
<td></td>
</tr>
<tr>
<td>Isocarboxazid</td>
<td>Marplan</td>
</tr>
<tr>
<td>Phenelzine</td>
<td>Nardil</td>
</tr>
<tr>
<td>Tranylcypromine</td>
<td>Parnate</td>
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<tr>
<td>Selegiline</td>
<td>Eldepryl</td>
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<tr>
<td><strong>Tricyclics</strong></td>
<td></td>
</tr>
<tr>
<td>Imipramine</td>
<td>Tofranil</td>
</tr>
<tr>
<td>Amitriptyline</td>
<td>Elavil</td>
</tr>
<tr>
<td>Doxepin</td>
<td>Sinequan; Silenor</td>
</tr>
<tr>
<td>Trimipramine</td>
<td>Surmontil</td>
</tr>
<tr>
<td>Desipramine</td>
<td>Norpramin</td>
</tr>
<tr>
<td>Nortriptyline</td>
<td>Aventil; Pamelor</td>
</tr>
<tr>
<td>Protriptyline</td>
<td>Vivactil</td>
</tr>
<tr>
<td>Clomipramine</td>
<td>Anafranil</td>
</tr>
<tr>
<td><strong>Second-Generation Antidepressants</strong></td>
<td></td>
</tr>
<tr>
<td>Vilazodone</td>
<td>Viibryd</td>
</tr>
<tr>
<td>Maprotiline</td>
<td>Ludiomil</td>
</tr>
<tr>
<td>Amoxapine</td>
<td>Asendin</td>
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<tr>
<td>Trazodone</td>
<td>Desyrel</td>
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<tr>
<td>Fluoxetine</td>
<td>Prozac</td>
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<td>Sertraline</td>
<td>Zoloft</td>
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<td>Paroxetine</td>
<td>Paxil</td>
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<td>Venlafaxine</td>
<td>Effexor</td>
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<tr>
<td>Fluvoxamine</td>
<td>Luvox</td>
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<tr>
<td>Neefazodone</td>
<td>Serzone</td>
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<tr>
<td>Bupropion</td>
<td>Wellbutrin, Aplenzin</td>
</tr>
<tr>
<td>Mirtazapine</td>
<td>Remeron</td>
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<tr>
<td>Citalopram</td>
<td>Celexa</td>
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<tr>
<td>Escitalopram</td>
<td>Lexapro</td>
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<tr>
<td>Duloxetine</td>
<td>Cymbalta</td>
</tr>
<tr>
<td>Viloxazine</td>
<td>Vivanal</td>
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<tr>
<td>Desvenlafaxine</td>
<td>Pristiq</td>
</tr>
</tbody>
</table>

(Information from: Advokat, et al., 2014)
finally adapt to the tricyclic drugs and go back to releasing normal amounts of the neurotransmitters. Now the corrections in the reuptake mechanisms begin to have the desired effect: the neurotransmitters reach the receiving neurons in greater numbers, hence triggering more neural firing and producing a decrease in depression.

Soon after tricyclics were discovered, they started being prescribed more often than MAO inhibitors. Tricyclics did not require dietary restrictions as MAO inhibitors did, and people taking them typically showed higher rates of improvement than those taking MAO inhibitors. On the other hand, some people respond better to MAO inhibitors than to either tricyclics or the new antidepressants described next, and such people continue to be given MAO inhibitors (Advokat et al., 2014; Thase, 2006).

SECOND-GENERATION ANTIDEPRESSANTS A third group of effective antidepressant drugs, structurally different from the MAO inhibitors and tricyclics, has been developed during the past few decades. Most of these second-generation antidepressants are called selective serotonin reuptake inhibitors (SSRIs) because they increase serotonin activity specifically, without affecting norepinephrine or other neurotransmitters. The SSRIs include fluoxetine (trade name Prozac), sertraline (Zoloft), and escitalopram (Lexapro). More recently developed selective norepinephrine reuptake inhibitors, such as atomoxetine (Strattera), which increase norepinephrine activity only, and serotonin-norepinephrine reuptake inhibitors, such as venlafaxine (Effexor), which increase both serotonin and norepinephrine activity, are also now available (Advokat et al., 2014; Stahl, 2014; Ciraulo et al., 2011).

In effectiveness and speed of action, the second-generation antidepressant drugs are about on a par with the tricyclics, yet their sales have skyrocketed. Clinicians often prefer the new antidepressants because it is harder to overdose on them than on the other antidepressants. In addition, they do not pose the dietary problems

If antidepressant drugs are effective, why do many people seek out herbal supplements, such as Saint-John’s-wort or melatonin, for depression?
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of the MAO inhibitors or produce some of the unpleasant effects of the tricyclics, such as dry mouth and constipation. At the same time, the new antidepressants can produce undesirable side effects of their own. Some people gain weight or have a reduced sex drive, for example (Advokat et al., 2014; Stahl, 2014; Taube-Schiff & Lau, 2008). Decisions about which kinds of antidepressants are prescribed for patients can also be influenced by other factors, such as insurance coverage or financial means (see PsychWatch above).

People who have been helped by the antidepressants readily sing their praises. Consider, for example, the following comments, offered in a recent survey of antidepressant users:

“Going on Prozac was literally going from black and white to color.”

“The psychiatrist put me on an SSRI. And it really helped. Within a couple weeks I felt like I was me again, and I hadn’t been me for a long time.”

 “[Zoloft] helps me not feel despair. I guess that’s kind of vague, but when despair actually feels tangible, then there’s nothing vague about it.”

“Within a few weeks [of starting Prozac], I felt a really big difference. You know, life was still filled with problems. But suddenly it was just, they were problems, not this overbearing force.”

“I started taking Lexapro, and within a week, I felt like a human being again. I could feel something changing inside of me. I could feel this different kind of light, this support, this capability that I didn’t have before. It was very supportive. It was kind of like someone was holding my hand the entire time.”

(Sharpe, 2012)
As popular as the antidepressants are, it is important to recognize that they do not work for everyone. In fact, as you have read, even the most successful of them fails to help at least 35 percent of clients with depression. In fact, some recent reviews have raised the possibility that the failure rate is higher still, especially for people with mild or modest levels of depression (Hegerl et al., 2012; Isacsson & Alder, 2012). How are clients who do not respond to antidepressant drugs treated currently? Researchers have noted that, all too often, their psychiatrists or family physicians simply prescribe alternative antidepressants or antidepressant mixtures—one after another—without directing the clients to psychotherapy or counseling of some kind. Melissa, a depressed woman for whom psychotropic drug treatment has failed to work over many years, reflects on this issue:

“She spoke, in a wistful manner, of how she wished her treatment could have been different. “I do wonder what might have happened if [at age 16] I could have just talked to someone, and they could have helped me learn about what I could do on my own to be a healthy person. I never had a role model for that. They could have helped me with my eating problems, and my diet and exercise, and helped me learn how to take care of myself. Instead, it was you have this problem with your neurotransmitters, and so here, take this pill Zoloft, and when that didn’t work, it was take this pill Prozac, and when that didn’t work, it was take this pill Effexor, and then when I started having trouble sleeping, it was take this sleeping pill,” she says, her voice sounding more wistful than ever. “I am so tired of the pills.”

(Whitaker, 2010)

Brain Stimulation In recent years, three additional biological approaches have been developed for the treatment of depressive disorders—vagus nerve stimulation, transcranial magnetic stimulation, and deep brain stimulation.

VAGUS NERVE STIMULATION The vagus nerve, the longest nerve in the human body, runs from the brain stem through the neck down the chest and on to the abdomen, serving as a primary channel of communication between the brain and major organs such as the heart, lungs, and intestines.

A number of years ago, a group of depression researchers surmised that they might be able to stimulate the brain by electrically stimulating the vagus nerve. They were hoping to mimic the positive effects of ECT without producing the undesired effects or trauma associated with ECT. Their efforts gave birth to a new treatment for depression—vagus nerve stimulation.

In this procedure, a surgeon implants a small device called a pulse generator under the skin of the chest. The surgeon then guides a wire, which extends from the pulse generator, up to the neck and attaches it to the vagus nerve (see Figure 8–4). Electrical signals travel from the pulse generator through the wire to the vagus nerve. The stimulated vagus nerve then delivers electrical signals to the brain. The pulse generator, which runs on battery power, is typically programmed to stimulate the vagus nerve (and, in turn, the brain) every five minutes for a period of 30 seconds.

In 2005, the U.S. Food and Drug Administration (FDA) approved vagus nerve stimulation for long-term, recurrent, and/or severe depression and for cases of...
depression that have not improved even after the use of at least four other treatments. The reason for this approval? Ever since vagus nerve stimulation was first tried on depressed human beings in 1998, research has found that the procedure brings significant relief. Indeed, in studies of severely depressed people who have not responded to any other form of treatment, as many as 40 percent improve significantly when treated with vagus nerve stimulation (Berry et al., 2013; Christmas et al., 2013; Howland et al., 2011).

As with ECT, researchers do not yet know precisely why vagus nerve stimulation reduces depression. After all, like ECT, the procedure activates neurotransmitters and areas all over the brain. This includes, but is not limited to, serotonin and norepinephrine and the brain areas that have been implicated in depression (Kosel et al., 2011).

**TRANSCRANIAL MAGNETIC STIMULATION** Transcranial magnetic stimulation (TMS) is another technique that is being used to try to stimulate the brain without subjecting depressed patients to the undesired effects or trauma of ECT. In this procedure, first developed in 1985, the clinician places an electromagnetic coil on or above the patient’s head. The coil sends a current into the prefrontal cortex. As you’ll remember from the previous chapter, at least some parts of the prefrontal cortex of depressed people are underactive; TMS appears to increase neuron activity in those regions.

TMS has been tested by researchers on a range of disorders, including depression. A number of studies have found that the procedure reduces depression when it is administered daily for two to four weeks (Fitzgerald & Daskalakis, 2012; Fox et al., 2012; Rosenberg et al., 2011). Moreover, according to a few investigations, TMS may be just as helpful as ECT when it is administered to severely depressed people who have been unresponsive to other forms of treatment (Mantovani et al., 2012; Rasmussen, 2011). In 2008, TMS was approved by the FDA as a treatment for major depressive disorder.

**DEEP BRAIN STIMULATION** As you read in the previous chapter, researchers have recently linked depression to high activity in Brodmann Area 25, a brain area located just below the cingulate cortex, and some suspect that this area may be a kind of
“depression switch.” This finding led neurologist Helen Mayberg and her colleagues (2005) to administer an experimental treatment called deep brain stimulation (DBS) to six severely depressed patients who had previously been unresponsive to all other forms of treatment, including electroconvulsive therapy.

Mayberg’s approach was modeled after deep brain stimulation techniques that had been used successfully in cases of brain seizure disorder and Parkinson’s disease, both of which are related to overly active brain areas. For depression, the Mayberg team drilled two tiny holes into the patient’s skull and implanted electrodes in Area 25. The electrodes were connected to a battery, or “pacemaker,” that was implanted in the patient’s chest (for men) or stomach (for women). The pacemaker powered the electrodes, sending a steady stream of low-voltage electricity to Area 25. Mayberg’s expectation was that this repeated stimulation would reduce Area 25 activity to a normal level and “recalibrate” and regulate the depression brain circuit.

In the initial study of DBS, four of the six severely depressed patients became almost depression-free within a matter of months (Mayberg et al., 2005). Subsequent research with other severely depressed individuals has also yielded promising findings (Berlim et al., 2014; Taghva, Malone, & Rezai, 2013; Hamani et al., 2011). In addition to significant mood improvements, patients undergoing the procedure have reported improvements in their short-term memory and quality of life.

Understandably, all of this has produced considerable enthusiasm in the clinical field. Nevertheless, it is important to recognize that research on DBS is in its earliest stages. Investigators have yet to run properly controlled studies of the procedure using larger numbers of research participants, to determine its long-term safety, or to fully clarify its undesired effects. We must remember that in the past, certain promising brain interventions for psychological disorders, such as the lobotomy, later proved problematic or even dangerous upon closer inspection.

How Do the Treatments for Unipolar Depression Compare?

For most kinds of psychological disorders, no more than one or two treatments or combinations of treatments, if any, emerge as highly successful. Unipolar depression seems to be an exception. One of the most treatable of all abnormal patterns, it may respond to any of several approaches. During the past 20 years, researchers have conducted a number of treatment outcome studies, which have revealed some important trends:

1. Cognitive, cognitive-behavioral, interpersonal, and biological therapies are all highly effective treatments for unipolar depression, from mild to severe (Mrazek et al., 2014; Hollon & Ponniah, 2010; Rehm, 2010). In most head-to-head comparisons, they seem to be equally effective at reducing depressive symptoms; however, there are indications that some populations of depressed patients respond better to one therapy than to another. In a pioneering 6-year study of this issue, experimenters separated 239 moderately and severely depressed people into four treatment groups (Elkin, 1994; Elkin et al., 1989, 1985). One group was treated with 16 weeks of Beck’s cognitive therapy, another with 16 weeks of interpersonal psychotherapy, and a third with the tricyclic drug imipramine. The fourth group received a placebo. A total of 28 therapists conducted these treatments.

Using a depression assessment instrument called the Hamilton Rating Scale for Depression, the investigators found that each of the three therapies almost completely eliminated depressive symptoms in 50 to 60 percent of the participants who completed treatment. Only 29 percent of those who received the placebo showed such improvement. This trend also held,
although somewhat less powerfully, when other assessment measures were used. These findings are consistent with those of most other comparative outcome studies.

The study found that drug therapy reduced depressive symptoms more quickly than the cognitive and interpersonal therapies did, but these psychotherapies had matched the drugs in effectiveness by the final 4 weeks of treatment. In addition, more recent studies suggest that cognitive and cognitive-behavioral therapy may be more effective than drug therapy at preventing recurrences of depression except when drug therapy is continued for an extended period of time (Hollon & Ponniah, 2010). Despite the comparable or even superior showing of cognitive and cognitive-behavioral therapies, in the past few decades there has been a significant increase in the number of prescriptions written for antidepressants: from 2.5 million in 1980 to 4.7 million in 1990 to 254 million today (NIMH, 2011; Horwitz & Wakefield, 2007; Koerner, 2007).

2. Although the cognitive, cognitive-behavioral, and interpersonal therapies may lower the likelihood of relapse, they are hardly relapse-proof. Some studies suggest that as many as 30 percent of the depressed patients who respond to these approaches may, in fact, relapse within a few years after the completion of treatment. In an effort to head off relapse, some of today’s cognitive, cognitive-behavioral, and interpersonal therapists continue to offer treatment, perhaps on a less frequent basis and sometimes in group or classroom formats, after the depression lifts—an approach similar to the “continuation” or “maintenance” approaches used with ECT and antidepressant drugs. Early indications are that treatment extensions of this kind do in fact reduce the rate of relapse among successfully treated patients (Bockting, Spinhoven, & Huibers, 2010; Hollon & Ponniah, 2010). In fact, some research suggests that people who have recovered from depression are less likely to relapse if they receive continuation or maintenance therapy in either drug or psychotherapy form, irrespective of which kind of therapy they originally received (Flynn & Himle, 2011).

3. When people with unipolar depression have significant discord in their marital relationships, couple therapy tends to be as helpful as cognitive, cognitive-behavioral, interpersonal, or drug therapy (Lebow et al., 2012, 2010; Whisman & Schonbrun, 2010).

4. In head-to-head comparisons, depressed people who receive strictly behavioral therapy have shown less improvement than those who receive cognitive, cognitive-behavioral, interpersonal, or biological therapy. Behavioral therapy has, however, proved more effective than placebo treatments or no attention at all (Hollon & Ponniah, 2010; Farmer & Chapman, 2008). Also, as you have seen, behavioral therapy is of less help to people who are severely depressed than to those with mild or moderate depression.

5. Most studies suggest that traditional—long-term—psychodynamic therapies are less effective than these other therapies in treating all levels of unipolar depression (Hollon & Ponniah, 2010; Svatberg & Stiles, 1991). Many psychodynamic clinicians argue, however, that this system of therapy simply does not lend itself to empirical research, and its effectiveness should be judged more by therapists’ reports of individual recovery and progress (Busch et al., 2004).
6. Studies have found that a combination of psychotherapy (usually cognitive, cognitive-behavioral, or interpersonal) and drug therapy is modestly more helpful to depressed people than either treatment alone (Ballas et al., 2010; Rehm, 2010).

7. As you will see in Chapter 17, these various trends do not always carry over to the treatment of depressed children and adolescents. For example, a broad 6-year project called the Treatment for Adolescents with Depression Study (TADS) indicates that a combination of cognitive and drug therapy may be much more helpful to depressed teenagers than either treatment alone (NIMH, 2010; TADS, 2007).

8. Among biological treatments, ECT appears to be somewhat more effective than antidepressant drugs for reducing depression. ECT also acts more quickly. Half of patients treated by either intervention, however, relapse within a year unless the initial treatment is followed up by continuing drug treatment or by psychotherapy (Fink, 2014, 2007, 2001; Trevino et al., 2010). In addition, the new brain stimulation treatments

“Ask Your Doctor If This Medication Is Right for You”

Maybe you are suffering from depression. “Ask your doctor about Cymbalta.” “There is no need to suffer any longer.” Anyone who watches television or surfs the Internet is familiar with phrases such as these. They are at the heart of direct-to-consumer (DTC) drug advertising—advertisements in which pharmaceutical companies appeal directly to consumers, coaxing them to ask their physicians to prescribe particular drugs for them. DTC drug ads on television are so commonplace that it is easy to forget they have been a major part of our viewing pleasure for only a short while (Ventola, 2011; Koerner, 2007). It was not until 1997, when the FDA relaxed the rules of pharmaceutical advertising, that these ads really took off.

Antidepressants are among the leading drugs to receive DTC television advertising, along with oral antihistamines, cholesterol reducers, and anti-ulcer drugs (Ventola, 2011; Koerner, 2007; Rosenthal et al., 2002). Altogether, pharmaceutical companies now spend around $5 billion a year on American television and (some) online advertising (Ventola, 2011; Iskowitz, 2011; Nielsen, 2010). In fact, 30 percent of adults say they have asked their doctors about specific medications that they saw advertised, and half of these individuals report that their doctors gave them a prescription for the advertised drug (Hausman, 2008; Kaiser Family Foundation, 2001).

How did we get here? Where did this tidal wave of advertising come from? And what’s with those endless “side effects” that are recited so rapidly at the end of each and every commercial? It’s a long story, but here are some of the key plot twists that helped set the stage for the emergence of DTC television drug advertising.

1938: Food, Drug, and Cosmetic Act
Congress passed the Food, Drug, and Cosmetic Act, which gave the FDA jurisdiction over the labels on prescriptions and over-the-counter drugs and over most related forms of drug advertising (Kessler & Pines, 1990).

1962: Kefauver-Harris Drug Amendments
In the spirit of consumer protection, Congress passed a law requiring that all pharmaceutical drugs be proved safe
seem helpful for some severely depressed people who have been repeatedly unresponsive to drug therapy, ECT, or psychotherapy.

When clinicians today choose a biological treatment for mild to severe unipolar depression, they most often prescribe one of the antidepressant drugs. In some cases, clients may actually request specific ones based on recommendations from friends or on ads they have seen (see PsychWatch below). Clinicians are not likely to refer patients for ECT unless the depression is severe and has been unresponsive to drug therapy and psychotherapy (Kellner et al., 2012). ECT appears to be helpful for 50 to 80 percent of the severely depressed patients who do not respond to other interventions (Perugi et al., 2011; APA, 1993). If a depressed person seems to be at high risk for suicide, the person’s clinician sometimes makes the referral for ECT treatment more readily (Fink et al., 2014; Kobeissi et al., 2011; Fink, 2007, 2001). Although ECT clearly has a beneficial effect on suicidal behavior in the short run, studies do not clearly indicate that it has a long-term effect on suicide rates.

1983: First DTC Drug Ad
The first direct-to-consumer drug ad appeared. The FDA then imposed a voluntary moratorium on such ads until it could develop a formal drug ad policy (Pines, 1999).

1985: Lifting the Ban
The FDA lifted the moratorium and allowed DTC drug ads as long as the ads adhered to the physician-directed promotion standards. That is, each consumer-oriented ad also had to include a summary of the drug’s side effects, contraindications, and effectiveness; avoid false advertising; and offer a fair balance in its information about effectiveness and risks (Curtiss, 2002; Ostrove, 2001). Because so much background information was required in each ad, most DTC ads were limited to magazines and ad brochures.

1997: FDA Makes Television-Friendly Changes
Recognizing that its previous guidelines could not readily be applied to brief TV ads, which may run for only 30 seconds, the FDA changed its guidelines for DTC television drug ads. It ruled that DTC television advertisements must simply mention a drug’s important risks and must indicate where consumers can get further information about the drug—often a Web site or phone number. In addition, the ads must recommend that consumers speak with a doctor about the drug (Wilkes et al., 2000).

2004: FDA relaxes some DTC regulations
In 2004, the FDA eliminated the requirement that drug manufacturers must reprint entire prescription information in their ads. Instead a “simplified brief summary” of prescribing practices is sufficient.

Today
Currently, most of the DTC advertising continues to appear on traditional offline media such as television, radio, newspapers, and magazines. There are some DTC ads on digital outlets such as product Web sites and in social media; however, online efforts by pharmaceutical companies are unfolding slowly, largely because FDA guidelines for online DTC advertising are relatively unclear (Ventola, 2011; Donohue et al., 2007). In 2009, the FDA wrote a revision of its DTC regulations, but the revision remains in draft form.
Treatments for Bipolar Disorders

Until the latter part of the twentieth century, people with bipolar disorders were destined to spend their lives on an emotional roller coaster. Psychotherapists reported almost no success, and antidepressant drugs were of limited help. In fact, the drugs sometimes triggered a manic episode (Courtet, Samalin, & Olié, 2011; Post, 2011, 2005). And ECT only occasionally relieved either the depressive or the manic episodes of bipolar disorders.

This gloomy picture changed dramatically in 1970 when the FDA approved the use of lithium, a silvery-white element found in various simple mineral salts throughout the natural world, as a treatment for bipolar disorder. Other mood stabilizing, or antibipolar, drugs have since been developed, and several of them are now used more widely than lithium, either because they produce fewer undesired effects or because they are even more effective than lithium.

Nevertheless, it was lithium that first brought hope to those suffering from bipolar disorder. Recall the praise for lithium offered by psychiatric researcher Kay Redfield Jamison at the beginning of this chapter. Here Jamison describes in more detail her relationship with the drug and the role it has played in her recovery from bipolar disorder:

My war with lithium began not long after I started taking it. I was first prescribed lithium in the fall of 1974; by the early spring of 1975, against medical advice, I had stopped taking it. Once my initial mania had cleared and I had recovered from the terrible depression that followed in its wake, an army of reasons had gathered in my mind to form a strong line of resistance to taking medication. Some of the reasons were psychological in nature. Others were related to the side effects that I experienced from the high blood levels of lithium that were required, at least initially, to keep my illness in check. (In 1974 the standard medical practice was to maintain patients at considerably higher blood levels of lithium than is now the case. I have been taking a lower dose of lithium for many years, and virtually all of the problems I experienced earlier in the course of my treatment have disappeared.) . . .

[In addition], I simply did not want to believe that I needed to take medication. I had become addicted to my high moods; I had become dependent upon their intensity, euphoria, assuredness, and their infectious ability to induce high moods and enthusiasm in other people. Like gamblers who sacrifice everything for the fleeting but ecstatic moments of winning, or cocaine addicts who risk their families, careers, and lives for brief interludes of high energy and mood, I found my milder manic states powerfully inebriating and very conducive to productivity. I couldn’t give them up. . . .

It was not that I ever thought lithium was an ineffective drug. Far from it. The evidence for its efficacy and safety was compelling. Not only that, I knew it worked for me. It certainly was not that I had any moral arguments against psychiatric medications. On the contrary . . . I believe, without doubt, that manic-depressive illness is a medical illness; I also believe that, with rare exception, it is malpractice to treat it without medication. All of these beliefs aside, however, I still somehow thought that I ought to be able to carry on without drugs, that I ought to be able to continue to do things my own way. . . .

Unfortunately, this resistance to taking lithium is played out in the lives of tens of thousands of patients every year. Almost always it leads to a recurrence of the illness; not uncommonly it results in tragedy. . . .

At this point in my existence, I cannot imagine leading a normal life without both taking lithium and having had the benefits of psychotherapy. Lithium prevents my seductive but disastrous highs, diminishes my depressions, clears out the wool.
and webbing from my disordered thinking, slows me down, gentles me out, keeps me from ruining my career and relationships, keeps me out of a hospital, alive, and makes psychotherapy possible. [At the same time], ineffably, psychotherapy heals. It makes some sense of the confusion, reins in the terrifying thoughts and feelings, returns some control and hope and possibility of learning from it all. Pills cannot, do not, ease one back into reality; they only bring one back headlong, careening, and faster than can be endured at times. Psychotherapy is a sanctuary; it is a battleground; . . . it is where I have believed—or have learned to believe—that I might someday be able to contend with all of this. No pill can help me deal with the problem of not wanting to take pills; likewise, no amount of psychotherapy alone can prevent my manias and depressions. I need both. . . .


Lithium and Other Mood Stabilizers

The discovery that lithium effectively reduces bipolar symptoms was, like so many other medical discoveries, quite accidental. In 1949 an Australian psychiatrist, John Cade, hypothesized that manic behavior is caused by a toxic level of uric acid in the body. He set out to test this theory by injecting guinea pigs with uric acid, but first he combined it with lithium to increase its solubility.

To Cade’s surprise, the guinea pigs became not manic but quite lethargic after their injections. Cade suspected that the lithium had produced this effect. When he later administered lithium to 10 human beings who had mania, he discovered that it calmed and normalized their mood. Many countries began using lithium for bipolar disorders soon after, but as noted earlier, it was not until 1970 that the FDA approved it.

Determining the correct lithium dosage for a given patient is a delicate process requiring regular analyses of blood and urine samples and other laboratory tests. Too low a dose will have little or no effect on the bipolar mood swings, but too high a dose can result in lithium intoxication (literally, poisoning), which can cause nausea, vomiting, sluggishness, tremors, dizziness, slurred speech, seizures, kidney dysfunction, and even death. With the correct dose, however, lithium often produces a noticeable change (Geddes & Miklowitz, 2013; Grof, 2010). Some patients respond better to the other mood stabilizing drugs, such as the antiseizure drugs carbamazepine (Tegretol) or valproate (Depakote), or to a combination of such drugs (Selle et al., 2014; Altamura et al., 2011). And still others respond best to a combination of mood stabilizers and atypical antipsychotic drugs, medications that you will read about in Chapter 15 (Selle et al., 2014; Nivoli et al., 2011).

Given the effectiveness of lithium and other mood stabilizers, around one-third of all persons with a bipolar disorder now seek treatment from a mental health professional in any given year. Another 15 percent are treated or monitored by family physicians (NIMH, 2014; Wang et al., 2005).

Effectiveness of Lithium and Other Mood Stabilizers All manner of research has attested to the effectiveness of lithium and other mood stabilizers in treating manic episodes (Geddes & Miklowitz, 2013; Grof, 2010,
More than 60 percent of patients with mania improve on these medications. In addition, most such patients have fewer new episodes as long as they continue taking the medications (Malhi et al., 2013; Gao et al., 2010). One study found that the risk of relapse is 28 times higher if patients stop taking a mood stabilizer (Suppes et al., 1991). These findings suggest that the mood stabilizers are also prophylactic drugs, ones that actually help prevent symptoms from developing. Thus, today’s clinicians usually continue patients on some level of a mood stabilizing drug even after their manic episodes subside (Gao et al., 2010).

In the limited body of research that has been done on this subject, the mood stabilizers also seem to help those with bipolar disorder overcome their depressive episodes, though to a lesser degree than they help with their manic episodes (Malhi et al., 2013; Post, 2011). In addition, continued doses of mood stabilizers may help reduce the risk of future depressive episodes and future suicide attempts, just as they seem to prevent the return of manic episodes (Gao et al., 2010; Carney & Goodwin, 2005). Given the drugs’ less powerful impact on depressive episodes, many clinicians use a combination of mood stabilizers and antidepressant drugs to treat bipolar depression, although research suggests that antidepressants may trigger manic episodes in some cases (Nivoli et al., 2011; Post, 2011; Vazquez et al., 2011).

Mode of Operation of Mood Stabilizers

Researchers do not fully understand how mood stabilizing drugs operate (Malhi et al., 2013; Aiken, 2010). They suspect that the drugs change synaptic activity in neurons, but in a way different from that of antidepressant drugs. The firing of a neuron actually consists of several phases that ensue at lightning speed. When the neurotransmitter binds to a receptor on the receiving neuron, a series of changes occur within the receiving neuron to set the stage for firing. The substances in the neuron that carry out those changes are often called second messengers because they relay the original message from the receptor site to the firing mechanism of the neuron. (The neurotransmitter itself is considered the first messenger.) Whereas antidepressant drugs affect a neuron’s initial reception of neurotransmitters, mood stabilizers appear to affect a neuron’s second messengers (Gawryluk & Young, 2011).

Different second-messenger systems are at work in different neurons. In one of the most important systems, chemicals called phosphoinositides are produced once neurotransmitters are received. Research suggests that lithium, and perhaps the other mood stabilizers as well, affect this particular messenger system (Malhi et al., 2013; Gawryluk & Young, 2011). It may be that these drugs affect the activity of

**Bipolar struggle**

Throughout the 1990s, Grammy-winning Irish singer Sinead O’Connor was known for her shaved head, edgy songs, and rebelliousness. In a 1992 appearance on the TV show *Saturday Night Live*, for example, she ripped up a picture of Pope John Paul II (left) to help bring attention to the problem of sex abuse in the Catholic church. In more recent times (right), she revealed that she has struggled with bipolar disorder, for which she receives treatment.
any neuron that uses this second-messenger system and in so doing correct the biological abnormalities that lead to bipolar disorders.

In a similar vein, it has been found that lithium and other mood stabilizing drugs also increase the production of neuroprotective proteins—key proteins within certain neurons whose job is to prevent cell death. The drugs may increase the health and functioning of those cells and thus reduce bipolar symptoms (Malhi et al., 2013; Gray et al., 2003).

Alternatively, it may be that the mood stabilizers correct bipolar functioning by directly changing sodium and potassium ion activity in neurons (Swonger & Constantine, 1983). In Chapter 7 you read that bipolar disorders may be triggered by unstable alignments of ions along the membranes of certain neurons in the brain. If this instability is the key to bipolar problems, mood stabilizers would be expected to have some kind of effect on the ion activity. Several studies in fact suggest that lithium ions often substitute, although imperfectly, for sodium ions, and other research suggests that lithium changes the transport mechanisms that move ions back and forth across the neural membrane (Lambert & Kinsley, 2010; Soares et al., 1999; Baer et al., 1971).

Adjunctive Psychotherapy

Psychotherapy alone is rarely helpful for persons with bipolar disorders. At the same time, clinicians have learned that mood stabilizing drugs alone are not always sufficient either. Thirty percent or more of patients with these disorders may not respond to lithium or a related drug, may not receive the proper dose, or may relapse while taking it. In addition, a number of patients stop taking mood stabilizers on their own because they are bothered by the drugs’ unwanted effects, feel too well to recognize the need for the drugs, miss the euphoria felt during manic episodes, or worry about becoming less productive when they take the drugs (Advokat et al., 2014; Aiken, 2010).

In view of these problems, many clinicians now use individual, group, or family therapy as an adjunct to mood stabilizing drugs (Reinares et al., 2014; Geddes & Miklowitz, 2013; Lee et al., 2011). Most often, therapists use these formats to emphasize the importance of continuing to take medications; to improve social skills and relationships that may be affected by bipolar episodes; to educate patients and families about bipolar disorders; to help patients solve the family, school, and occupational problems caused by their disorder; and to help prevent patients from attempting suicide (Hollon & Ponniah, 2010). Few controlled studies have tested the effectiveness of such adjunctive therapy, but those that have been done, along with numerous clinical reports, suggest that it helps reduce hospitalization, improves social functioning, and increases patients’ ability to obtain and hold a job (Culver & Pratchett, 2010). Psychotherapy plays a more central role in the treatment of cyclothymic disorder, the mild bipolar pattern that you read about in Chapter 7. In fact, patients with cyclothymic disorder typically receive psychotherapy, alone or in combination with mood stabilizers.

PUTTING IT...together

With Success Come New Questions

Depressive and bipolar disorders are among the most treatable of all psychological disorders. The choice of treatment for bipolar disorders is narrow and simple: drug therapy, perhaps accompanied by psychotherapy, is the single most successful approach. The picture for unipolar depression is more varied and complex, although no less promising. Cognitive, cognitive–behavioral, interpersonal, and antidepressant
drug therapy are all helpful in cases of any severity; couple therapy is helpful in select cases; pure behavioral therapy helps in mild to moderate cases; and ECT is useful and effective in severe cases.

Why are several very different approaches highly effective in the treatment of unipolar depression? Two explanations have been proposed. First, if many factors contribute to unipolar depression, it is plausible that the removal of any one of them could improve all areas of functioning. In fact, studies have sometimes found that when one kind of therapy is effective, clients tend to function better in all spheres. When certain antidepressant drugs are effective, for instance, clients make the same improvements in their thinking and social functioning that cognitive and interpersonal therapy would bring about (Meyer et al., 2003; Weissman, 2000).

A second explanation suggests that there are various kinds of unipolar depression, each of which responds to a different kind of therapy. There is evidence that interpersonal psychotherapy is more helpful in depressions brought on by social problems than in depressions that seem to occur spontaneously (Frank & Levenson, 2011; Weissman & Markowitz, 2002). Similarly, antidepressant medications seem more helpful than other treatments in cases marked by appetite and sleep problems, sudden onset, and a family history of depression (McNeal & Cimbolic, 1986).

Whatever the ultimate explanation, the treatment picture is very promising both for people with unipolar depression and for those with bipolar disorders. The odds are that one or a combination of the therapies now in use will relieve their symptoms. Yet the sobering fact remains that as many as 40 percent of people with a mood disorder do not improve under treatment and must suffer their mania or depression until it has run its course.

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**SUMMING UP**

- **TREATMENTS FOR DEPRESSIVE AND BIPOLAR DISORDERS** More than 60 percent of people with depressive and bipolar disorders can be helped by treatment. pp. 253–254

- **TREATMENTS FOR UNIPOLAR DEPRESSION** Various treatments have been used with unipolar depression. Psychodynamic therapists try to help depressed clients become aware of and work through their real or imagined losses and their excessive dependence on others. Behavioral therapists reintroduce clients to events and activities that they once found pleasurable, reinforce nondepressive behaviors, and teach interpersonal skills. Cognitive therapists help depressed clients identify and change their dysfunctional cognitions, and cognitive-behavioral therapists try to reduce clients’ depression by combining cognitive and behavioral techniques.

  Sociocultural theorists trace unipolar depression to interpersonal, social, and cultural factors. One family-social approach, interpersonal psychotherapy, is based on the premise that depression stems from social problems, and so therapists try to help clients develop insight into their interpersonal problems, change them and the conditions that are causing them, and learn skills to protect themselves in the future. Another family-social...
approach, couple therapy, may be used when depressed people are in a dysfunctional relationship.

Most biological treatments consist of antidepressant drugs, but electroconvulsive therapy (ECT) is still used to treat some severe cases of depression, and several brain stimulation techniques recently have been developed to treat severely depressed patients who are unresponsive to all other forms of treatment. ECT remains a controversial procedure, although it is a fast-acting intervention that is particularly effective when depression is severe, unresponsive to other kinds of treatment, or characterized by delusions. Antidepressant drugs include three classes: MAO inhibitors, tricyclics, and second-generation antidepressants. MAO inhibitors block the degradation of norepinephrine, allowing the levels of this neurotransmitter to build up and relieve depressive symptoms. People taking MAO inhibitors must be careful to avoid eating foods with tyramine. Tricyclics improve depression by blocking neurotransmitter reuptake mechanisms, thereby increasing the activity of norepinephrine and serotonin. The second-generation antidepressants include selective serotonin reuptake inhibitors, or SSRIs, drugs that selectively increase the activity of serotonin. These drugs are as effective as tricyclics and have fewer undesired effects. And, finally, the brain stimulation techniques include vagus nerve stimulation (which has been approved by the FDA for use in cases of depression), transcranial magnetic stimulation, and deep brain stimulation. pp. 254–272

COMPARING TREATMENTS FOR UNIPOLAR DEPRESSION The cognitive, interpersonal, and biological therapies appear to be the most successful for mild to severe depression. Couple therapy is helpful when the individual’s depression is accompanied by significant marital discord. Behavioral therapy is helpful in mild to moderate cases. And ECT and brain stimulation treatments are effective in severe cases. Combinations of psychotherapy and drug therapy tend to be modestly more helpful than any one approach on its own. pp. 272–275

TREATMENTS FOR BIPOLAR DISORDERS Lithium and other mood stabilizing drugs, such as carbamazepine or valproate, have proved to be effective in the treatment of bipolar disorders, particularly in the reduction and prevention of manic episodes. In some cases, these drugs are combined with antidepressant drugs or certain antipsychotic drugs. The various drug treatments are helpful in 60 percent of cases. The mood stabilizers may reduce bipolar symptoms by affecting the activity of second-messenger systems or key proteins or other chemicals in certain neurons throughout the brain. Alternatively, lithium and other mood stabilizers may directly change the activity of sodium and other ions in neurons, for example, by altering the transportation of the ions across neural membranes.

In recent years, clinicians have learned that patients with bipolar disorders may fare better when mood stabilizers are supplemented by adjunctive psychotherapy. The issues most often addressed by psychotherapists are medication management; social skills and relationships: education of patients; and solving the family, school, and occupational problems caused by bipolar episodes. pp. 276–279

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**Publication Bias**

A review of 74 FDA-registered antidepressant drug studies revealed a troubling pattern (Turner et al., 2008). Only 38 of the studies yielded positive findings (the drug was effective), and all but 1 of these studies were published. The other 36 studies yielded findings that were negative or questionable, and 22 of them were not published. This publication bias may make the antidepressant drugs appear more effective than they actually are (Pigott et al., 2010).

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Suicide

The war in Iraq never ended for Jonathan Michael Boucher. Not when he flew home from Baghdad, not when he moved to Saratoga Springs for a fresh start and, especially, not when nighttime arrived. Tortured by what he saw as an 18-year-old Army private during the 2003 invasion and occupation, Boucher was diagnosed with post-traumatic stress disorder (PTSD) and honorably discharged from the military less than two years later.

On May 15, three days before his 24th birthday, the young veteran committed suicide in his apartment's bathroom, stunning friends and family. . . . There was no note. . . . Johnny Boucher joined the Army right after graduating from East Lyme High School in Connecticut in 2002 because he was emotionally moved by the Sept. 11, 2001, terrorist attacks. “He felt it was his duty to do what he could for America,” his father, Steven Boucher, 50, said.

Shortly after enlisting, the 6-foot-2-inch soldier deployed with the “Wolf Pack”—1st Battalion, 41st Field Artillery—and fought his way north in Iraq. He landed with his unit at Baghdad International Airport and was responsible for helping guard it. The battalion earned a Presidential Unit Citation for “exceptional bravery and heroism in the liberation of Baghdad.”

But it was during those early months of the war that Johnny Boucher had the evils of combat etched into his mind. The soldier was devastated by seeing a young Iraqi boy holding his dead father, who had been shot in the head. Later, near the airport, the soldier saw four good friends in his artillery battery killed in a vehicle accident minutes after one of them relieved him from duty, his father said. Boucher tried to rescue the soldiers. Their deaths and other things his son saw deeply impacted his soul after he returned because he was sensitive about family and very patriotic, Steven Boucher said. . . .

But when the sun set, memories of combat and lost friends rose to the top, causing the former artilleryman severe nightmares. Sometimes he would curl up in a ball and weep, causing his parents to try to comfort him. . . . “At nighttime, he was just haunted,” Steven Boucher said. . . . “Haunted, I think, by war.” Bitterness about the war had crept in, and the troubled former soldier started drinking to calm himself. . . . Supported by a huge family he adored . . . Johnny Boucher recently got his own apartment on Franklin Street and appeared to be getting back on track. He seemed to be calm and enjoying life. But it was difficult to tell, and he was still fearful of sleep, his father said. They had plans for a hike, a birthday party and attending his brother Jeffrey's graduation. . . . Then, without warning, Johnny Boucher was gone. He hanged himself next to a Bible, his Army uniform and a garden statue of an angel, said his mother, who discovered him after he failed to show up to work for two days. . . .

Salmon spawn and then die, after an exhausting upstream swim to their breeding ground. Lemmings rush to the sea and drown. But only humans knowingly take their own lives. The actions of salmon and lemmings are instinctual responses that may even help their species survive in the long run. Only in the human act of suicide do beings act for the specific purpose of putting an end to their lives (Preti, 2011).

Suicide has been recorded throughout history. The Old Testament described King Saul's suicide: “There Saul took a sword and fell on it.” The ancient Chinese, Greeks, and Romans also provided examples. In more recent
times, twentieth-century suicides by such celebrated individuals as writer Ernest Hemingway, actress Marilyn Monroe, and rock star Kurt Cobain both shocked and fascinated the public.

Today suicide is one of the leading causes of death in the world. By the time you finish reading this page and the next, someone in the United States will have killed himself or herself (AFSP, 2014). In fact, at least 100 Americans will have taken their own lives by this time tomorrow (AFSP, 2014).

It has been estimated that 1 million people die by suicide each year, more than 38,000 in the United States alone (AFSP, 2014; CDC, 2013) (see Table 9-1). Around 25 million other people throughout the world—as many as 1 million in the United States—make unsuccessful attempts to kill themselves; such attempts are called parasuicides. Actually, it is difficult to obtain accurate figures on suicide, and many investigators believe that estimates are often low. For one thing, suicide can be difficult to distinguish from unintentional drug overdoses, automobile crashes, drownings, and other accidents (Björkenstam et al., 2014; Wertheimer, 2001; Lester, 2000). Many apparent “accidents” are probably intentional. For another, since suicide is frowned on in our society, relatives and friends often refuse to acknowledge that loved ones have taken their own lives.

Suicide is not officially classified as a mental disorder, although DSM-5’s framers have proposed that a category called suicidal behavior disorder be studied for possible inclusion in future revisions of DSM-5. People would qualify for this diagnosis if they have tried to kill themselves within the last two years (APA, 2013). Regardless of whether suicidal acts themselves represent a distinct disorder, psychological dysfunctioning—a breakdown of coping skills, emotional turmoil, a distorted view of life—usually plays a role in such acts. For example, Jonathan Boucher, the young combat veteran about whom you read at the beginning of this chapter, had intense feelings of depression, developed a severe drinking problem, and displayed posttraumatic stress disorder.

### What Is Suicide?

Not every self-inflicted death is a suicide. A man who crashes his car into a tree after falling asleep at the steering wheel is not trying to kill himself. Thus Edwin Shneidman (2005, 1993, 1963), a pioneer in this field, defined suicide as an intentioned death—a self-inflicted death in which one makes an intentional, direct, and conscious effort to end one’s life.

Intentioned deaths may take various forms. Consider the following examples. All three of these people intended to die, but their motives, concerns, and actions differed greatly:

- **parasuicide** A suicide attempt that does not result in death.
- **suicide** A self-inflicted death in which the person acts intentionally, directly, and consciously.

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**Table 9-1**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Deaths Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heart disease</td>
<td>597,689</td>
</tr>
<tr>
<td>2</td>
<td>Cancer</td>
<td>574,743</td>
</tr>
<tr>
<td>3</td>
<td>Chronic respiratory diseases</td>
<td>138,080</td>
</tr>
<tr>
<td>4</td>
<td>Stroke</td>
<td>129,476</td>
</tr>
<tr>
<td>5</td>
<td>Accidents</td>
<td>120,859</td>
</tr>
<tr>
<td>6</td>
<td>Alzheimer’s</td>
<td>83,494</td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td>69,071</td>
</tr>
<tr>
<td>8</td>
<td>Kidney disease</td>
<td>50,476</td>
</tr>
<tr>
<td>9</td>
<td>Pneumonia and influenza</td>
<td>50,097</td>
</tr>
<tr>
<td>10</td>
<td>Suicide</td>
<td>38,364</td>
</tr>
</tbody>
</table>

Information from: CDC, 2013
The experience of failure, loss, and emptiness was overwhelming for Dave. He looked for another position, but found only low-paying jobs for which he was overqualified. Each day as he looked for work Dave became more depressed, anxious, and desperate. He thought of trying to start his own investment company or to be a consultant of some kind, but in the cold of night, he knew he was just fooling himself with such notions. He kept sinking, withdrew from others, and felt increasingly hopeless.

Six months after losing his job, Dave began to consider ending his life. The pain was too great, the humiliation unending. He hated the present and dreaded the future. Throughout February he went back and forth. On some days he was sure he wanted to die. On other days, an enjoyable evening or uplifting conversation might change his mind temporarily. On a Monday late in February he heard about a job possibility, and the anticipation of the next day’s interview seemed to lift his spirits. But Tuesday’s interview did not go well. He knew there’d be no job offer. He went home, took a recently purchased gun from his locked desk drawer, and shot himself.

Demaine never truly recovered from his mother’s death. He was only seven years old and unprepared for such a loss. His father sent him to live with his grandparents for a time, to a new school with new kids and a new way of life. In Demaine’s mind, all these changes were for the worse. He missed the joy and laughter of the past. He missed his home, his father, and his friends. Most of all he missed his mother.

He did not really understand her death. His father said that she was in heaven now, at peace, happy. Demaine’s unhappiness and loneliness continued day after day and he began to put things together in his own way. He believed he would be happy again if he could join his mother. He felt she was waiting for him, calling for him to come to her. The thoughts seemed so right to him; they brought him comfort and hope. One evening, shortly after saying good night to his grandparents, Demaine climbed out of bed, went up the stairs to the roof of their apartment house, and jumped to his death. In his mind he was joining his mother in heaven.

Tya and Noah had met on a speed date. On a lark, Tya and a friend had registered at the speed date event, figuring, “What’s the worst thing that can happen?” On the night of the big event, Tya talked to dozens of guys, none of whom appealed to her—except for Noah! He was quirky. He was witty. And he seemed as turned off by the whole speed date thing as she was. His was the only name that she put on her list. As it turned out, he also put her name down on his list, and a week later each of them received an email with contact information about the other. A flurry of email exchanges followed, and before long, they were going together. She marveled at her luck. She had beaten the odds. She had had a successful speed date experience.

It was Tya’s first serious relationship; it became her whole life. Thus she was truly shocked and devastated when, on the one-year anniversary of their speed date, Noah told her that he no longer loved her and was leaving her for someone else.

As the weeks went by, Tya was filled with two competing feelings—depression and anger. Several times she texted or called Noah, begged him to reconsider, and pleaded for a chance to win him back. At the same time, she hated him for putting her through such misery.

Tya’s friends became more and more worried about her. At first they sympathized with her pain, assuming it would soon lift. But as time went on, her depression and anger worsened, and Tya began to act strangely. Always a bit of a drinker, she started to drink heavily and to mix her drinks with various kinds of drugs.

One night Tya went into her bathroom, reached for a bottle of sleeping pills, and swallowed a handful of them. She wanted to make her pain go away, and she wanted Noah to know just how much pain he had caused her. She continued swallowing pill after pill, crying and swearing as she gulped them down. When she began to feel drowsy, she decided to call her close friend Dedra. She was not sure
why she was calling, perhaps to say good-bye, to explain her actions, or to make
sure that Noah was told; or perhaps to be talked out of it. Dedra pleaded and
reasoned with her and tried to motivate her to live. Tya was trying to listen, but
she became less and less coherent. Dedra hung up the phone and quickly called
Tya's neighbor and the police. When reached by her neighbor, Tya was already in a
coma. Seven hours later, while her friends and family waited for news in the hospital
lounge, Tya died.

While Tya seemed to have mixed feelings
about her death, Dave was clear in his wish to
die. Whereas Demaine viewed death as a trip
to heaven, Dave saw it as an end to his exis-
tence. Such differences can be important in ef-
torts to understand and treat suicidal persons.
Accordingly, Shneidman distinguished four
kinds of people who intentionally end their lives: the death seeker, death initiator,
death ignorer, and death darer.

Death seekers clearly intend to end their lives at the time they attempt suicide.
This singleness of purpose may last only a short time. It can change to confusion
the very next hour or day, and then return again in short order. Dave, the middle-
aged investment counselor, was a death seeker. He had many misgivings about
suicide and was ambivalent about it for weeks, but on Tuesday night he was a death
seeker—clear in his desire to die and acting in a manner that virtually guaranteed
a fatal outcome.

Death initiators also clearly intend to end their lives, but they act out of a
belief that the process of death is already under way and that they are simply has-
tening the process. Some expect that they will die in a matter of days or weeks.
Many suicides among the elderly and very sick fall into this category. Robust
novelist Ernest Hemingway was profoundly concerned about his failing body as he
approached his sixty-second birthday—a concern that some observers believe was
at the center of his suicide.

Death ignorers do not believe that their self-inflicted death will mean the end
of their existence. They believe they are trading their present lives for a
better or happier existence. Many child suicides, like Demaine’s, fall into
this category, as do those of adult believers in a hereafter who commit
suicide to reach another form of life. In 1997, for example, the world was
shocked to learn that 39 members of an unusual cult named Heaven’s Gate
had committed suicide at an expensive house outside San Diego. It turned
out that these members had acted out of the belief that their deaths would
free their spirits and enable them to ascend to a “higher kingdom.”

Death darers experience mixed feelings, or ambivalence, about their
intent to die, even at the moment of their attempt, and they show this
ambivalence in the act itself. Although to some degree they wish to die,
and they often do die, their risk-taking behavior does not guarantee death.
The person who plays Russian roulette—that is, pulls the trigger of a
revolver randomly loaded with one bullet—is a death darer. Tya might be
considered a death darer. Although her unhappiness and anger were great,
she was not sure that she wanted to die. Even while taking pills, she called
her friend, reported her actions, and listened to her friend’s pleas.

When people play indirect, covert, partial, or unconscious roles in their

Death darers?
A sky surfer tries to ride the perfect cloud, high
above the hustle and bustle of the city below.
Are thrill seekers daredevils searching for new
highs, as many of them claim, or are some
actually death darers?
category called **subintentional deaths**. Traditionally, clinicians have cited drug, alcohol, or tobacco use, promiscuous sexual behavior, recurrent physical fighting, and medication mismanagement as behaviors that may contribute to subintentional deaths. Obviously, these kinds of behaviors are dangerous in their own right. Moreover, researchers have found a correlation between regularly engaging in such behaviors and later attempts at suicide (Juan et al., 2011).

In recent years, another behavioral pattern, self-injury or self-mutilation, has been added to this list—for example, cutting or burning oneself or banging one’s head. Although this pattern is not officially classified as a mental disorder, the framers of DSM-5 have proposed that a category called **nonsuicidal self-injury** be studied for possible inclusion in future revisions of DSM-5. People would qualify for this diagnosis if they intentionally injure themselves on five or more occasions over a one-year period, without the conscious intent of killing themselves (APA, 2013).

Self-injurious behavior is more common than previously recognized, particularly among teenagers and young adults, and it may be on the increase (Rodav, Levy, & Hamdan, 2014). Although the pattern is not well understood, it appears that the behavior becomes addictive in nature. The pain brought on by self-injury seems to offer some relief from emotional suffering, the behavior serves as a temporary distraction from problems, and the scars that result may document the person’s distress (Wilkinson & Goodyer, 2011). More generally, self-injury may help a person deal with chronic feelings of emptiness, boredom, and identity confusion. Although self-injury and the other risky behaviors mentioned earlier may indeed represent an indirect attempt at suicide (Victor & Klonsky, 2014), the true intent behind them is unclear, so, other than the MediaSpeak on the next page, these behaviors are not included in the discussions of this chapter.

**How Is Suicide Studied?**

Suicide researchers face a major obstacle: the people they study are no longer alive. How can investigators draw accurate conclusions about the intentions, feelings, and circumstances of those who can no longer explain their actions? Two research methods attempt to deal with this problem, each with only partial success.

One strategy is **retrospective analysis**, a kind of psychological autopsy in which clinicians and researchers piece together data from the suicide victim’s past (Schwartz, 2011; Wetzel & Murphy, 2005). Relatives, friends, therapists, or physicians may remember past statements, conversations, and behaviors that shed light on a suicide. Retrospective information may also be provided by the suicide notes that some victims leave behind (Wong et al., 2009).

However, such sources of information are not always available or reliable. Around half of all suicide victims have never been in psychotherapy (Stolberg et al., 2002), and less than one-third leave notes (Maris, 2001). Nor is retrospective information necessarily valid. A grieving, perhaps guilt-ridden relative or a distraught therapist may be incapable of objective recollections or simply reluctant to discuss an act that is so stigmatizing in our society (Kelleher & Campbell, 2011; Wurst et al., 2011).

Because of these limitations, many researchers also use a second strategy—**studying people who survive their suicide attempts**. It is estimated that there are 12 nonfatal suicide attempts for every fatal suicide (AFSP, 2014). However, it may be that people who survive suicide attempts differ in important ways from those who do not. Many of them may not really have wanted to die, for example. Nevertheless, suicide researchers have found it useful to study survivors of suicide attempts, and this chapter shall consider those who attempt suicide and those who commit suicide as more or less alike.
Patterns and Statistics

Suicide happens within a larger social setting, and researchers have gathered many statistics regarding the social contexts in which such deaths take place. They have found, for example, that suicide rates vary from country to country (Kirkcaldy et al., 2010). South Korea, Russia, Hungary, Germany, Austria, Finland, Denmark, China, and Japan have very high rates—more than 20 suicides annually per 100,000
Suicide rates vary significantly across countries. For example, the United States and Canada have a suicide rate of 12.1 per 100,000 persons; conversely, Egypt, Mexico, Greece, and Spain have relatively low rates, fewer than 5 per 100,000. England has a rate of 9 per 100,000 (AFSP, 2014; CDC, 2013).

Religious affiliation and beliefs may help account for these national differences (Foo et al., 2014). For example, countries that are largely Catholic, Jewish, or Muslim tend to have low suicide rates. Perhaps in these countries, strict prohibitions against suicide or a strong religious tradition deter many people from committing suicide (Stack & Kposowa, 2008). Yet there are exceptions to this tentative rule. Austria, a largely Roman Catholic country, has one of the highest suicide rates in the world.

Research is beginning to suggest that religious doctrine may not help prevent suicide as much as the degree of an individual’s devoutness. Regardless of their particular persuasion, very religious people seem less likely to commit suicide. Perhaps in these countries, strict prohibitions against suicide or a strong religious tradition deter many people from committing suicide (Cook, 2014; Güngörmiş, Tanriverdi, & Gündoğan, 2014; Stack & Kposowa, 2008). Similarly, it seems that people who have a greater reverence for life are less prone to consider or attempt self-destruction (Lee, 1985).

The suicide rates of men and women also differ. Three times as many women attempt suicide as men, yet men succeed at more than four times the rate of women (AFSP, 2014; CDC, 2013). Around the world 19 of every 100,000 men kill themselves each year; the suicide rate for women is 4 per 100,000 (Levi et al., 2003).

Although various explanations have been proposed for this gender difference (Fiori et al., 2011), a popular one points to the different methods used by men and women (Stack & Wasserman, 2009). Men tend to use more violent methods, such as shooting, stabbing, or hanging themselves, whereas women use less violent methods, such as drug overdose. Guns are used in 56 percent of the male suicides in the United States, compared with 31 percent of the female suicides (CDC, 2014).

Suicide is also related to social environment and marital status (You, Van Orden, & Conner, 2011). In one study, around half of the individuals who had committed suicide were found to have no close personal friends (Maris, 2001), although they may be active on Internet and social networks. Fewer still had close relationships with parents and other family members. In a related vein, research has revealed that divorced persons have a higher suicide rate than married or cohabitating individuals (Roskar et al., 2011; Stolberg et al., 2002).

Finally, in the United States at least, suicide rates seem to vary according to race (see Figure 9-1). The overall suicide rate of white Americans is more than twice as high as that of African Americans, Hispanic Americans, and Asian Americans (AFSP, 2014; CDC, 2013). A major exception to this pattern is the very high suicide rate of American Indians, which is at least 20 percent higher than that of white Americans (Herne et al., 2014; SPRC, 2013; CDC, 2010).

Although the extreme poverty of many American Indians may partly explain their high suicide rate, studies show that factors such as alcohol use, modeling, and the availability of guns may also play a role (Lanier, 2010). In addition to differences across racial groups, researchers have found that suicide rates sometimes differ within groups. Among Hispanic Americans, for example, Puerto Ricans are significantly more likely to attempt suicide than any other Hispanic American group (Baca-Garcia et al., 2011).

Some of these statistics on suicide have been questioned. Analyses suggest, for example, that the actual rate of suicide may be 15 percent higher for African Americans and 6 percent higher for American Indians (AFSP, 2014; CDC, 2010; SPRC, 2013).
for women than usually reported (Barnes, 2010; Phillips & Ruth, 1993). People in these groups are more likely than others to use methods of suicide that can be mistaken for causes of accidental death, such as poisoning, drug overdose, single-car crashes, and pedestrian accidents.

### What Triggers a Suicide?

Suicidal acts may be connected to recent events or current conditions in a person’s life. Although such factors may not be the basic motivation for the suicide, they can precipitate it. Common triggering factors include stressful events, mood and thought changes, alcohol and other drug use, mental disorders, and modeling.

#### Stressful Events and Situations

Researchers have counted more stressful events in the recent lives of suicide attempters than in the lives of nonattempters (Foster, 2011; Pompili et al., 2011). One stressor that has been consistently linked to suicide is combat stress. Research indicates that combat veterans from various wars are more than twice as likely to commit suicide as nonveterans (Jakupcak & Varra, 2011). At the beginning of this chapter, for example, you read about a young man who committed suicide upon returning to civilian life, after experiencing the enormous stressors of combat in Iraq.

The stressors that help lead to suicide do not need to be as horrific as those tied to combat. Common forms of immediate stress seen in cases of suicide are the loss of a loved one through death, divorce, or rejection (Roskar et al., 2011); loss of a job (Milner et al., 2014; Kuroki, 2010); significant financial loss (Houle & Light, 2014); and stress caused by hurricanes or other natural disasters, even among very young children. A suicide attempt may also be precipitated by a series of recent events that have a combined impact, rather than by a single event, as in the following case:

> Sally’s suicide attempt took place in the context of a very difficult year for the family. Sally’s mother and stepfather separated after 9 years of marriage. After the father moved out, he visited the family erratically. Four months after he moved out of the house, the mother’s boyfriend moved into the house. The mother planned to divorce her husband and marry her boyfriend, who had become the major disciplinarian for the children, a fact that Sally intensely resented. Sally also complained of being “left out” in relation to the closeness she had with her mother. Another problem for Sally had been two school changes in the last 2 years which left Sally feeling friendless. In addition, she failed all her subjects in the last marking period.

(Pfeffer, 1986, pp. 129–130)

People may also attempt suicide in response to long-term rather than recent stress. Four such stressors are particularly common—social isolation, serious illness, an abusive environment, and occupational stress.

**Social Isolation** As you saw in the cases of Dave, Demaine, and Tya, people from loving families or supportive social systems may commit suicide. However, those without such social supports are particularly vulnerable to suicidal thinking and actions. Researchers have found a heightened risk for suicidal behavior among those who feel little sense of “belongingness,” believe that they have limited or...
no social support, live alone, and have ongoing conflicts with other people (You et al., 2011).

**Serious Illness** People whose illnesses cause them great pain or severe disability may try to commit suicide, believing that death is unavoidable and imminent (Schneider & Shenassa, 2008). They may also believe that the suffering and problems caused by their illnesses are more than they can endure. Studies suggest that as many as one-third of those who die by suicide have been in poor physical health during the months prior to their suicidal acts (MacLean et al., 2011; Conwell et al., 1990). In fact, illness-linked suicides have become more common, and more controversial, in recent years (Levy et al., 2011; Dickens et al., 2008). Although physicians can now keep seriously ill people alive much longer, they often are unable to extend the quality and comfort of the patients’ lives (Werth, 2001).

**Abusive or Repressive Environment** Victims of an abusive or repressive environment from which they have little or no hope of escape sometimes commit suicide. For example, some prisoners of war, inmates of concentration camps, abused spouses, abused children, and prison inmates try to end their lives (Fazel et al., 2011). Like those who have serious illnesses, these people may feel that they can endure no more suffering and believe that there is no hope for improvement in their condition.

**Occupational Stress** Some jobs create feelings of tension or dissatisfaction that may trigger suicide attempts. Research has found particularly high suicide rates among psychiatrists and psychologists, physicians, nurses, dentists, lawyers, police officers, farmers, and unskilled laborers (Kleespies et al., 2011; Skegg et al., 2010). Such correlations do not necessarily mean that occupational pressures directly cause suicidal actions. Perhaps unskilled workers are responding to financial insecurity rather than job stress when they attempt suicide. Similarly, rather than reacting to the emotional strain of their work, suicidal psychiatrists and psychologists may have long-standing emotional problems that stimulated their career interest in the first place.

**Mood and Thought Changes**

Many suicide attempts are preceded by a change in mood (see *PsychWatch* on the next page). The change may not be severe enough to warrant a diagnosis of a mental disorder, but it does represent a significant shift from the person’s past mood. The most common change is an increase in sadness. Also common are increases in feelings of anxiety, tension, frustration, anger, or shame (Reisch et al., 2010). In fact, Shneidman (2005, 2001) believed that the key to suicide is “psychache,” a feeling of psychological pain that seems intolerable to the person. A study of 88 patients found that those who scored higher on a measure called the Psychological Pain Assessment Scale were indeed more likely than others to commit suicide (Pompili et al., 2008).

Suicide attempts may also be preceded by shifts in patterns of thinking. People may become preoccupied with their problems, lose perspective, and see suicide as the only effective solution to their difficulties (Shneidman, 2005, 2001). They often develop a sense of hopelessness—a pessimistic belief that their present circumstances, problems, or mood will not change. In fact, one study found that people who generally expressed feelings of hopelessness were 11 times more likely to commit suicide over a 13-year follow-up period than people who did not feel hopeless (Kuo et al., 2004). Thus, some clinicians believe that a feeling of hopelessness is the single most likely indicator of suicidal intent, and they take special care to look for signs of hopelessness when they assess the risk of suicide (Rosellini & Bagge, 2014; Sargalska et al., 2011).
Can Music Inspire Suicide?

In 2008, a 13-year-old girl in Britain hanged herself (Woodward, 2008). The cause, according to a coroner, was in large part her obsession with emo music, music that mixes a guitar-based sound, punk rock, and strong doses of emotionality (“emo” is short for “emotional!”). The coroner pointed in particular to the music of the popular emo band My Chemical Romance, her favorite group. Friends reported at the inquest into her death that the suicide victim had previously discussed the “glamour of suicide” that attracted her to emo music and had posted a picture of an emo girl with bloody wrists online. The British press, in turn, described My Chemical Romance as a “suicide cult band,” prompting the band to defend itself and emo music in general as “anti-suicide” and filled with positive messages in its lyrics (Woodward, 2008).

This tragedy is hardly the first time that music has been blamed by the public for suicidal acts. In fact, over the years, music genres as varied as country, opera, heavy metal, and pop rock have been pointed to as negative influences, particularly on teenagers, that can lead to suicide attempts (Copley, 2008; Snipes & Maguire, 1995; Litman & Farberow, 1994; Stack et al., 1994; Wass et al, 1991). Little research has been conducted on this issue, and that which has been done fails to provide clear support for such claims. But the concerns go on and, indeed, have helped lead to the current music rating system, which informs consumers (and their parents) about the kinds of language and themes that are on the CDs or music downloads.

Two famous cases in the 1980s first brought this concern into public awareness. One involved the music of Ozzy Osbourne, leader of the band Black Sabbath. In the early days of Black Sabbath, Osbourne and the band centered much of their music on psychological themes, and the band’s music was even perceived by many as having a “satanic” bent.

Osbourne departed the band for a solo career in 1979 that lasted into the late 1990s. During this period, his solo music was blamed for three suicides. In 1984, a 19-year-old boy shot himself in the head while listening to Osbourne’s song “Suicide Solution.” A lawyer for the boy’s family and lawyers for two other families whose children committed suicide claimed that the theme of the song encouraged suicide as an acceptable solution to one’s problems. The lawyers also claimed that the song contained tones known as “hemisync” (a process that uses sound waves to influence an individual’s mental state) and that these tones left the suicidal boys unable to resist what was being said in the song. Finally, the lawyers claimed that the song had subliminal lyrics—words sung much faster than the normal rate of speech and unrecognizable to first-time listeners. Supposedly, the subliminal lyrics in the song were “Why try, why try? Get the gun and try it! Shoot, shoot, shoot.” Osbourne’s lawyers rejected such claims, and the court agreed, dismissing all three cases by 1986.

A second famous case involved the music of the heavy metal band Judas Priest. In 1985, two boys died after shooting themselves in the head with a shotgun. The boys had been drunk and on drugs and shot themselves in a “suicide pact” after listening to a Judas Priest album for hours. Lawyers for the boys’ families claimed that Judas Priest’s 1977 song “Better by You, Better Than Me” contained, when played backward, the subliminal message “Do it” as well as “Try suicide” and “Let’s be dead.” The band’s lawyers countered that any song played backward might seem to have a hidden message. The trial judge agreed, and he dismissed the $6.2 million lawsuit in 1990. He ruled that even if the lyrics conveyed subliminal messages, such messages had been unintentional.

If the music in these cases did not itself lead to suicide, what did? A number of clinicians have argued that the people in these cases were probably suffering from several kinds of factors typically linked to suicide—depression, stress, drug abuse, and the like.

Of course, the dismissal of these suits did not put to rest the concerns of parents, which grow even stronger whenever parents read about a teenager—like the 13-year-old in Britain—who commits suicide while listening to death-themed music. While such events are not common in our society, they do, sadly, occur on occasion.

Eye of the storm In a celebrated case, the British press blamed the music of emo group My Chemical Romance for the suicide of a 13-year-old girl.
Many people who attempt suicide fall victim to **dichotomous thinking**, viewing problems and solutions in rigid either/or terms (Shneidman, 2005, 2001, 1993). Indeed, Shneidman said that the “four-letter word” in suicide is “only,” as in “suicide was the only thing I could do” (Maris, 2001). In the following statement a woman who survived her leap from a building describes her dichotomous thinking at the time. She saw death as the only alternative to her pain:

> I was so desperate. I felt, my God, I couldn’t face this thing. Everything was like a terrible whirlpool of confusion. And I thought to myself: There’s only one thing to do. I just have to lose consciousness. That’s the only way to get away from it. The only way to lose consciousness, I thought, was to jump off something good and high. . . .

*(Shneidman, 1987, p. 56)*

### Alcohol and Other Drug Use

Studies indicate that as many as 70 percent of the people who attempt suicide drink alcohol just before they do so (Crosby et al., 2009; McCloud et al., 2004). Autopsies reveal that about one-quarter of these people are legally intoxicated (Flavin et al., 1990). It may be that the use of alcohol lowers a person’s fears of committing suicide, releases underlying aggressive feelings, or impairs his or her judgment and problem-solving ability. Research shows that the use of other kinds of drugs may have a similar tie to suicide, particularly in teenagers and young adults (Darke et al., 2005). A high level of heroin, for example, was found in the blood of Kurt Cobain at the time of his suicide in 1994 (Colburn, 1996).

### Mental Disorders

Although people who attempt suicide may be troubled or anxious, they do not necessarily have a psychological disorder. Nevertheless, the majority of all suicide attempters do have such a disorder (Singhal et al., 2014; Nock et al., 2013; Fountoulakis & Rihmer, 2011). Research suggests that as many as 70 percent of all suicide attempters had been experiencing severe depression, 20 percent chronic alcoholism, and
10 percent schizophrenia (see Table 9-2). Correspondingly, as many as 25 percent of people with each of these disorders try to kill themselves. People who are both depressed and dependent on alcohol seem particularly prone to suicidal impulses (Nenadić-Šviglin et al., 2011). Certain anxiety disorders, including posttraumatic stress disorder and panic disorder, have also been linked to suicide (Rappaport et al., 2014), but in most cases of suicide these disorders occur in conjunction with major depressive disorder, a substance-related disorder, or schizophrenia (Ishii et al., 2014; Bryan & Corso, 2011). It is also the case that many people with borderline personality disorder, a broad pattern that you will read about in Chapter 16, try to harm themselves or make suicidal gestures as part of their disorder (Amore et al., 2014; Paris, 2011). The issues with which these people are grappling are often quite different from those of other suicidal persons and so will be examined in Chapter 16.

As you saw in Chapter 7, people with major depressive disorder often have suicidal thoughts. One program in Sweden was able to reduce the community suicide rate by teaching physicians how to recognize and treat depression at an early stage (Rihmer, Rutz, & Pihlgren, 1995). Similarly, a recent review in the United States found that treatments for depression consistently reduce the rate of suicidal thinking, attempts, and completions among patients (Sakinofsky, 2011). Even when depressed people are showing improvements in mood, however, they may remain at high risk for suicide. In fact, among those who are severely depressed, the risk of suicide may actually increase as their mood improves and they have more energy to act on their suicidal wishes. Recall, for example, Jonathan Boucher, the combat veteran whose case opened this chapter. Just before he committed suicide, he had seemed to be calm and enjoying life again, according to family members and friends.

Severe depression also may play a key role in suicide attempts made by those with serious physical illnesses (Werth, 2004). A study of 44 patients with terminal illnesses revealed that fewer than one-quarter of them had thoughts of suicide
Suicide: 295

or wished for an early death and that those who did were all suffering from major depressive disorder (Brown et al., 1986).

A number of the people who drink alcohol or use drugs just before a suicide attempt actually have a long history of abusing such substances (Ries, 2010). The basis for the link between substance-related disorders and suicide is not clear. Perhaps the tragic lifestyle of many persons with these disorders or their sense of being hopelessly trapped by a substance leads to suicidal thinking. Alternatively, a third factor—psychological pain, for instance, or desperation—may cause both substance abuse and suicidal thinking (Sher et al., 2005). Such people may be caught in a downward spiral: they are driven toward substance use by psychological pain or loss, only to find themselves caught in a pattern of substance abuse that aggravates rather than solves their problems (Maris, 2001).

People with schizophrenia, as you will see in Chapter 14, may hear voices that are not actually present (hallucinations) or hold beliefs that are clearly false and perhaps bizarre (delusions). The popular notion is that when such people kill themselves, they must be responding to an imagined voice commanding them to do so or to a delusion that suicide is a grand and noble gesture. Research indicates, however, that suicides by people with schizophrenia more often reflect feelings of demoralization or fears of further mental deterioration (Meltzer, 2011; Pompili & Lester, 2007). Many young and unemployed people with schizophrenia who have had relapses over several years come to believe that the disorder will forever disrupt their lives. Still others seem to be disheartened by their substandard living conditions. Suicide is the leading cause of premature death among people with schizophrenia.

Modeling: The Contagion of Suicide

It is not unusual for people, particularly teenagers, to try to commit suicide after observing or reading about someone else who has done so (Hagihara et al., 2014; Ali, Dwyer, & Rizzo, 2011). Perhaps they have been struggling with major problems and the other person’s suicide seems to reveal a possible solution, or perhaps they have been thinking about suicide and the other person’s suicide seems to give them permission or finally persuades them to act. Either way, one suicidal act apparently serves as a model for another. Suicides by family members and friends, those by celebrities, other highly publicized suicides, and those by coworkers or colleagues are particularly common triggers.

Family Members and Friends A recent suicide by a family member or friend increases the likelihood that a person will attempt suicide (Ali et al., 2011). Of course, the death of a family member or friend, especially when self-inflicted, is a life-changing event, and suicidal thoughts or attempts may be tied largely to that trauma or sense of loss. Indeed, such losses typically have a lifelong impact on surviving relatives and friends, including a heightened risk of suicide that can continue for years (Roy, 2011). However, even when researchers factor out these issues, they find increases in the risk of suicide among the relatives and friends of people who recently committed suicide (Ali et al., 2011). This additional risk factor is often called the social contagion effect.

Celebrities Research suggests that suicides by entertainers, political figures, and other well-known people are regularly followed by unusual increases in the number of suicides across the nation (Queinec et al., 2011). During the week after the suicide of Marilyn Monroe in 1963, for example, the national suicide rate rose 12 percent (Phillips, 1974).
Other Highly Publicized Cases Suicides with bizarre or unusual aspects often receive intense coverage by the news media. Such highly publicized accounts may lead to similar suicides (Hagihara et al., 2014; Blood et al., 2007; Gould et al., 2007). During the year after a widely publicized, politically motivated suicide by self-burning in England, for example, 82 other people set themselves on fire, with equally fatal results (Ashton & Donnan, 1981). Inquest reports revealed that most of those people had histories of emotional problems and that none of the suicides had the political motivation of the publicized suicide. The imitators seemed to be responding to their own problems in a manner triggered by the suicide they had observed or read about.

Even a media program that is clearly intended to educate and help viewers may have the paradoxical effect of spurring imitators. One study found a dramatic increase in the rate of suicide among West German teenagers after the airing of a television documentary showing the suicide of a teenager who jumped under a train (Schmidtke & Häfner, 1988). The number of railway suicides by male teenagers increased by 175 percent after the program was aired.

Some clinicians argue that more responsible reporting could reduce this frightening impact of highly publicized suicides (Mann & Currier, 2011; Blood et al., 2007). A careful approach to reporting was seen in the media’s coverage of the suicide of Kurt Cobain. MTV’s repeated theme on the evening of the suicide was “Don’t do it!” In fact, thousands of young people called MTV and other radio and television stations in the hours after Cobain’s death, upset, frightened, and in some cases suicidal. Some of the stations responded by posting the phone numbers of suicide prevention centers, presenting interviews with suicide experts, and offering counseling services and advice directly to callers. Perhaps because of such efforts, the usual rate of suicide both in Seattle, where Cobain lived, and elsewhere held steady during the weeks that followed (Colburn, 1996).

Coworkers and Colleagues The word-of-mouth publicity that attends suicides in a school, workplace, or small community may trigger suicide attempts. The suicide of a recruit at a U.S. Navy training school, for example, was followed within 2 weeks by another and also by an attempted suicide at the school. To head off what threatened to become a suicide epidemic, the school began a program of staff education on suicide and group therapy sessions for recruits who had been close to the suicide victims (Grigg, 1988). Today, a number of schools, for individuals of all ages, put into action programs of this kind after a student commits suicide (Miller, 2011). Such postsuicide programs are often referred to by clinicians as postvention.

What Are the Underlying Causes of Suicide?
Most people faced with difficult situations never try to kill themselves. In an effort to understand why some people are more prone to suicide than others, theorists have proposed more fundamental explanations for self-destructive actions than the immediate triggers considered in the previous section. The leading theories come from the psychodynamic, sociocultural, and biological perspectives. As a group, however, these hypotheses have received limited research support and fail to address the full range of suicidal acts. Thus the clinical field currently lacks a satisfactory understanding of suicide.

The Psychodynamic View
Many psychodynamic theorists believe that suicide results from depression and from anger at others that is redirected toward oneself. This theory was first stated by Wilhelm Stekel at a meeting in Vienna in 1910, when he proclaimed that “no
one kills himself who has not wanted to kill another or at least wished the death of another” (Shneidman, 1979). Some years later Sigmund Freud (1920) wrote, “No neurotic harbors thoughts of suicide which he has not turned back upon himself from murderous impulses against others.” Agreeing with this notion, the influential psychiatrist Karl Menninger called suicide “murder in the 180th degree.”

As you read in Chapter 7, Freud (1917) and Abraham (1916, 1911) proposed that when people experience the real or symbolic loss of a loved one, they come to “introject” the lost person; that is, they unconsciously incorporate the person into their own identity and feel toward themselves as they had felt toward the other. For a short while, negative feelings toward the lost loved one are experienced as self-hatred. Anger toward the loved one may turn into intense anger against oneself and finally into depression. Suicide is thought to be an extreme expression of this self-hatred and self-punishment (Campbell, 2010). The following description of a suicidal patient demonstrates how such forces may operate:

A 27-year-old conscientious and responsible woman took a knife to her wrists to punish herself for being tyrannical, unreliable, self-centered, and abusive. She was perplexed and frightened by this uncharacteristic self-destructive episode and was enormously relieved when her therapist pointed out that her invective described her recently deceased father much better than it did herself.

(Gill, 1982, p. 15)

In support of Freud’s view, researchers have often found a relationship between childhood losses—real or symbolic—and later suicidal behaviors (Alonzo et al., 2014; Fuller-Thomson & Dalton, 2011; Roy, 2011). A classic study of 200 family histories, for example, found that early parental loss was much more common among suicide attempters (48 percent) than among nonsuicidal individuals (24 percent) (Adam, Bouckoms, & Streiner, 1982). Common forms of loss were death of the father and divorce or separation of the parents. Similarly, a study of 343 depressed individuals found that those who had felt rejected or neglected as children by their parents were more likely than other people to attempt suicide as adults (Ehnvall et al., 2008).

Late in his career, Freud proposed that human beings have a basic “death instinct.” He called this instinct Thanatos and said that it opposes the “life instinct.” According to Freud, while most people learn to redirect their death instinct by aiming it toward others, suicidal people, caught in a web of self-anger, direct it squarely toward themselves.

Sociological findings are consistent with this explanation of suicide. National suicide rates have been found to drop in times of war (Maris, 2001), when, one could argue, people are encouraged to direct their self-destructive energy against “the enemy.” In addition, in many parts of the world, societies with high rates of homicide tend to have low rates of suicide, and vice versa (Bills & Li, 2005). However, research has failed to establish that suicidal people are in fact dominated by intense feelings of anger. Although hostility is an important element in some suicides, several studies find that other emotional states are even more prevalent (Conner & Weisman, 2011; Castrogiovanni et al., 1998).

By the end of his career, Freud himself expressed dissatisfaction with his theory of suicide. Other psychodynamic theorists have also challenged his ideas over the years, yet themes of loss and self-directed aggression generally remain at the center of most psychodynamic explanations (King, 2003).
Durkheim’s Sociocultural View

Toward the end of the nineteenth century, Emile Durkheim (1897), a sociologist, developed a broad theory of suicidal behavior. Today this theory continues to be influential and is often supported by research (Fernquist, 2007). According to Durkheim, the probability of suicide is determined by how attached a person is to such social groups as the family, religious institutions, and community. The more thoroughly a person belongs, the lower the risk of suicide. Conversely, people who have poor relationships with their society are at higher risk of killing themselves. He defined several categories of suicide, including egoistic, altruistic, and anomic suicide.

Egoistic suicides are committed by people over whom society has little or no control. These people are not concerned with the norms or rules of society, nor are they integrated into the social fabric. According to Durkheim, this kind of suicide is more likely in people who are isolated, alienated, and nonreligious. The larger the number of such people living in a society, the higher that society’s suicide rate.

Altruistic suicides, in contrast, are committed by people who are so well integrated into the social structure that they intentionally sacrifice their lives for its well-being. Soldiers who threw themselves on top of a live grenade to save others, Japanese kamikaze pilots who crashed their planes into enemy ships during World War II, and Buddhist monks and nuns who protested the Vietnam War by setting themselves on fire may have been committing altruistic suicide (Leenaars, 2004; Stack, 2004). According to Durkheim, societies that encourage people to sacrifice themselves for others and to preserve their own honor (as East Asian societies do) are likely to have higher suicide rates.

Anomic suicides, another category proposed by Durkheim, are those committed by people whose social environment fails to provide stable structures, such as family and religion, to support and give meaning to life. Such a societal condition, called anomic (literally, “without law”), leaves people without a sense of belonging. Unlike egoistic suicide, which is the act of a person who rejects the structures of a society, anomic suicide is the act of a person who has been let down by a disorganized, inadequate, often decaying society.

Durkheim argued that when societies go through periods of anomie, their suicide rates increase. Historical trends support this claim. Periods of economic depression may bring about some degree of anomie in a country, and national suicide rates tend to rise during such times (Noh, 2009; Maris, 2001). Periods of population change and increased immigration, too, tend to bring about a state of anomie, and again suicide rates rise (Kposowa et al., 2008).

A major change in a person’s immediate surroundings, rather than general societal problems, can also lead to anomic suicide. People who suddenly inherit a great deal of money, for example, may go through a period of anomie as their relationships with social, economic, and occupational structures are changed. Thus Durkheim predicted that societies with more opportunities for change in individual wealth or status would have higher suicide rates; this prediction is also supported by research (Cutright & Fernquist, 2001; Lester, 2000, 1985). Conversely, people who are removed from society and sent to a prison environment may experience anomie. As you read earlier, research confirms that such people have a heightened suicide rate (Fazel et al., 2011).

Although today’s sociocultural theorists do not always embrace Durkheim’s particular ideas, most agree that social structure and cultural stress often play major roles in suicide. In fact, the sociocultural view pervades the study of suicide. Recall the earlier discussion of the many studies linking suicide to broad factors...
such as religious affiliation, marital status, gender, race, and societal stress. You will also see the impact of such factors when you read about the ties between suicide and age.

Despite the influence of sociocultural theories such as Durkheim’s, these theories cannot by themselves explain why some people who face particular societal pressures commit suicide while the majority do not. Durkheim himself concluded that the final explanation probably lies in the interaction between societal and individual factors.

**The Biological View**

For years, biological researchers have relied largely on family pedigree studies to support their position that biological factors contribute to suicidal behavior. They repeatedly have found higher rates of suicide among the parents and close relatives of suicidal people than among those of nonsuicidal people (Petersen et al., 2014; Roy, 2011; Brent & Mann, 2003). Such findings may suggest that genetic, and so biological, factors are at work.

Studies of twins also have supported this view of suicide. In a famous study, researchers who studied twins born in Denmark between 1870 and 1920 located 19 identical pairs and 58 fraternal pairs in which at least one twin had committed suicide (Juel-Nielsen & Videbech, 1970). In 4 of the identical pairs the other twin also committed suicide (21 percent), while none of the other twins among the fraternal pairs had done so.

As with all family pedigree and twin research, there are nonbiological interpretations for these findings as well. Psychodynamic clinicians might argue that children whose close relatives commit suicide are prone to depression and suicide because they have lost a loved one at a critical stage of development. Behavioral theorists might emphasize the modeling role played by parents or close relatives who attempt suicide.

In the past three decades, laboratory studies have offered more direct support for a biological view of suicide. One promising line of research focuses on serotonin. The activity level of this neurotransmitter has often been found to be low in people who commit suicide (Fabio Di Narzo et al., 2014; Pompili et al., 2010; Mann & Currier, 2007). An early hint of this relationship came from a study by psychiatric researcher Marie Asberg and her colleagues (1976). They studied 68 depressed patients and found that 20 of the patients had particularly low levels of serotonin activity. It turned out that 40 percent of the research participants with such serotonin levels attempted suicide, compared with 15 percent of those with higher serotonin levels. The researchers interpreted this to mean that low serotonin activity may be “a predictor of suicidal acts.” Later studies found that suicide attempters with low serotonin activity are 10 times more likely to make a repeat attempt and succeed than are suicide attempters with higher serotonin activity (Roy, 1992).

Subsequent studies that examined the autopsied brains of suicide victims pointed in the same direction (Fabio Di Narzo et al., 2014; Pompili et al., 2010; Stanley et al., 2000, 1986, 1982). Some of these studies found, for example, that people who committed suicide tended to have fewer receptor sites on neurons that normally receive serotonin than did people who do not commit suicide. Similarly, recent PET scan studies have revealed that people who contemplate or attempt suicide display abnormal activity in areas of the brain that comprise many serotonin-using neurons—areas you read about in Chapters 5 and 7, such as the prefrontal cortex, the orbitofrontal cortex, and the cingulate cortex (Mann & Currier, 2007; Oquendo et al., 2003).

Altruistic suicide?

A clay sculpture of a suicide bomber is displayed at a Baghdad art gallery. Some sociologists believe that the acts of such bombers fit Durkheim’s definition of altruistic suicide, arguing that the bombers believe they are sacrificing their lives for the well-being of their society. Other theorists, however, point out that many such bombers seem indifferent to the innocent lives they are destroying and categorize the bombers instead as mass murderers motivated by hatred rather than by feelings of altruism (Humphrey, 2006).
At first glance, these and related studies may appear to tell us only that depressed people often attempt suicide. After all, depression is itself related to low serotonin activity. On the other hand, there is evidence of low serotonin activity even among suicidal people who have no history of depression (Mann & Currier, 2007). That is, low serotonin activity also seems to play a role in suicide separate from depression.

How, then, might low serotonin activity increase the likelihood of suicidal behavior? One possibility is that it contributes to aggressive and impulsive behaviors (Preti, 2011). It has been found, for example, that serotonin activity is lower in aggressive men than in nonaggressive men and that serotonin activity is often low in those who commit such aggressive acts as arson and murder (Oquendo et al., 2006, 2004; Stanley et al., 2000). Moreover, PET scan studies of people who are aggressive and impulsive (but not necessarily depressed) reveal abnormal activity in the prefrontal cortex, orbitofrontal cortex, cingulate cortex, and other serotonin-rich areas of the brain (Mann & Currier, 2007; New et al., 2004, 2002). And, finally, studies have found that depressed patients with particularly low serotonin activity try to commit suicide more often, use more lethal methods, and score higher in hostility and impulsivity on personality inventories than do depressed patients with relatively higher serotonin activity (Moberg et al., 2011; Oquendo et al., 2003).

Collectively these findings suggest that low serotonin activity helps produce aggressive feelings and impulsive behavior. In people who are clinically depressed, low serotonin activity may produce aggressive tendencies that cause them to be particularly vulnerable to suicidal thoughts and acts. Even in the absence of a depressive disorder, however, people with low serotonin activity may develop such aggressive feelings that they, too, are dangerous to themselves or to others. Still other research indicates that low serotonin activity combined with key psychosocial factors (such as childhood traumas) may be the strongest suicide predictor of all (Moberg et al., 2011).

Is Suicide Linked to Age?

Although people of all ages may try to kill themselves, the likelihood of committing suicide steadily increases with age up through middle age, then decreases during the early stages of old age, and then increases again beginning at age 85 (see Figure 9-2). Currently, 1 of every 100,000 people under 15 years of age in the United States kills himself or herself each year, compared with 11 of every 100,000 people between 15 and 24 years old, 19 of every 100,000 between 45 and 64 years old, 15 of every 100,000 between 65 and 84, and 18 of every 100,000 people over age 85 (AFSP, 2014; CDC, 2013). The exceptional rate of suicide among those who are middle-aged is a recent phenomenon and is not fully understood. Up until 2006, that rate had been considerably lower than the current rate and always lower than that of elderly people.

Clinicians have paid particular attention to self-destructive behavior in three age groups: children, adolescents, and the elderly. Although the features and theories of suicide discussed throughout this chapter apply to all age groups, each group faces unique problems that may play key roles in the suicidal acts of its members.
Although suicide is infrequent among children, it has been increasing over the past several decades (Dervic, Brent, & Oquendo, 2008). Indeed, more than 6 percent of all deaths among children between the ages of 10 and 14 years are caused by suicide (Arias et al., 2003). Boys outnumber girls by as much as 5 to 1. In addition, it has been estimated that 1 of every 100 children tries to harm himself or herself, and many thousands of children are hospitalized each year for deliberately self-destructive acts, such as stabbing, cutting, burning, or shooting themselves; overdosing; or jumping from high places (Fortune & Hawton, 2007; Cytryn & McKnew, 1996).

Researchers have found that suicide attempts by the very young are commonly preceded by such behavioral patterns as running away from home; accident-proneness; aggressive acting out; temper tantrums; self-criticism; social withdrawal and loneliness; extreme sensitivity to criticism by others; low tolerance of frustration; sleep problems; dark fantasies, daydreams, or hallucinations; marked personality change; and overwhelming interest in death and suicide (Wong et al., 2011; Dervic et al., 2008). Studies further have linked child suicides to the recent or anticipated loss of a loved one, family stress and a parent's unemployment, abuse by parents, victimization by peers (for example, bullying), and a clinical level of depression (van Geel, Vedder, & Tanilon, 2014; Renaud et al., 2008; Van Orden et al., 2008).

Most people find it hard to believe that children fully comprehend the meaning of a suicidal act. They argue that because a child's thinking is so limited, children who attempt suicide fall into Shneidman's category of “death ignorer,” like Demaine, who sought to join his mother in heaven. Many child suicides, however, appear to be based on a clear understanding of death and on a clear wish to die (Pfeffer, 2003). In addition, suicidal thinking among even normal children is apparently more common than most people once believed. Clinical interviews with schoolchildren have revealed that between 6 and 33 percent have thought about suicide (Riesch et al., 2008; Culp, Clyman, & Culp, 1995). Small wonder that many of today's elementary schools have tried to develop tools and procedures for better identifying and assessing suicide risk among their students (Miller, 2011; Whitney et al., 2011).
Adolescents

(Berman, 1986)

The suicide of John, age 17, was not an unusual occurrence. Suicidal actions become much more common after the age of 13 than at any earlier age. According to official records, approximately 1,400 teenagers (age 13 to 18), or 7 of every 100,000, commit suicide in the United States each year (Nock et al., 2013). In addition, at least 12 percent of teenagers have persistent suicidal thoughts and 4 percent make suicide attempts (Nock et al., 2013). Because fatal illnesses are uncommon among the young, suicide has become the third leading cause of death in this age group, after accidents and homicides. Around 10 percent of all adolescent deaths are the result of suicide (Pompili et al., 2011; Shain, 2007).

About half of teenage suicides, like those of people in other age groups, have been tied to clinical depression (see PsychWatch on the next page), low self-esteem, and feelings of hopelessness, but many teenagers who try to kill themselves also appear to struggle with anger and impulsiveness or to have serious alcohol or drug problems (Orri et al., 2014; Renaud et al., 2008; Witte et al., 2008). Some also have deficiencies in their ability to sort out and solve problems.

Teenagers who consider or attempt suicide are often under great stress. They may be dealing with long-term pressures such as poor (or missing) relationships with parents, family conflict, inadequate peer relationships, and social isolation (Orri et al., 2014; Capuzzi & Gross, 2008; Apter & Wasserman, 2007). Alternatively, their actions also may be triggered by more immediate stress, such as a parent’s unemployment or medical illness, financial setbacks for the family, or a social loss such as a breakup with a boyfriend or girlfriend (Orbach & Iohan, 2007). Stress at school seems to be a particularly common problem for teenagers who attempt suicide. Some have trouble keeping up at school, while others may be high achievers who feel pressured to be perfect and to stay at the top of the class (Frazier & Cross, 2011). In many high schools, psychologists and teachers are now trained to look for these and other risk factors in students (Miller, 2011; Whitney et al., 2011).

Some theorists believe that the period of adolescence itself produces a stressful climate in which suicidal actions are more likely. Adolescence is a period of rapid growth that is often marked by conflicts, depressed feelings, tensions, and difficulties at home and school. Adolescents tend to react to events more sensitively, angrily, dramatically, and impulsively than individuals in other age groups; thus the likelihood of their engaging in suicidal acts during times of stress is higher (Greening et al., 2008). Finally, the suggestibility of adolescents and their eagerness to imitate others, including others who attempt suicide, may set the stage for suicidal
The Black Box Controversy: Do Antidepressants Cause Suicide?

A major controversy in the clinical field is whether antidepressant drugs are highly dangerous for depressed children and teenagers. Throughout the 1990s, most psychiatrists believed that antidepressants—particularly the second-generation antidepressants—were safe and effective for children and adolescents, just as they seemed to be for adults, and they prescribed those medications readily (Cooper et al., 2014; Hertzman, 2010; Kutcher & Gardner, 2008). However, after reviewing a large number of clinical reports and studying 3,300 patients on antidepressants, the U.S. Food and Drug Administration (FDA) concluded in 2004 that the drugs produce a real, though small, increase in the risk of suicidal behavior for certain children and adolescents, especially during the first few months of treatment, and it ordered that all antidepressant containers carry “black box” warnings stating that the drugs “increase the risk of suicidal thinking and behavior in children.” In 2007 the FDA expanded this warning to include young adults.

Although many clinicians have been pleased by the FDA order, others worry that it may be ill-advised (Isacsson & Rich, 2014; Haliburn, 2010). They argue that while the drugs may indeed increase the risk of suicidal thoughts and attempts in as many as 2 to 3 percent of young patients, the risk of suicide is actually reduced in the vast majority of children and teenagers who take the drugs (Mulder, 2010). To support this argument, they point out that the overall rate of teenage suicides decreased by 30 percent in the decade leading up to 2004, as the number of antidepressant prescriptions provided to children and teenagers were soaring (Isacsson & Rich, 2014; Isacsson et al., 2010).

The critics of the black box warnings also point to the initial effect that the warnings had on prescription patterns and teenage suicide rates in the United States and other countries. Some studies suggest that during the first two years following the institution of the black box warnings, the number of antidepressant prescriptions fell 22 percent in the United States and the Netherlands, while the rate of teenage suicides rose 14 percent in the United States, the largest suicide rate increase since 1979 (Fawcett, 2007). Although other studies challenge these numbers (Wheeler et al., 2008), it is certainly possible that black box warnings were indirectly depriving many young patients of a medication that they truly needed to help fight depression and head off suicide. Antidepressant prescriptions for depressed teenagers now seem to be rising again, and the effect of this trend reversal on teenage suicide rates certainly awaits careful scrutiny.

A major outgrowth and benefit of the black box controversy is that the FDA recently has expanded its interest in suicidal side effects to drugs other than antidepressants. It now requires pharmaceutical companies to test for suicidal side effects in certain newly developed drugs, such as those for obesity and epilepsy, before such drugs receive FDA approval (Carey, 2008; Harris, 2008). In the past, lethal effects of this kind never came to light until well after drugs had been approved and used by millions of patients.

action (Apter & Wasserman, 2007). One pioneering study found that 93 percent of adolescent suicide attempters had known someone who had attempted suicide (Conrad, 1992).

Teen Suicides: Attempts Versus Completions Far more teenagers attempt suicide than actually kill themselves—most experts believe that the ratio is 25 to 1 (AFSP, 2014), although estimates range as high as 200 to 1. In contrast, the ratio is thought to be 4 to 1 among the elderly. The unusually large number of unsuccessful teenage suicides may mean that adolescents are less certain than middle-age and elderly people who make such attempts. While some do indeed wish to die, many may simply want to make others understand how desperate they are, or they may want to get help or teach others a lesson (Apter & Wasserman, 2007). Up to half of teenagers who make a suicide attempt try again in the future,
and as many as 14 percent eventually die by suicide (Horwitz, Czyz, & King, 2014; Wong et al., 2008; Borowsky et al., 2001).

Why is the rate of suicide attempts so high among teenagers (as well as among young adults)? Several explanations, most pointing to societal factors, have been proposed. First, as the number and proportion of teenagers and young adults in the general population have risen, the competition for jobs, college positions, and academic and athletic honors has intensified for them, leading increasingly to shattered dreams and ambitions (Holinger & Offer, 1993, 1991, 1982). Other explanations point to weakening ties in the family (which may produce feelings of alienation and rejection in many of today’s young people) and to the easy availability of alcohol and other drugs and the pressure to use them among teenagers and young adults (Brent, 2001; Cutler et al., 2001).

The mass media coverage of suicides by teenagers and young adults may also contribute to the high rate of suicide attempts among the young (Gould et al., 2007). The detailed descriptions of teenage suicide that the media and the arts often offer may serve as models for young people who are contemplating suicide (Cheng et al., 2007). In one of the most famous examples of this phenomenon, just days after the highly publicized suicides of four adolescents in a New Jersey town in 1987, dozens of teenagers across the United States took similar actions (at least 12 of them fatal)—two in the same garage just one week later. Similarly, one study found that the rate of adolescent suicide rose about 7 percent in New York City during the week following a television film on suicide, in contrast to a 0.5 percent increase in the adult suicide rate during the same week (Maris, 2001).

It is worth noting here that a number of pro-suicide forums and chat rooms have popped up on the Internet in recent years. Some pro-suicide Web sites celebrate former users who have committed suicide; others help set up appointments for joint or partner suicides; and several offer specific instructions about suicide methods and locations and writing suicide notes (Davey, 2010; Becker & Schmidt, 2004). During a two-month period in 2008, for example, 30 people committed suicide across Japan, all of them involving the use of detergent mixtures that produce a deadly hydrogen sulfide gas—a technique repeatedly described and encouraged on Internet suicide sites (CNN, 2008).

Although such sites are growing in number and influence, they do not appear to be a major factor in the rise of teenage suicide attempts—at least not yet. One study used a strategy called “hyperlink network analysis” to determine which Web sites are visited by suicidal people (Kemp & Collings, 2011). The investigators found that pro-suicide sites were not readily accessible and in fact were visited relatively infrequently, whereas sites dedicated to suicide-related information, prevention, or treatment were very accessible and often visited.

“Never was a story of more woe . . .”

Two of the most famous suicides in English literature are those of Shakespeare’s star-crossed lovers Romeo and Juliet, portrayed here by Leonard Whiting and Olivia Hussey in director Franco Zeffirelli’s 1968 movie. The lovers each ended their own life when confronted by the perceived death of the other.

Teen Suicides: Multicultural Issues

Teenage suicide rates vary by ethnicity in the United States. Around 7.5 of every 100,000 white American teenagers commit suicide each year, compared with 5 of every 100,000 African American teens and 5 of every 100,000 Hispanic American teens (Goldston et al., 2008; NAHIC, 2006). Although these numbers certainly indicate that white American teens are more prone to suicide, the rates of the three groups are in fact becoming closer (Baca–Garcia et al., 2011). The white American rate was 150 percent greater than the African American and Hispanic American rates in 1980; today it is only 50 percent greater. This trend may reflect increasingly similar pressures on young African, Hispanic, and white Americans—competition for grades and college opportunities, for example, is now intense for all three groups (Barnes, 2010). The growing suicide rates for young African and Hispanic Americans may also be linked

BETWEEN THE LINES

Attitudes Toward Suicide

Hispanic and African Americans have certain beliefs that may make them less likely to attempt suicide. Both groups hold stronger moral objections to suicide than other groups do. In addition, Hispanic Americans have firmer beliefs about the need to cope and survive and feel more responsibility to their families (Oquendo et al., 2005). And African Americans have higher degrees of orthodox religious belief and personal devotion and express more concern about giving others the power to end one’s life (MacDonald, 1998; Neeleman et al., 1998).
to their rising unemployment, the many anxieties and economic pressures of inner-city life, and the rage many feel over racial inequities and discrimination in our society (Baca-Garcia et al., 2011; Barnes, 2010; Goldston et al., 2008). Recent studies further indicate that 4.5 of every 100,000 Asian American teens now commit suicide each year.

The highest teenage suicide rate of all is displayed by American Indians. Currently, more than 15 of every 100,000 American Indian teenagers commit suicide each year, double the rate of white American teenagers and triple that of other minority teenagers. Clinical theorists attribute this extraordinarily high rate to factors such as the extreme poverty faced by most American Indian teens, their limited educational and employment opportunities, their particularly high rate of alcohol abuse, and the geographical isolation of those who live on reservations (Alcántara & Gone, 2008; Goldston et al., 2008). In addition, it appears that certain American Indian reservations have extreme suicide rates—called cluster suicides—and that teenagers who live in such communities are unusually likely to be exposed to suicide, to have their lives disrupted, to observe suicidal models, and to be at risk for suicide contagion (Bender, 2006; Chekki, 2004).

The Elderly

Rose Ashby walks to the dry cleaner's to pick up her old but finest dinner dress. Although shaken at the cost of having it cleaned, Rose tells the sympathetic girl behind the counter, "Don't worry. It doesn't matter. I won't be needing the money any more."

Walking through the streets of St. Petersburg, Florida, she still wishes it had been Miami. The west coast of the fountain-of-youth peninsula is not as warm as the east. If only Chet had left more insurance money, Rose could have afforded Miami. In St. Petersburg, Rose failed to unearth de León's promised fount.

Last week, she told the doctor she felt lonely and depressed. He said she should perk up. She had everything to live for. What does he know? Has he lost a husband like Chet and his left breast to cancer all in one year? Has he suffered arthritis all his life? Were his ovaries so bad he had to undergo a hysterectomy? Did he have to suffer through menopause just to end up alone without family or friends? Does he have to live in a dungeon? Is his furniture worn, his carpet threadbare? What does he know? Might his every day be the last one for him?

As Rose turns into the walk to her white cinderblock apartment building, fat Mrs. Green asks if she is coming to the community center that evening. Who needs it? The social worker did say Rose should come. Since Rose was in such good health, she could help those not so well as she.


When she told the doctor she couldn't sleep, he gave her the prescription but said that all elderly people have trouble sleeping. What does he know? Does he have a middle-aged daughter who can only think about her latest divorce, or grandchildren who only acknowledge her birthday check by the endorsement on the back? Are all his friends dead and gone? Is all the money from his dead husband’s insurance used up? What does he know? Who could sleep in this dungeon?

Back in her apartment, Rose washes and sets her hair. It's good she has to do it herself. Look at this hair. So thin, so sparse, so frowsy. What would a hairdresser think?

continued on the next page
Then make-up. Base. Rouge. Lipstick. Bright red. Perfume? No! No cheap perfume for Rose today. Remember the bottles of Joy Chet would buy for her? He always wanted her to have the best. He would boast that she had everything, and that she never had to work a day in her life for it.

“She doesn’t have to lift her little finger,” Chet would say, puffing on his cigar. Where is the Joy now? Dead and gone. With Chet. Rose manages a wry laugh at the play on words.

Slipping into her dinner dress, she looks into the dresser mirror. “It’s good you can’t see this face now, Chet. How old and ugly it looks.”

Taking some lavender notepaper from the drawer, she stands at the dresser to write. Why didn’t anyone warn her that growing old was like this? It is so unfair. But they don’t care. People don’t care about anyone except themselves.

Leaving the note on the dresser, she suddenly feels excited. Breathing hard now, she rushes to the sink—who could call a sink in the counter in the living room a kitchen?—and gets a glass of water.

Trying to relax, Rose arranges the folds in her skirt as she settles down on the chaise. Carefully sipping the water as she takes all the capsules so as not to smear her lipstick, Rose quietly begins to sob. After a lifetime of tears, these will be her last. Her note on the dresser is short, written to no one and to everyone.

You don’t know what it is like to have to grow old and die.

(Gernsbacker, 1985, pp. 227–228)

More than 15 of every 100,000 people over the age of 65 in the United States commit suicide, a rate that rises to 18 per 100,000 among the very elderly, as you read earlier (AFSD, 2014). Elderly people commit over 19 percent of all suicides in the United States, yet they account for only 14 percent of the total population (U.S. Census Bureau, 2014).

Many factors contribute to this high suicide rate. As people grow older, all too often they become ill, lose close friends and relatives, lose control over their lives, and lose status in our society (Draper, 2014; O’Riley et al, 2014). Such experiences may result in feelings of hopelessness, loneliness, depression, “burdensomeness,”...
or inevitability among aged persons and so increase the likelihood that they will attempt suicide (Kim et al., 2014; Cukrowsicz et al., 2011; Jahn et al., 2011). One study found that two-thirds of particularly elderly individuals (those over 80 years old) who committed suicide had been hospitalized for medical reasons within 2 years preceding the suicide (Erlangsen et al., 2005), and another found a heightened rate of vascular or respiratory illnesses among elderly people who attempted suicide (Levy et al., 2011). Still other research has shown that the suicide rate of elderly people who have recently lost a spouse is particularly high (Ajdacic-Gross et al., 2008). The risk is greatest during the first weeks of bereavement, but it remains high in later months and years as well.

Elderly people are typically more determined than younger people in their decision to die and give fewer warnings, so their success rate is much higher (Dennis & Brown, 2011). As you read earlier, an estimated one of every four elderly persons who attempts suicide succeeds (AFSD, 2014). Given the resolve of aged persons and their physical decline, some people argue that older persons who want to die are clear in their thinking and should be allowed to carry out their wishes (see InfoCentral on the next page). However, clinical depression appears to play an important role in as many as 60 percent of suicides by the elderly, suggesting that more elderly people who are suicidal should be receiving treatment for their depressive disorders (Levy et al., 2011; Hirsch et al., 2009). In fact, research suggests that treating depression in older persons helps reduce their risk of suicide markedly (Draper, 2014; Lapierre et al., 2011).

The suicide rate among the elderly in the United States is lower in some minority groups (Joe et al., 2014; Alcántara & Gone, 2008; Leach & Leong, 2008). Although American Indians have the highest overall suicide rate, for example, the rate among elderly American Indians is relatively low. The aged are held in high esteem by American Indians and are looked to for the wisdom and experience they have acquired over the years, and this may help account for their low suicide rate. Such high regard is in sharp contrast to the loss of status often experienced by elderly white Americans.

Similarly, the suicide rate is only one-third as high among elderly African Americans as among elderly white Americans (Joe et al., 2014; Barnes, 2010). One reason for this low suicide rate may be the pressures faced by African Americans, of whom it is sometimes said: “only the strongest survive” (Seiden, 1981). Those who reach an advanced age often have overcome significant adversity, and many feel proud of what they have accomplished. Because reaching old age is not in itself a form of success for white Americans, their attitude toward aging may be more negative. Another possible explanation is that aged African Americans have successfully overcome the rage that prompts many suicides in younger African Americans.

**Treatment and Suicide**

Treatment of suicidal people falls into two major categories: *treatment after suicide has been attempted* and *suicide prevention*. Treatment may also be beneficial to relatives and friends of those who commit or attempt to commit suicide. Indeed, their feelings of loss, guilt, and anger after a suicide fatality or attempt can be intense (Feigelman & Feigelman, 2011). However, the discussion here is limited to the treatment afforded suicidal people themselves.
In ancient Greece, citizens with a grave illness or mental anguish could obtain official permission from the Senate to take their own lives (Humphry & Wickett, 1986). In contrast, most Western countries have traditionally discouraged suicide, based on their belief in the “sanctity of life” (Dickens et al., 2008). Today, however, a person’s “right to commit suicide” is receiving more and more support from the public, particularly in connection with ending great pain and terminal illness (Breitbart et al., 2011; Werth, 2004, 2000).

WHO SUPPORTS THE RIGHT OF TERMINALLY ILL PATIENTS TO COMMIT SUICIDE?

EUTHANASIA AND PHYSICIAN-ASSISTED SUICIDE

Euthanasia, also called “mercy killing,” is the practice of killing someone who is terminally sick or badly injured to stop the suffering. Euthanasia is not necessarily initiated by the patient. Physician-assisted suicide is a particular form of euthanasia, in which a physician helps a patient to end his or her life, in response to the patient’s request.

Should physicians provide indirect or direct assistance?
Physicians may advise patients about how to end their life (indirect assistance) or may actually end a patient’s life (direct assistance). Many people who support physician-assisted suicide remain uncomfortable with the prospect of a doctor directly inducing a patient’s death.

WHERE IS EUTHANASIA AND PHYSICIAN-ASSISTED SUICIDE LEGAL?

In 2001 the Netherlands legalized physician-assisted suicide and euthanasia. It is the only country where both are legal. (Onwuteaka-Philipsen et al., 2012; Schadenberg, 2012).

Some studies from Belgium and the Netherlands show significant numbers of deaths by euthanasia “without explicit request or consent.” (Onwuteaka-Philipsen et al., 2012; Schadenberg, 2012).

In 1997 Oregon passed the first U.S. law to legalize physician-assisted suicide. Since then, more than 500 Oregonians have used this law to end their lives.

Switzerland, where assisted suicide was made legal in 1942, is the only country where nonphysicians may assist. (Thomasson, 2012).

Many terminally ill foreigners—particularly from Germany, France, and Britain—travel to Switzerland to commit suicide. (Thomasson, 2012)
What Treatments Are Used After Suicide Attempts?

After a suicide attempt, most victims need medical care. Close to one-half million people in the United States are admitted to a hospital each year for injuries resulting from efforts to harm themselves (AFSP, 2014). Some are left with severe injuries, brain damage, or other medical problems. Once the physical damage is treated, psychotherapy or drug therapy may begin, on either an inpatient or outpatient basis.

Unfortunately, even after trying to kill themselves, many suicidal people fail to receive systematic follow-up care (Miret et al., 2009; Beautrais et al., 2000). In one study, for example, one-third of adolescent suicide attempters reported that they had not received any help after trying to end their lives (Larsson & Ivarsson, 1998). In some cases, health care professionals are at fault for this lack of follow-up. In others, the person who has attempted suicide refuses therapy. According to one review, the average number of therapy sessions attended by teenagers who receive follow-up care is 8; around 18 percent of such teens terminate treatment against their therapists’ advice (Spirito et al., 2011).

The goals of therapy for those who have attempted suicide are to keep the individuals alive, reduce their psychological pain, help them achieve a nonsuicidal state of mind, provide them with hope, and guide them to develop better ways of handling stress (Rudd & Brown, 2011). Various therapies have been employed, including drug, psychodynamic, cognitive-behavioral, group, and family therapies (Baldessarini & Tondo, 2011, 2007; Spirito et al., 2011). Treatment does appear to help. Studies have found that 30 percent of suicide attempters who do not receive treatment try again, compared with 16 percent of patients in treatment (Nordstrom et al., 1995; Allard et al., 1992).

Research indicates that cognitive-behavioral therapy may be particularly helpful for suicidal people (Brown et al., 2011, 2010; Ghahramanlou-Holloway et al., 2011, 2008). This type of therapy focuses largely on the painful thoughts, sense of hopelessness, dichotomous thinking, poor coping skills, weak problem-solving abilities, and other cognitive and behavioral features that characterize suicidal people. Using elements of Beck’s cognitive therapy (see pages 257–261), the therapists may help their suicidal clients to assess, challenge, and change many of their negative attitudes and illogical thinking processes. Applying the principles of mindfulness-based cognitive therapy (see pages 74, 261), the therapists may also guide the clients to become acutely aware of the painful thoughts and feelings that stream through their minds and to accept many such thoughts and feelings rather than try to eliminate them. Acceptance of this kind is expected to increase the clients’ tolerance of psychological distress. And finally, employing therapy exercises, homework assignments, and other cognitive-behavioral tools, the therapists may try to teach clients better coping and problem-solving skills.

What Is Suicide Prevention?

During the past 50 years, emphasis around the world has shifted from suicide treatment to suicide prevention. In some respects this change is most appropriate: the last opportunity to keep many potential suicide victims alive comes before their first attempt.

The first suicide prevention program in the United States was founded in Los Angeles in 1955; the first in England, called the Samaritans, was started in 1953. There are now hundreds of suicide prevention centers in the United States and England. In addition, many of today’s mental health centers, hospital emergency rooms, pastoral counseling centers, and poison control centers include suicide prevention programs among their services.

There are also hundreds of suicide hotlines, 24-hour-a-day telephone services, in the United States (Lester, 2011). Callers reach a counselor, typically a
A paraprofessional—a person trained in counseling but without a formal degree—who provides services under the supervision of a mental health professional.

Suicide prevention programs and hotlines respond to suicidal people as individuals in crisis—that is, under great stress, unable to cope, feeling threatened or hurt, and interpreting their situations as unchangeable. Thus the programs offer crisis intervention: they try to help suicidal people see their situations more accurately, make better decisions, act more constructively, and overcome their crises (Lester, 2011). Because crises can occur at any time, the centers advertise their hotlines and also welcome people who walk in without appointments (see MindTech below).

Some prevention centers and hotlines reach out to particular suicidal populations. The Trevor Lifeline, for example, is a nationwide, around-the-clock hotline available for LGBTQ (lesbian, gay, bisexual, transgender, and questioning) teenagers...
who are thinking about suicide. This hotline is one of several services offered by the Trevor Foundation, a wide-reaching organization dedicated to providing support, guidance, and information and promoting acceptance of LGBTQ teens.

The public sometimes confuses suicide prevention centers and hotlines with online chat rooms and forums (message boards) to which some suicidal people turn. However, such online sites operate quite differently, and in fact, most of them do not seek out suicidal people or try to prevent suicide. Typically, these chat rooms (where users communicate in real time) and forums (where users post messages without interacting directly) are not prepared to deal with suicidal people, do not offer face-to-face support, do not involve professionals or paraprofessionals, and do not have ways of keeping out malevolent users.

Today, suicide prevention takes place not only at prevention centers and hotlines but also in therapists’ offices. Suicide experts encourage all therapists to look for and address signs of suicidal thinking in their clients, regardless of the broad reasons that the clients are seeking treatment (McGlothlin, 2008). With this in mind, a number of guidelines have been developed to help therapists effectively uncover, assess, prevent, and treat suicidal thinking and behavior in their daily work (Van Orden et al., 2008; Shneidman & Farberow, 1968).

Although specific techniques vary from therapist to therapist and from prevention center to prevention center, the approach developed originally by the Los Angeles Suicide Prevention Center continues to reflect the goals and techniques of many clinicians and organizations. During the initial contact at the center, the counselor has several tasks:

**Establish a Positive Relationship** As callers must trust counselors in order to confide in them and follow their suggestions, counselors try to set a positive and comfortable tone for the discussion. They convey that they are listening, understanding, interested, nonjudgmental, and available.

**Understand and Clarify the Problem** Counselors first try to understand the full scope of the caller’s crisis and then help the person see the crisis in clear and constructive terms. In particular, they try to help callers see the central issues and the transient nature of their crises and recognize the alternatives to suicide.

**Assess Suicide Potential** Crisis workers at the Los Angeles Suicide Prevention Center fill out a questionnaire, often called a lethality scale, to estimate the caller’s potential for suicide. It helps them determine the degree of stress the caller is under, the caller’s relevant personality characteristics, how detailed the suicide plan is, the severity of symptoms, and the coping resources available to the caller.

**Assess and Mobilize the Caller’s Resources** Although they may view themselves as ineffectual, helpless, and alone, people who are suicidal usually have many strengths and resources, including relatives and friends. It is the counselor’s job to recognize, point out, and activate those resources.

**Formulate a Plan** Together the crisis worker and caller develop a plan of action. In essence, they are agreeing on a way out of the crisis, an alternative to suicidal action. Most plans include a series of follow-up counseling sessions over the next few days or weeks, either in person at the center or by phone. Each plan also requires the caller to take certain actions and make certain changes in his or her personal life. Counselors usually negotiate a no-suicide contract with the caller—a promise not to attempt suicide, or at least a promise to reestablish contact if the caller again considers suicide. Although such contracts are popular, their usefulness has been called into question in recent years (Rudd et al., 2006). In addition, if callers are in the midst of a suicide attempt, counselors try to find out their whereabouts and get medical help to them immediately.

Although crisis intervention may be sufficient treatment for some suicidal people, longer-term therapy is needed for most (Lester et al., 2007; Stolberg et al., 2012).
If a crisis intervention center does not offer this kind of therapy, its counselors will refer the clients elsewhere.

As the suicide prevention movement spread during the 1960s, many clinicians came to believe that crisis intervention techniques should also be applied to problems other than suicide. Crisis intervention has emerged during the past several decades as a respected form of treatment for such wide-ranging problems as drug and alcohol abuse, rape, and spouse abuse.

Yet another way to help prevent suicide may be to reduce the public’s access to common means of suicide (Lester, 2011). In 1960, for example, around 12 of every 100,000 people in Britain killed themselves by inhaling coal gas (which contains carbon monoxide). In the 1960s, Britain replaced coal gas with natural gas (which contains no carbon monoxide) as an energy source, and by the mid-1970s the rate of coal gas suicide fell to 0 (Maris, 2001). In fact, England’s overall rate of suicide, at least for older people, dropped as well. On the other hand, the Netherlands’ drop in gas-induced suicides was compensated for by an increase in other methods, particularly drug overdoses.

Similarly, ever since Canada passed a law in the 1990s restricting the availability of and access to certain firearms, there has been a decrease in firearm suicides across the country (Leenaars, 2007). Some studies suggest that this decrease has not been displaced by increases in other kinds of suicides; other studies, however, have found an increase in the use of other suicide methods (Caron, Julien, & Huang, 2008). Thus, although many clinicians hope that measures such as gun control, safer medications, better bridge barriers, and car emission controls will lower suicide rates, there is no guarantee that they will.

Do Suicide Prevention Programs Work?

It is difficult for researchers to measure the effectiveness of suicide prevention programs (Sanburn, 2013; Lester, 2011). There are many kinds of programs, each with its own procedures and each serving populations that vary in number, age, and the like. Communities with high suicide risk factors, such as a high elderly population or economic problems, may continue to have higher suicide rates than other communities regardless of the effectiveness of their local prevention centers.

Do suicide prevention centers reduce the number of suicides in a community? Clinical researchers do not know (Sanburn, 2013; Lester, 2011). Studies comparing local suicide rates before and after the establishment of community prevention centers have yielded different findings. Some find a decline in a community’s suicide rates, others no change, and still others an increase (De Leo & Evans, 2004; Leenaars & Lester, 2004). Of course, even an increase may represent a positive impact, if it is lower than the larger society’s overall increase in suicidal behavior.

Do suicidal people contact prevention centers? Apparently only a small percentage do (Sanburn, 2013). Moreover, the typical caller to an urban prevention center appears to be young, African American, and female, whereas the greatest number of suicides are committed by older white men (Maris, 2001; Lester, 2000, 1989, 1972). A key problem is that people who are suicidal do not necessarily admit to or talk about their feelings in discussions with others, even with professionals (Stolberg et al., 2002).

Prevention programs do seem to reduce the number of suicides among those high-risk people who do call. One study identified
8,000 high-risk individuals who contacted the Los Angeles Suicide Prevention Center (Farberow & Litman, 1970). Approximately 2 percent of these callers later committed suicide, compared with the 6 percent suicide rate usually found in similar high-risk groups. Clearly, centers need to be more visible and available to people who are thinking of suicide. The growing number of advertisements and announcements on the Web, television, radio, and billboards indicate movement in this direction (Oliver et al., 2008).

Many theorists have called for more effective public education about suicide as the ultimate form of prevention, and a number of suicide education programs have emerged. Most of these programs take place in schools and concentrate on students and their teachers (Schilling et al., 2014; Mann & Currier, 2011; Van Orden et al., 2008). There are also a growing number of online sites that provide education about suicide—targeting troubled persons, their family members, and friends. (Lai et al., 2014). These offerings often differ in content, curriculum, and style of presentation, but they all share the same goal and agree with the following statement by Shneidman:

"The primary prevention of suicide lies in education. The route is through teaching one another and . . . the public that suicide can happen to anyone, that there are verbal and behavioral clues that can be looked for . . . and that help is available. . . . In the last analysis, the prevention of suicide is everybody’s business."

(Shneidman, 1985, p. 238)

**PUTTING IT...together**

Psychological and Biological Insights Lag Behind

Once a mysterious and hidden problem, hardly acknowledged by the public and barely investigated by professionals, suicide today is the focus of much attention. During the past 40 years in particular, investigators have learned a great deal about this life-or-death problem.

**Raising public awareness**

In order to better educate the public about suicide’s far reach, many organizations now hold special remembrances. Here the organization Active Minds sponsors an exhibit of 1,100 backpacks at Montclair State University in New Jersey. The backpacks represent the number of college students who die by suicide each year.
In contrast to most other problems covered in this textbook, suicide has received much more examination from the sociocultural model than from any other. Sociocultural theorists have, for example, highlighted the importance of societal change and stress, national and religious affiliation, marital status, gender, race, and the mass media. The insights and information gathered by psychological and biological researchers have been more limited.

Although sociocultural factors certainly shed light on the general background and triggers of suicide, they typically leave us unable to predict that a given person will attempt suicide. Clinicians do not yet fully understand why some people kill themselves while others in similar circumstances manage to find better ways of addressing their problems. Psychological and biological insights must catch up to the sociocultural insights if clinicians are truly to explain and understand suicide.

Treatments for suicide also pose some difficult problems. Clinicians have yet to develop clearly successful therapies for suicidal people. Although suicide prevention programs certainly show the clinical field’s commitment to helping those who are suicidal, it is not yet clear how much such programs actually reduce the overall risk or rate of suicide.

At the same time, the growth in the amount of research on suicide offers great promise. And perhaps most promising of all, clinicians are now enlisting the public in the fight against this problem. They are calling for broader public education about suicide—for programs aimed at both young and old. It is reasonable to expect that the current commitment will lead to a better understanding of suicide and to more successful interventions. Such goals are of importance to everyone. Although suicide itself is typically a lonely and desperate act, the impact of such acts is very broad indeed.

**SUMMING UP**

- **WHAT IS SUICIDE?** Suicide is a self-inflicted death in which a person makes an intentional, direct, and conscious effort to end his or her life. Four kinds of people who intentionally end their lives have been distinguished: the death seeker, the death initiator, the death ignorer, and the death darer. pp. 283–287

- **RESEARCH STRATEGIES** Two major strategies are used in the study of suicide: retrospective analysis (a psychological autopsy) and the study of people who survive suicide attempts, on the assumption that they are similar to those who commit fatal suicides. Each strategy has limitations. p. 287

- **PATTERNS AND STATISTICS** Suicide ranks among the top 10 causes of death in Western societies. Rates vary from country to country. One reason seems to be cultural differences in religious affiliation, beliefs, and degree of devoutness. Suicide rates also vary according to race, gender, and marital status. pp. 288–290

- **FACTORS THAT TRIGGER SUICIDE** Many suicidal acts are triggered by the current events or conditions in a person’s life. The acts may be triggered by recent stressors, such as loss of a loved one and job loss, or long-term stressors, such as serious illness, an abusive environment, and job stress. They may also be preceded by changes in mood or thought, particularly increases in one’s sense of hopelessness. In addition, the use of alcohol or other kinds of substances, mental disorders, or news of another’s suicide may precede suicide attempts. pp. 290–296
EXPLANATIONS FOR SUICIDE The leading explanations for suicide come from the psychodynamic, sociocultural, and biological models. Each has received only limited support. Psychodynamic theorists believe that suicide usually results from depression and self-directed anger. Emile Durkheim's sociocultural theory defines three categories of suicide, based on the person's relationship with society: egoistic, altruistic, and anomic suicides. And biological theorists suggest that the activity of the neurotransmitter serotonin is particularly low in people who commit suicide. pp. 296–300

SUICIDE IN DIFFERENT AGE GROUPS The likelihood of suicide varies with age. It is uncommon among children, although it has been increasing in that group during the past several decades.

Suicide by adolescents is more common than suicide by children, but the numbers have been decreasing over the past decade. Adolescent suicide has been linked to clinical depression, anger, impulsiveness, major stress, and adolescent life itself. Suicide attempts by this age group are numerous. The high attempt rate among adolescents and young adults may be related to the growing number and proportion of young people in the general population, the weakening of family ties, the increased availability and use of drugs among young people, and the broad media coverage of suicide attempts by the young. The rate of suicide among American Indian teens is twice as high as that among white American teens and three times as high as those of African, Hispanic, and Asian American teens.

In Western societies, the elderly are more likely to commit suicide than people in any other age group. The loss of health, friends, control, and status may produce feelings of hopelessness, loneliness, depression, or inevitability in this age group. pp. 300–307

TREATMENT AND SUICIDE Treatment may follow a suicide attempt. When it does, therapists try to help the person achieve a nonsuicidal state of mind and develop better ways of handling stress and solving problems.

Over the past 50 years, emphasis has shifted to suicide prevention. Suicide prevention programs include 24-hour-a-day hotlines and walk-in centers staffed largely by paraprofessionals. During their initial contact with a suicidal person, counselors try to establish a positive relationship, to understand and clarify the problem, to assess the potential for suicide, to assess and mobilize the caller's resources, and to formulate a plan for overcoming the crisis. Beyond such crisis intervention, most suicidal people also need longer-term therapy. In a still broader attempt at prevention, suicide education programs for the public are on the increase. pp. 307–313

Still at Risk
Approximately 4 percent of all suicides are committed by people who are inpatients at mental hospitals or other psychiatric facilities.
Disorders Featuring Somatic Symptoms

It was Wednesday. The big day. Midterms in history and physics back to back, beginning at 11:30, and an oral presentation in psych at 3:30. Jarell had been preparing for, and dreading, this day for weeks, calling it “D-Day” to his friends. He had been up until 3:30 a.m. the night before, studying, trying to nail everything down. It seemed like he had fallen asleep only minutes ago, yet here it was 9:30 a.m. and the killer day was under way.

As soon as he woke, Jarell felt a tight pain grip his stomach. He also noticed buzzing in his ears, a lightheadedness, and even aches throughout his body. He wasn’t surprised, given the day he was about to face. One test might bring a few butterflies of anxiety; two and a presentation were probably good for a platoon of dragonflies. As he tried to get going, however, Jarell began to suspect that this was more than butterflies. His stomach pain soon turned to spasms, and his lightheadedness became outright dizziness. He could barely make it to the bathroom without falling. Thoughts of breakfast made him nauseous. He knew he couldn’t keep anything down.

Jarell began to worry, even panic. This was hardly the best way to face what was in store for him today. He tried to shake it off, but the symptoms stayed. Finally, his roommate convinced him that he had better go to a doctor. At 10:30, just an hour before the first exam, he entered the big brick building called “Student Health.” He felt embarrassed, like a wimp, but what could he do? Persevering and taking two tests under these conditions wouldn’t prove anything—except maybe that he was foolish.

Psychological factors may contribute to somatic, or bodily, illnesses in a variety of ways. The physician who sees Jarell has some possibilities to sort out. Jarell could be faking his pain and dizziness to avoid taking some tough tests. Alternatively, he may be imagining his illness, that is, faking to himself. Or he could be overreacting to his pain and dizziness. Then again, his physical symptoms could be both real and significant, yet triggered by stress: whenever he feels extreme pressure, such as a person can feel before an important test, Jarell’s gastric juices may become more active and irritate his intestines, and his blood pressure may rise and cause him to become dizzy. Finally, he may be coming down with the flu. Even this “purely medical” problem, however, could be linked to psychological factors. Perhaps weeks of constant worry about the exams and presentation have weakened Jarell’s body so that he was not able to fight off the flu virus. Whatever the diagnosis, Jarell’s state of mind is affecting his body. The physician’s view of the role played by psychological factors will in turn affect the treatment Jarell receives.

You have observed throughout the book that psychological disorders frequently have physical causes. Abnormal neurotransmitter activity, for example, contributes to generalized anxiety disorder, panic disorder, and posttraumatic stress disorder. Is it surprising, then, that bodily illnesses may have psychological causes? Today’s clinicians recognize the wisdom of Socrates’ fourth century B.C.E. assertion: “You should not treat body without soul.”

The idea that psychological factors may contribute to somatic illnesses has ancient roots, yet it had few proponents before the twentieth century. It was particularly unpopular during the Renaissance, when medicine began to
be a physical science and scientists became committed to the pursuit of objective “fact” (Conti, 2014). At that time, the mind was considered the territory of priests and philosophers, not of physicians and scientists. By the seventeenth century, the French philosopher René Descartes went so far as to claim that the mind, or soul, is totally separate from the body—a position called mind-body dualism. Over the course of the twentieth century, however, numerous studies convinced medical and clinical researchers that psychological factors such as stress, worry, and perhaps even unconscious needs can contribute in major ways to bodily illness.

DSM-5 lists a number of psychological disorders in which bodily symptoms or concerns are the primary features of the disorders. These include factitious disorder, in which patients intentionally produce or feign physical symptoms; conversion disorder, which is characterized by medically unexplained physical symptoms that affect voluntary motor or sensory functioning; somatic symptom disorder, in which people become disproportionately concerned, distressed, and disrupted by bodily symptoms; illness anxiety disorder, in which people who are anxious about their health become preoccupied with the notion that they are seriously ill despite the absence of bodily symptoms; and psychological factors affecting other medical conditions, disorders in which psychological factors adversely affect a person’s general medical condition.

Factitious Disorder

Like Jarell, people who become physically sick usually go to a physician. Sometimes, however, the physician cannot find a medical cause for the problem and may suspect that other factors are involved. Perhaps the patient is malingering—intentionally feigning illness to achieve some external gain, such as financial compensation or deferment from military service (Crighton et al., 2014).

Alternatively, a patient may intentionally produce or feign physical symptoms from a wish to be a patient; that is, the motivation for assuming the sick role may be the role itself (Lela et al., 2013). Physicians would then decide that the patient is manifesting factitious disorder (see Table 10-1). Consider, for example, the symptoms of this lab technician:

A 29-year-old female laboratory technician was admitted to the medical service via the emergency room because of bloody urine. The patient said that she was being treated for lupus erythematosus by a physician in a different city. She also mentioned that she had had Von Willebrand’s disease (a rare hereditary blood disorder) as a child. On the third day of her hospitalization, a medical student mentioned to the resident that she had seen this patient several weeks before at a different hospital in the area, where the patient had been admitted for the same problem. A search of the patient’s belongings revealed a cache of anticoagulant medication. When confronted with this information she refused to discuss the matter and hurriedly signed out of the hospital against medical advice.

(Shitzer et al., 1981, p. 33)

Factitious disorder is known popularly as Munchausen syndrome, a label derived from the exploits of Baron von Münchhausen, an eighteenth-century cavalry officer who journeyed from tavern to tavern in Europe telling fantastical tales about his supposed military adventures (Ayoub, 2010). People with factitious disorder often go to extremes to create the appearance of illness (APA, 2013). Many give themselves medications secretly. Some, like the woman just described, inject drugs
to cause bleeding (Uzuner et al., 2013). Still others use laxatives to produce chronic diarrhea. High fevers are especially easy to create. In a classic study of patients with prolonged mysterious fever, more than 9 percent were eventually diagnosed with factitious disorder (Feldman et al., 1994).

People with factitious disorder often research their supposed ailments and are impressively knowledgeable about medicine (Miner & Feldman, 1998). Many eagerly undergo painful testing or treatment, even surgery (McDermott et al., 2012). When confronted with evidence that their symptoms are factitious, they typically deny the charges and leave the hospital; they may enter another hospital the same day. Clinical researchers have had a hard time determining the prevalence of factitious disorder, since patients with the disorder hide the true nature of their problem (Kenedi, Sames, & Paice, 2013). Overall, the pattern appears to be more common in women than men. Men, however, may more often have severe cases. The disorder usually begins during early adulthood.

Factitious disorder seems to be particularly common among people who (1) received extensive treatment for a medical problem as children, (2) carry a grudge against the medical profession, or (3) have worked as a nurse, laboratory technician, or medical aide. A number have poor social support, few enduring social relationships, and little family life (McDermott et al., 2012; Feldman et al., 1994).

The precise causes of factitious disorder are not understood (Lawlor & Kirakowski, 2014), although clinical reports have pointed to factors such as depression, unsupportive parental relationships during childhood, and an extreme need for social support that is not otherwise available (McDermott et al., 2012; Ozden & Canat, 1999; Feldman et al., 1994). Nor have clinicians been able to develop dependably effective treatments for this disorder (McDermott et al., 2012; Feldman & Feldman, 1995).

Psychotherapists and medical practitioners often report feelings of annoyance or anger toward people with factitious disorder, feeling that these people are, at the very least, wasting their time. Yet people with the disorder feel they have no control over the problem, and they often experience great distress.
In a related pattern, factitious disorder imposed on another, known popularly as Munchausen syndrome by proxy, parents or caretakers make up or produce physical illnesses in their children, leading in some cases to repeated painful diagnostic tests, medication, and surgery (Flaherty & Macmillan, 2013; Ayoub, 2010). If the children are removed from their parents and placed in the care of others, their symptoms disappear (see PsychWatch below).

Should society treat or punish those parents who produce Munchausen syndrome by proxy in their children?

**(PsychWatch)**

Munchausen Syndrome by Proxy

Tanya, a mere 8 years old, had been hospitalized 127 times over the past five years and undergone 28 different medical procedures—from removal of her spleen to exploratory surgery of her intestines. Two months ago, her mother was arrested, charged with child endangerment. When Tanya’s grandmother gently tried to talk to the girl about her mother’s arrest (or, as she put, “Mommy’s going away”), Tanya was upset and confused.

“I miss Mommy so much. She’s the best person in the world. She spent all her time with me in the hospital. She’s the one who always took care of me. She always fed me through the tube. She made the doctors pay attention to me. She’s the reason I could get better. Mommy even put up the Facebook page, and that’s why I got all those messages from everyone. People who didn’t even know me told me that they’re praying for me.

“It’s not fair. She’s gone, and they won’t let me see her. I just don’t understand. Daddy doesn’t like her anymore. They say Mommy was making me feel bad, putting bad stuff in my tube. I heard Daddy saying that’s why I feel better now with Mommy away. But I know there’s no way Mommy made me feel that bad. She’d have to hate me, but she loves me. Now that the Facebook page is gone I need her more than ever. Everyone else forgot about me.”

Cases like Tanya’s have horrified the public and called attention to Munchausen syndrome by proxy. This form of factitious disorder is caused by a caregiver who uses various techniques to induce symptoms in a child—giving the child drugs, tampering with medications, contaminating a feeding tube, or even smothering the child, for example. The illness can take almost any form, but the most common symptoms are bleeding, seizures, asthma, comas, diarrhea, vomiting, “accidental” poisonings, infections, fevers, and sudden infant death syndrome.

Between 6 and 30 percent of the victims of Munchausen syndrome by proxy die as a result of their symptoms, and 8 percent of those who survive are permanently disfigured or physically impaired (Flaherty & Macmillan, 2013; Ayoub, 2006; Mitchell, 2001). Psychological, educational, and physical development are also affected (Schreier et al., 2010).

The syndrome is very hard to diagnose and may be more common than clinicians once thought (Asraf & Thevasagayam, 2014; Scheuerman et al., 2013; Feldman, 2004). The parent (usually the mother) seems to be so devoted and caring that others sympathize with and admire her. Yet the physical problems disappear when the child and parent are separated (Scheuerman et al., 2013). In many cases, siblings of the sick child are also victimized (Ayoub, 2010, 2006).

What kind of parent carefully inflicts pain and illness on her own child? The typical Munchausen mother is emotionally needy: she craves the attention and praise she receives for her devoted care of her sick child (Asraf & Thevasagayam, 2014; Ayoub, 2010; Noeker, 2004). She may have little social support outside the medical system. Often the mothers have a medical background of some kind—perhaps having worked formerly in a doctor’s office. A number have medically unexplained physical problems of their own (Bass & Jones, 2011). Typically they deny their actions, even in the face of clear evidence, and refuse to undergo therapy (Bluglass, 2001).

Law enforcement authorities approach Munchausen syndrome by proxy as a crime—a carefully planned form of child abuse (Flaherty & Macmillan, 2013; Schreier et al., 2010). They almost always require that the child be separated from the mother (Ayoub, 2010, 2006). At the same time, a parent who resorts to such actions is seriously disturbed and greatly in need of clinical help. Thus clinical researchers and practitioners must now work to develop clearer insights and more effective treatments for such parents and their young victims.
Disorders Featuring Somatic Symptoms

Conversion Disorder and Somatic Symptom Disorder

When a bodily ailment has an excessive and disproportionate impact on the person, has no apparent medical cause, or is inconsistent with known medical diseases, physicians may suspect a conversion disorder or a somatic symptom disorder. Consider the plight of Brian:

Brian was spending Saturday sailing with his wife, Helen. The water was rough but well within what they considered safe limits. They were having a wonderful time and really didn’t notice that the sky was getting darker, the wind blowing harder, and the sailboat becoming more difficult to control. After a few hours of sailing, they found themselves far from shore in the middle of a powerful and dangerous storm.

The storm intensified very quickly. Brian had trouble controlling the sailboat amidst the high winds and wild waves. He and Helen tried to put on the safety jackets they had neglected to wear earlier, but the boat turned over before they were finished. Brian, the better swimmer of the two, was able to swim back to the overturned sailboat, grab the side, and hold on for dear life, but Helen simply could not overcome the rough waves and reach the boat. As Brian watched in horror and disbelief, his wife disappeared from view.

After a time, the storm began to lose its strength. Brian managed to right the sailboat and sail back to shore. Finally he reached safety, but the personal consequences of this storm were just beginning. The next days were filled with pain and further horror: the Coast Guard finding Helen’s body . . . texts, emails, and conversations with family members and friends . . . self-blame . . . grief . . . and more. Compounding this horror, the accident had left Brian with a severe physical impairment—he could not walk properly. He first noticed this terrible impairment when he sailed the boat back to shore, right after the accident. As he tried to run from the sailboat to get help, he could hardly make his legs work. By the time he reached the nearby beach restaurant, all he could do was crawl. Two patrons had to lift him to a chair, and after he told his story and the authorities were alerted, he had to be taken to a hospital.

At first Brian and the hospital physician assumed that he must have been hurt during the accident. One by one, however, the hospital tests revealed nothing—no broken bones, no spinal damage, nothing. Nothing that could explain such severe impairment.

By the following morning, the weakness in his legs had become near paralysis. Because the physicians could not pin down the nature of his injuries, they decided to keep his activities to a minimum. He was not allowed to talk long with the police. To his deep regret, he was not even permitted to attend Helen’s funeral.

The mystery deepened over the following days and weeks. As Brian’s paralysis continued, he became more and more withdrawn, unable to see more than a few friends and family members and unable to take care of the many unpleasant tasks attached to Helen’s death. He could not bring himself to return to work or get on with his life. Texting, emailing, and phone conversations slowly came to a halt. At most, he was able to go online and surf the Internet. Almost from the beginning, Brian’s paralysis had left him self-absorbed and drained of emotion, unable to look back and unable to move forward.

Conversion Disorder

Eventually, Brian received a diagnosis of conversion disorder (see Table 10-2). People with this disorder display physical symptoms that affect voluntary motor or sensory functioning, but the symptoms are inconsistent with known medical

### Dx Checklist

**Conversion Disorder**

1. Presence of at least one symptom or deficit that affects voluntary or sensory function.
2. Symptoms are found to be inconsistent with known neurological or medical disease.
3. Significant distress or impairment.

(Information from: APA, 2013)
diseases (APA, 2013). In short, they have neurological-like symptoms—for example, paralysis, blindness, or loss of feeling—that have no neurological basis.

Conversion disorder often is hard, even for physicians, to distinguish from a genuine medical problem (Dandachi-FitzGerald et al., 2013; Parish & Yutzy, 2011). In fact, it is always possible that a diagnosis of conversion disorder is a mistake and that the patient’s problem has an undetected neurological or other medical cause (de Schipper et al., 2014). Because conversion disorders are so similar to “genuine” medical ailments, physicians sometimes rely on oddities in the patient’s medical picture to help distinguish the two (Boone, 2011). The symptoms of a conversion disorder may, for example, be at odds with the way the nervous system is known to work. In a conversion symptom called glove anesthesia, numbness begins sharply at the wrist and extends evenly right to the fingertips. As Figure 10-1 shows, real neurological damage is rarely as abrupt or evenly spread out.

The physical effects of a conversion disorder may also differ from those of the corresponding medical problem (Scheidt et al., 2014; Dandachi-FitzGerald et al., 2013). For example, when paralysis from the waist down, or paraplegia, is caused by damage to the spinal cord, a person’s leg muscles may atrophy, or waste away, unless physical therapy is applied. The muscles of people whose paralysis is the result of a conversion disorder, in contrast, do not usually atrophy. Perhaps those with a conversion disorder exercise their muscles without being aware that they are doing so. Similarly, people with conversion blindness have fewer accidents than people who are organically blind, an indication that they have at least some vision even if they are unaware of it.

Unlike people with factitious disorder, those with conversion disorder do not consciously want or purposely produce their symptoms. Like Brian, they almost always believe that their problems are genuinely medical (Lahman et al., 2010). This pattern is called “conversion” disorder because clinical theorists used to believe that individuals with the disorder are converting psychological needs or conflicts into their neurological-like symptoms. Although some theorists still believe that conversion is at work in the disorder, others prefer alternative kinds of explanations, as you’ll see later.

Conversion disorder usually begins between late childhood and young adulthood; it is diagnosed at least twice as often in women as in men (Raj et al., 2014).
It typically appears suddenly, at times of extreme stress, and lasts a matter of weeks (Kukla et al., 2010). Some research suggests that people who develop the disorder tend to be generally suggestible (see MindTech below); many are highly susceptible to hypnotic procedures, for example (Parish & Yutzey, 2011; Roelofs et al., 2002). It is thought to be a rare problem, occurring in at most 5 of every 1,000 persons.

**MindTech**

**Can Social Media Spread “Mass Hysteria”?**

In Chapter 1, you read about outbreaks during the Middle Ages of mass madness, also called mass hysteria or mass psychogenic illness, in which large numbers of people would share psychological or physical maladies that had no apparent cause (see pages 10–11). Periodic outbreaks of mysterious illnesses are not a thing of the past. In fact, the number of such cases currently seems to be on the increase, particularly cases involving physical ailments that mimic nervous system disorders (Vitelli, 2013). Most of today’s clinicians consider these outbreaks to be a form of conversion disorder.

New Zealand sociologist Robert Bartholomew (2013) has been studying mass psychogenic illnesses that date back over 400 years, and he argues that social media is a major factor in the current increase. One notable 2011 outbreak in Le Roy, New York, demonstrates the suggestive role played by social media (Vitelli, 2013; Dominus, 2012). A local high school student began having facial spasms. After several weeks, others started having similar symptoms, and eventually 18 girls from the high school were affected. Apparently, a number of these teenagers began to show symptoms after they saw a YouTube video featuring a girl from a nearby town who had significant tics. Doctors eventually concluded that this was an example of mass psychogenic illness.

An unusual aspect of the Le Roy case that further points to the likely role of social media is that in addition to the 18 high school girls, a 36-year-old woman with no connection to the teenage girls also began having the same symptoms during the same period of time (NBC, 2012). She stated that she first saw the facts of the case on a Facebook post.

This case mirrors others in recent years, such as an outbreak of hiccups and vocal tics in early 2013 among teenagers in Danvers, Massachusetts, and the case of 400 garment workers in a Bangladesh factory who had severe gastrointestinal symptoms for which there was ultimately no physical explanation (Vitelli, 2013). In these and other cases, the symptoms seemed to be spread, at least in part, by social media exposure.

Bartholomew (2014) estimates that that these are but a few examples of hundreds of cases that occur in the United States alone each year. Moreover, he strongly believes that due to the power of social media, future outbreaks may be more numerous, wide ranging, and severe than any yet recorded. He notes that there is the “potential for a far greater or global episode, unless we quickly understand how social media is, for the first time, acting as the primary . . . agent of spread for conversion disorder.” As he points out, in the distant past “the local priests, who were . . . summoned to [treat mass psychogenic illnesses], faced a daunting task . . . but they were fortunate in one regard: they did not have to contend with mobile phones, Twitter, and Facebook.”

In what ways could social media itself help to prevent or reduce cases of mass psychogenic illness?
People with somatic symptom disorder become excessively distressed, concerned, and anxious about bodily symptoms that they are experiencing, and their lives are greatly disrupted by the symptoms (APA, 2013) (see Table 10-3). The symptoms last longer but are less dramatic than those found in conversion disorder. In some cases, the somatic symptoms have no known cause; in others, the cause can be identified. Either way, the person’s concerns are disproportionate to the seriousness of the bodily problems.

Like Sheila, people with a somatization pattern of somatic symptom disorder experience many long-lasting physical ailments—ailments that typically have little or no physical basis. This pattern, first described by Pierre Briquet in 1859, is also known as Briquet’s syndrome. A sufferer’s ailments often include pain symptoms (such as headaches or chest pain), gastrointestinal symptoms (such as nausea or
Disorders Featuring Somatic Symptoms

...diarrhea), sexual symptoms (such as erectile or menstrual difficulties), and neurological-type symptoms (such as double vision or paralysis).

People with a somatization pattern usually go from doctor to doctor in search of relief. They often describe their many symptoms in dramatic and exaggerated terms. Most also feel anxious and depressed (Dimsdale & Creed, 2010; Leiknes, Finset, & Moum, 2010). The pattern typically lasts for many years, fluctuating over time but rarely disappearing completely without therapy (Parish & Yutzy, 2011; Abbey, 2005).

Between 0.2 and 2.0 percent of all women in the United States may experience a somatization pattern in any given year, compared with less than 0.2 percent of men (North, 2005; APA, 2000). The pattern often runs in families; as many as 20 percent of the close female relatives of women with the pattern also develop it. It usually begins between adolescence and young adulthood.

Predominant Pain Pattern If the primary feature of somatic symptom disorder is pain, the person is said to have a predominant pain pattern. Patients with conversion disorder or another pattern of somatic symptom disorder may also experience pain, but it is the key symptom in this pattern. The source of the pain may be known or unknown. Either way, the concerns and disruption produced by the pain are disproportionate to its severity and seriousness.

Although the precise prevalence has not been determined, this pattern appears to be fairly common (Nickel et al., 2010). It may begin at any age, and women seem more likely than men to experience it (APA, 2000). Often it develops after an accident or during an illness that has caused genuine pain, which then takes on a life of its own. For example, Laura, a 36-year-old woman, reported pains that went far beyond the usual symptoms of her tubercular disease, called sarcoidosis:

Before the operation I would have little joint pains, nothing that really bothered me that much. After the operation I was having severe pains in my chest and in my ribs, and those were the type of problems I’d been having after the operation, that I didn’t have before. . . I’d go to an emergency room at night, 11:00, 12:00, 1:00 or so. I’d take the medicine, and the next day it stopped hurting, and I’d go back again. In the meantime this is when I went to the other doctors, to complain about the same thing, to find out what was wrong; and they could never find out what was wrong with me either. . . .

. . . At certain points when I go out or my husband and I go out, we have to leave early because I start hurting. . . A lot of times I just won’t do things because my chest is hurting for one reason or another. . . Two months ago when the doctor checked me and another doctor looked at the x-rays, he said he didn’t see any signs of the sarcoid then and that they were doing a study now, on blood and various things, to see if it was connected to sarcoid. . . .

(Green, 1985, pp. 60–63)

What Causes Conversion and Somatic Symptom Disorders?

For many years, conversion and somatic symptom disorders were referred to as hysterical disorders. This label was meant to convey the prevailing belief that excessive and uncontrolled emotions underlie the bodily symptoms found in these disorders.

Work by Ambroise-Auguste Liébault and Hippolyte Bernheim in the late nineteenth century helped foster the notion that such psychological factors were...
at the root of hysterical disorders. These researchers founded the Nancy School in Paris for the study and treatment of mental disorders. There they were able to produce hysterical symptoms in normal people—deafness, paralysis, blindness, and numbness—by hypnotic suggestion, and they could remove the symptoms by the same means (see Chapter 1). If hypnotic suggestion could both produce and reverse physical dysfunctioning, they concluded, hysterical disorders might themselves be caused by psychological processes.

Today’s leading explanations for conversion and somatic symptom disorders come from the psychodynamic, behavioral, cognitive, and multicultural models. None has received much research support, however, and the disorders are still poorly understood.

The Psychodynamic View As you read in Chapter 1, Freud’s theory of psychoanalysis began with his efforts to explain hysterical symptoms. Indeed, he was one of the few clinicians of his day to treat patients with these symptoms seriously, as people with genuine problems. After studying hypnosis in Paris, Freud became interested in the work of an older physician, Josef Breuer (1842–1925). Breuer had successfully used hypnosis to treat a woman he called Anna O., who suffered from hysterical deafness, disorganized speech, and paralysis (Ellenberger, 1972). On the basis of this and similar cases, Freud (1894) came to believe that hysterical disorders represented a conversion of underlying emotional conflicts into physical symptoms and concerns.

Observing that most of his patients with hysterical disorders were women, Freud centered his explanation of such disorders on the needs of girls during their phallic stage (ages 3 through 5). At that time in life, he believed, all girls develop a pattern of desires called the Electra complex: each girl experiences sexual feelings for her father and at the same time recognizes that she must compete with her mother for his affection. However, aware of her mother’s more powerful position and of cultural taboos, the child typically represses her sexual feelings and rejects these early desires for her father.

Why do the terms “hystera” and “hysterical” currently have such negative connotations in our society, as in “mass hysteria” and “hysterical personality”?
Freud believed that if a child’s parents overreact to her sexual feelings—with strong punishments, for example—the Electra conflict will be unresolved and the child may reexperience sexual anxiety throughout her life. Whenever events trigger sexual feelings, she may feel an unconscious need to hide them from both herself and others. Freud concluded that some women hide their sexual feelings by unconsciously converting them into physical symptoms and concerns.

Most of today’s psychodynamic theorists take issue with parts of Freud’s explanation of conversion and somatic symptom disorders (Nickel et al., 2010), but they continue to believe that sufferers of the disorders have unconscious conflicts carried forth from childhood, which arouse anxiety, and that they convert this anxiety into “more tolerable” physical symptoms (Brown et al., 2005).

Psychodynamic theorists propose that two mechanisms are at work in these disorders—primary gain and secondary gain. People derive primary gain when their bodily symptoms keep their internal conflicts out of awareness. During an argument, for example, a man who has underlying fears about expressing anger may develop a conversion paralysis of the arm, thus preventing his feelings of rage from reaching consciousness. People derive secondary gain when their bodily symptoms further enable them to avoid unpleasant activities or to receive sympathy from others. When, for example, a conversion paralysis allows a soldier to avoid combat duty or conversion blindness prevents the breakup of a relationship, secondary gain may be at work. Similarly, the conversion paralysis of Brian, the man who lost his wife in the boating accident, seemed to help him avoid many painful duties after the accident, such as attending her funeral and returning to work.

The Behavioral View Behavioral theorists propose that the physical symptoms of conversion and somatic symptom disorders bring rewards to sufferers (see Table 10-4). Perhaps the symptoms remove those with the disorders from an unpleasant relationship or perhaps the symptoms bring attention from other people (Witthöft & Hiller, 2010). In response to such rewards, the sufferers learn to display the bodily symptoms more and more prominently. Behaviorists also hold that

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**Disorders That Have Somatic Symptoms**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Voluntary Control of Symptoms?</th>
<th>Symptoms Linked to Psychosocial Factor?</th>
<th>An Apparent Goal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malingering</td>
<td>Yes</td>
<td>Maybe</td>
<td>Yes</td>
</tr>
<tr>
<td>Factitious disorder</td>
<td>Yes</td>
<td>Yes</td>
<td>No*</td>
</tr>
<tr>
<td>Conversion disorder</td>
<td>No</td>
<td>Yes</td>
<td>Maybe</td>
</tr>
<tr>
<td>Somatic symptom disorder</td>
<td>No</td>
<td>Yes</td>
<td>Maybe</td>
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<tr>
<td>Illness anxiety disorder</td>
<td>No</td>
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<td>No</td>
</tr>
<tr>
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<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Physical illness</td>
<td>No</td>
<td>Maybe</td>
<td>No</td>
</tr>
</tbody>
</table>

*Except for medical attention.
people who are familiar with an illness will more readily adopt its physical symptoms. In fact, studies find that many sufferers develop their bodily symptoms after they or their close relatives or friends have had similar medical problems (Marshall et al., 2007).

Clearly, the behavioral focus on the role of rewards is similar to the psychodynamic notion of secondary gain. The key difference is that psychodynamic theorists view the gains as indeed secondary—that is, as gains that come only after underlying conflicts produce the disorders. Behaviorists view them as the primary cause of the development of the disorders.

Like the psychodynamic explanation, the behavioral view of conversion and somatic symptom disorders has received little research support. Even clinical case reports only occasionally support this position. In many cases the pain and upset that surround the disorders seem to outweigh any rewards the symptoms might bring.

The Cognitive View

Some cognitive theorists propose that conversion and somatic symptom disorders are forms of communication, providing a means for people to express emotions that would otherwise be difficult to convey (Hallquist et al., 2010; Koh et al., 2005). Like their psychodynamic colleagues, these theorists hold that the emotions of people with the disorders are being converted into physical symptoms. They suggest, however, that the purpose of the conversion is not to defend against anxiety but to communicate extreme feelings—anger, fear, depression, guilt, jealousy—in a “physical language” that is familiar and comfortable for the person with the disorder.

According to this view, people who find it particularly hard to recognize or express their emotions are candidates for conversion and somatic symptom disorders. So are those who “know” the language of physical symptoms through firsthand experience with a genuine physical ailment. Because children are less able to express their emotions verbally, they are particularly likely to develop physical symptoms as a form of communication (Shaw et al., 2010). Like the other explanations, this cognitive view has not been widely tested or supported by research.

The Multicultural View

Most Western clinicians believe that it is inappropriate to produce or focus excessively on somatic symptoms in response to personal distress (Shaw et al., 2010; So, 2008; Escobar, 2004). That is, in part, why conversion and somatic symptom disorders are included in DSM-5. Some theorists believe, however, that this position reflects a Western bias—a bias that sees somatic reactions as an inferior way of dealing with emotions (Moldavsky, 2004; Fábrega, 1990).
In fact, the transformation of personal distress into somatic complaints is the norm in many non-Western cultures (Draguns, 2006; Kleinman, 1987). In such cultures, the formation of such complaints is viewed as a socially and medically correct—and less stigmatizing—reaction to life’s stressors. Studies have found very high rates of stress-caused bodily symptoms in non-Western medical settings throughout the world, including those in China, Japan, and Arab countries (Matsumoto & Juang, 2008). People throughout Latin America seem to display the most somatic reactions (Escobar, 2004, 1995; Escobar et al., 1998, 1992). Even within the United States, Hispanic Americans display more somatic reactions in the face of stress than do other populations.

The lesson to be learned from such multicultural findings is not that somatic reactions to stress are superior to psychological ones or vice versa, but rather, once again, that both bodily and psychological reactions to life events are often influenced by one’s culture. Overlooking this point can lead to knee-jerk mislabels or misdiagnoses.

How Are Conversion and Somatic Symptom Disorders Treated?

People with conversion and somatic symptom disorders usually seek psychotherapy only as a last resort. They believe that their problems are completely medical and at first reject all suggestions to the contrary (Lahmann et al., 2010). When a physician tells them that their symptoms or concerns have a psychological dimension, they often go to another physician. Eventually, however, many patients with these disorders do consent to psychotherapy, psychotropic drug therapy, or both (Raj et al., 2014).

Many therapists focus on the causes of these disorders (the trauma or anxiety tied to the physical symptoms) and apply insight, exposure, and drug therapies (Boone, 2011). Psychodynamic therapists, for example, try to help those with somatic symptoms become conscious of and resolve their underlying fears, thus eliminating the need to convert anxiety into physical symptoms (Nickel et al., 2010; Hawkins, 2004). Behavioral therapists use exposure treatments. They expose clients to features of the horrific events that first triggered their physical symptoms, expecting that the clients will become less anxious over the course of repeated exposures and more able to face those upsetting events directly rather than through physical channels (Stuart et al., 2008). And biological therapists use antianxiety drugs or certain antidepressant drugs to help reduce the anxiety of clients with conversion and somatic symptom disorders (Raj et al., 2014; Parish & Yutzy, 2011).

Other therapists try to address the physical symptoms of these disorders rather than the causes, using techniques such as suggestion, reinforcement, or confrontation (Parish & Yutzy, 2011). Those who employ suggestion offer emotional support to patients and tell them persuasively (or hypnotically) that their physical symptoms will soon disappear (Hallquist et al., 2010; Lahmann et al., 2010). Therapists who take a reinforcement approach arrange for the removal of rewards for a client’s “sickness” symptoms and an increase of rewards for healthy behaviors (Raj et al., 2014; North, 2005). And therapists who take a confrontational approach try to force patients out of the sick role by straightforwardly telling them that their bodily symptoms are without medical basis (Sjolie, 2002). Researchers have not fully evaluated the effects of these particular approaches on conversion and somatic symptom disorders (Martlew, Pulman, & Marson, 2014; Boone, 2011).
Illness Anxiety Disorder

People with illness anxiety disorder, previously known as hypochondriasis, are chronically anxious about their health and are convinced that they have or are developing a serious medical illness, despite the absence of somatic symptoms (see Table 10-5). They repeatedly check their body for signs of illness and misinterpret various bodily events as signs of serious medical problems. Typically the events are merely normal bodily changes, such as occasional coughing, sores, or sweating. Those with illness anxiety disorder persist in such misinterpretations no matter what friends, relatives, and physicians say. Some such people recognize that their concerns are excessive, but many do not.

Although illness anxiety disorder can begin at any age, it starts most often in early adulthood, among men and women in equal numbers. Between 1 and 5 percent of all people experience the disorder (Abramowitz & Braddock, 2011). Their symptoms tend to rise and fall over the years. Physicians report seeing many cases (Dimsdale et al., 2011). As many as 7 percent of all patients seen by primary care physicians may display the disorder.

Theorists typically explain illness anxiety disorder much as they explain various anxiety disorders (see Chapter 5). Behaviorists, for example, believe that the illness fears are acquired through classical conditioning or modeling (Marshall et al., 2007). Cognitive theorists suggest that people with the disorder are so sensitive to and threatened by bodily cues that they come to misinterpret them (Witthöft & Hiller, 2010; Williams, 2004).

People with illness anxiety disorder usually receive the kinds of treatments that are used to treat obsessive-compulsive disorder (see pages 164–169). Studies reveal, for example, that clients with the disorder often improve considerably when given the same antidepressant drugs that are helpful in cases of obsessive-compulsive disorder (Bouman, 2008). Many clients also improve when treated with the behavioral approach of exposure and response prevention, often combined with cognitive interventions (Abramowitz & Braddock, 2011). In this approach, the therapists repeatedly point out bodily variations to the clients while, at the same time, preventing them from seeking their usual medical attention. In addition, cognitive therapists guide the clients to identify, challenge, and change their beliefs about illness that are helping to maintain their disorder (Hedman et al., 2011).

Psychophysiological Disorders:
Psychological Factors Affecting Other Medical Conditions

About 85 years ago, clinicians identified a group of physical illnesses that seemed to be caused or worsened by an interaction of biological, psychological, and sociocultural factors (Dunbar, 1948; Bott, 1928). Early editions of the DSM labeled these illnesses psychophysiological, or psychosomatic, disorders, but DSM-5 labels them as psychological factors affecting other medical conditions (see Table 10-6). The more familiar term “psychophysiological” will be used in this chapter.

It is important to recognize that significant medical symptoms and conditions are involved in psychophysiological disorders and that the disorders often result in serious physical damage (APA, 2013). They are different from the factitious, conversion, and illness anxiety disorders that are accounted for primarily by psychological factors.
Traditional Psychophysiological Disorders

Before the 1970s, clinicians believed that only a limited number of illnesses were psychophysiological. The best known and most common of these disorders were ulcers, asthma, insomnia, chronic headaches, high blood pressure, and coronary heart disease. Recent research, however, has shown that many other physical illnesses—including bacterial and viral infections—may also be caused by an interaction of psychosocial and physical factors. Let’s look first at the traditional psychophysiological disorders and then at the illnesses that are newer to this category.

Ulcers are lesions (holes) that form in the wall of the stomach or of the duodenum, resulting in burning sensations or pain in the stomach, occasional vomiting, and stomach bleeding. More than 25 million people in the United States have ulcers at some point during their lives, and ulcers cause an estimated 6,500 deaths each year (Stratemeier & Vignogna, 2014; Simon, 2013). Ulcers often are caused by an interaction of stress factors, such as environmental pressure or intense feelings of anger or anxiety (see Figure 10-2), and physiological factors, such as the bacteria *H. pylori* (Marks, 2014; Fink, 2011; Carr, 2001).

Asthma causes the body’s airways (the trachea and bronchi) to narrow periodically, making it hard for air to pass to and from the lungs. The resulting symptoms are shortness of breath, wheezing, coughing, and a terrifying choking sensation. Some 235 million people in the world—at 25 million in the United States alone—currently suffer from asthma (WHO, 2013; Akinbami, Moorman, & Liu, 2011),

**table: 10-6**

<table>
<thead>
<tr>
<th>Psychological Factors Affecting Other Medical Conditions</th>
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<tr>
<td>1. The presence of a medical condition.</td>
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<tr>
<td>2. Psychological factors negatively affect the medical condition by:</td>
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<tr>
<td>• Affecting the course of the medical condition.</td>
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<tr>
<td>• Providing obstacles for the treatment of the medical condition.</td>
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<tr>
<td>• Posing new health risks.</td>
</tr>
<tr>
<td>• Triggering or worsening the medical condition.</td>
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</table>

(Information from: APA, 2013)
and most were children or young teenagers at the time of the first attack. Seventy percent of all cases appear to be caused by an interaction of stress factors, such as environmental pressures or anxiety, and physiological factors, such as allergies to specific substances, a slow-acting sympathetic nervous system, or a weakened respiratory system (CDC, 2013; Dhabhar, 2011).

**Insomnia**, difficulty falling asleep or maintaining sleep, plagues more than one-third of the population each year (Heffron, 2014). Although many of us have temporary bouts of insomnia that last a few nights or so, a large number of people—10 percent of the population—have insomnia that lasts months or years (see *InfoCentral* on page 334). Chronic insomniacs feel as though they are almost constantly awake. They often are very sleepy during the day and may have difficulty functioning. Their problem may be caused by a combination of psychosocial factors, such as high levels of anxiety or depression, and physiological problems, such as an overactive arousal system or certain medical ailments (Bastien, 2011; Belleville et al., 2011).

**Chronic headaches** are frequent intense aches of the head or neck that are not caused by another physical disorder. There are two major types. *Muscle contraction*, or *tension*, headaches are marked by pain at the back or front of the head or the back of the neck. These occur when the muscles surrounding the skull tighten, narrowing the blood vessels. Approximately 45 million Americans suffer from such headaches (CDC, 2010).

**Migraine headaches** are extremely severe, often nearly paralyzing headaches that are located on one side of the head and are sometimes accompanied by dizziness, nausea, or vomiting. Migraine headaches are thought by some medical theorists to develop in two phases: (1) blood vessels in the brain narrow, so that the flow of blood to parts of the brain is reduced, and (2) the same blood vessels later expand, so that blood flows through them rapidly, stimulating many neuron endings and causing pain. Twenty-three million people in the United States suffer from migraines.

**More Than Head Pain**

Migraine headaches produce much more pain and a wider range of symptoms than most other kinds of headaches. Beyond intense head pain, the symptoms may range from dizziness, nausea, and vomiting, to physical ailments that virtually paralyze the individual. Here soccer star Freddie Ljungberg is taken from the Major League Soccer All-Star game in 2009 and transported to a nearby hospital. Ljungberg, a long-time migraine sufferer, lost his vision temporarily as a consequence of the migraine that he developed during the game.
Research suggests that chronic headaches are caused by an interaction of stress factors, such as environmental pressures or general feelings of helplessness, anger, anxiety, or depression, and physiological factors, such as abnormal activity of the neurotransmitter serotonin, vascular problems, or muscle weakness (Young & Skorga, 2011; Engel, 2009).

**Hypertension** is a state of chronic high blood pressure. That is, the blood pumped through the body’s arteries by the heart produces too much pressure against the artery walls. Hypertension has few outward signs, but it interferes with the proper functioning of the entire cardiovascular system, greatly increasing the likelihood of stroke, heart disease, and kidney problems. Around 9.4 million deaths around the world are caused by hypertension (WHO, 2013). It is estimated that 75 million people in the United States have hypertension, thousands die directly from it annually, and millions more perish because of illnesses caused by it (CDC, 2014, 2011; Ford & LaVan, 2011). Around 10 percent of all cases are caused by physiological abnormalities alone; the rest result from a combination of psychological and physiological factors and are called *essential hypertension*. Some of the leading psychosocial causes of essential hypertension are constant stress, environmental danger, and general feelings of anger or depression. Physiological factors include obesity, smoking, poor kidney function, and an unusually high proportion of the gluey protein collagen in a person’s blood vessels (Brooks et al., 2011; Landsbergis et al., 2011).

**Coronary heart disease** is caused by a blocking of the coronary arteries, the blood vessels that surround the heart and are responsible for carrying oxygen to the heart muscle. The term actually refers to several problems, including blockage of the coronary arteries and *myocardial infarction* (a “heart attack”). Coronary heart disease is the leading cause of death globally, resulting in 7.3 million deaths each year. (WHO, 2013). In the United States, nearly 18 million people have some form of coronary heart disease. It is the leading cause of death for both men and women in the nation, accounting for 600,000 deaths each year, around 40 percent of all deaths (CDC, 2014; AHA, 2011). The majority of all cases of coronary heart disease are related to an interaction of psychosocial factors, such as job stress or high levels of anger or depression, and physiological factors, such as high cholesterol, obesity, hypertension, smoking, or lack of exercise (Bekkouche et al., 2011; Kendall-Tackett, 2010) (see Figure 10-3).

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**What jobs in our society might be particularly stressful and traumatizing?** Might certain lifestyles be more stressful than others?

---

**figure 10-3**

**Coronary heart disease and stress**

On January 17, 1994, Los Angeles was struck by an enormous earthquake. Twenty-four city residents with cardiovascular disease died of heart attacks on that day, five times the usual total. This underlines the important role played by stress and other psychological and sociocultural variables in coronary heart disease. (Information from: Leor et al., 1996)
SLEEP AND SLEEP DISORDERS

Sleep is a naturally recurring state that features altered consciousness, suspension of voluntary bodily functions, muscle relaxation, and reduced perception of environmental stimuli. Researchers have acquired much data about the stages, cycles, brain waves, and mechanics of sleep, but they do not fully understand its precise purpose. We do know, however, that humans and other animals need sleep to survive and function properly.

HOW MUCH DAILY SLEEP DO PEOPLE NEED VERSUS GET?

SLEEP-AWAKE DISORDERS

Sleep-awake disorders are syndromes characterized by significant and repeated disruptions in the quantity, quality, timing, or nature of a person’s sleep (APA, 2013).

WHO HAD TROUBLE FALLING ASLEEP LAST NIGHT?

Tips for a good night’s sleep

- Go to bed at the same time each night and awaken at the same time each morning.
- Avoid large meals before bedtime.
- Do not drink caffeine or alcohol before bedtime.
- Do not smoke tobacco before bedtime.
- Read or listen to soothing music before bedtime.
- Avoid viewing electronic media before bedtime.
- Create a cool, dark, and quiet bedroom atmosphere.
- If you cannot sleep, perform an interesting or productive activity until you feel sleepy.

INFOCENTRAL
What Factors Contribute to Psychophysiological Disorders?

Over the years, clinicians have identified a number of variables that may generally contribute to the development of psychophysiological disorders. You may notice that several of these variables are the same as those that contribute to the onset of acute and posttraumatic stress disorders (see Chapter 6). The variables can be grouped as biological, psychological, and sociocultural factors, respectively.

**Biological Factors**

You saw in Chapter 6 that one way the brain activates body organs is through the operation of the autonomic nervous system (ANS), the network of nerve fibers that connect the central nervous system to the body’s organs. Defects in this system are believed to contribute to the development of psychophysiological disorders (Lundberg, 2011; Hugdahl, 1995). If one’s ANS is stimulated too easily, for example, it may overreact to situations that most people find only mildly stressful, eventually damaging certain organs and causing a psychophysiological disorder. Other more specific biological problems may also contribute to psychophysiological disorders. A person with a weak gastrointestinal system, for example, may be a prime candidate for an ulcer, whereas someone with a weak respiratory system may develop asthma readily.

In a related vein, people may display favored biological reactions that raise their chances of developing psychophysiological disorders. Some individuals perspire in response to stress, others develop stomachaches, and still others have a rise in blood pressure (Lundberg, 2011). Research has indicated, for example, that some people are particularly likely to have temporary rises in blood pressure when stressed (Su et al., 2014; Gianaros & O’Connor, 2011). It may be that they are prone to develop hypertension.

**Psychological Factors**

According to many theorists, certain needs, attitudes, emotions, or coping styles may cause people to overreact repeatedly to stressors, and so increase their chances of developing psychophysiological disorders (Williams et al., 2011). Researchers have found, for example, that men with a repressive coping style (a reluctance to express discomfort, anger, or hostility) tend to have a particularly sharp rise in blood pressure and heart rate when they are stressed (Trapp et al., 2014; Myers, 2010).

Another personality style that may contribute to psychophysiological disorders is the **Type A personality style**, an idea introduced a half-century ago by two cardiologists, Meyer Friedman and Ray Rosenman (1959). People with this style are said to be consistently angry, cynical, driven, impatient, competitive, and ambitious. They interact with the world in a way that, according to Friedman and Rosenman, produces continual stress and often leads to coronary heart disease. People with a **Type B personality style**, by contrast, are thought to be more relaxed, less aggressive, and less concerned about time and thus are less likely to develop cardiovascular deterioration.

The link between the Type A personality style and coronary heart disease has been supported by many studies. In one well-known investigation of more than 3,000 people, Friedman and Rosenman (1974) separated healthy men in their forties and fifties into Type A and Type B categories and then followed their health over the next eight years. More than twice as many Type A men developed coronary heart disease. Later studies found that Type A functioning correlates similarly with heart disease in women (Haynes et al., 1980).

Recent studies indicate that the link between the Type A personality style and heart disease may not be as strong as the earlier studies suggested. These studies do suggest, however, that several

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**Wave of the Future?**

New stress-relief products are constantly being introduced to the marketplace. For example, workers can temporarily reduce their job stress by using this new product, called “Daydreamer Desk.” The desk is topped with a mattress. The worker can lie on top of the foam or simply slump forward and rest his or her head—like this person is doing—until the stress has passed or feels more manageable.

---

**Type A personality style** A personality pattern characterized by hostility, cynicism, drivenness, impatience, competitiveness, and ambition.

**Type B personality style** A personality pattern in which a person is more relaxed, less aggressive, and less concerned about time.
of the characteristics that supposedly make up the Type A style, particularly hostility and time urgency, may indeed be strongly related to heart disease (Williams et al., 2013; Elovainio et al., 2011; Myrtek, 2007).

**Sociocultural Factors: The Multicultural Perspective** Adverse social conditions may set the stage for psychophysiological disorders (Su et al., 2014). Such conditions produce ongoing stressors that trigger and interact with the biological and personality factors just discussed. One of society’s most negative social conditions, for example, is poverty. In study after study, it has been found that relatively wealthy people have fewer psychophysiological disorders, better health in general, and better health outcomes than poor people (Singh & Siahpush, 2014; Chandola & Marmot, 2011). One obvious reason for this relationship is that poorer people typically experience higher rates of crime, unemployment, overcrowding, and other negative stressors than wealthier people. In addition, they typically receive inferior medical care.

The relationship between race and psychophysiological and other health problems is complicated. On the one hand, as one might expect from the economic trends just discussed, African Americans have more such problems than do white Americans. African Americans have, for example, higher rates of high blood pressure, diabetes, and asthma (Wang et al., 2014; CDCP, 2011). They are also more likely than white Americans to die of heart disease and stroke. Certainly, economic factors may help explain this racial difference. Many African Americans live in poverty; those who do often must contend with the high rates of crime and unemployment that often result in poor health conditions (Greer et al., 2014).

Research further suggests that the high rate of psychophysiological and other medical disorders among African Americans probably extends beyond economic factors. Consider, for example, the finding that 42 percent of African Americans have high blood pressure, compared with 29 percent of white Americans (CDCP, 2011). Although this difference may be explained in part by the dangerous environments in which so many African Americans live and the unsatisfying jobs at which so many must work (Gilbert et al., 2011; Jackson et al., 2010), other factors may also be operating. A physiological predisposition among African Americans may, for example, increase their risk of developing high blood pressure. Or it may be that repeated experiences of racial discrimination constitute special stressors that help raise the blood pressure of African Americans (Dolezsar et al., 2014) (see Figure 10-4). In fact, some recent investigations have found that the more discrimination people experience over a 1-year period, the greater their daily rise in blood pressure (Smart-Richman et al., 2010).

Looking at the health picture of African Americans, one might expect to find a similar trend among Hispanic Americans. After all, a high percentage of Hispanic Americans also live in poverty, are exposed to discrimination, are affected by high rates of crime and unemployment, and receive inferior medical care (U.S. Census Bureau, 2010; Travis & Meltzer, 2008). However, despite such disadvantages, the health of Hispanic Americans is, on average, at least as good and often better than that of both white Americans and African Americans (CDCP, 2011; Mendes, 2010). As you can see in Table 10-7, for example, Hispanic Americans have lower rates of high blood pressure, high cholesterol, asthma, and cancer than white Americans or African Americans do.

The relatively positive health picture for Hispanic Americans in the face of clear economic disadvantage has been referred to in the clinical field as the “Hispanic Health Paradox.” Generally, researchers are puzzled by this pattern, but a few explanations have been offered.

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**Figure 10-4**

How much discrimination do racial minority teenagers face? It depends on who’s being asked the question. In a recent survey of 1,590 teenagers and young adults, African American respondents were more likely than white American respondents to recognize that African American teens experience various forms of discrimination. (Information from: Black Youth Project, 2011)

<table>
<thead>
<tr>
<th>Percentage Who Agree with Statement</th>
<th>African American Respondents</th>
<th>White American Respondents</th>
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<tbody>
<tr>
<td>“It is hard for young Black persons to get ahead because they face so much discrimination.”</td>
<td>61%</td>
<td>43%</td>
</tr>
<tr>
<td>“Black youth receive a poorer education on average than white youth.”</td>
<td>54%</td>
<td>31%</td>
</tr>
<tr>
<td>“The police discriminate much more against Black youth than against white youth.”</td>
<td>79%</td>
<td>63%</td>
</tr>
<tr>
<td>“Racism will not be eliminated during my lifetime.”</td>
<td>42%</td>
<td>33%</td>
</tr>
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Disorders Featuring Somatic Symptoms

It may be, for example, that the strong emphasis on social relationships, family support, and religiousness that often characterize Hispanic American cultures increase health resilience among their members (Dubowitz et al., 2010; Gallo et al., 2009). Or Hispanic Americans may have a physiological predisposition that improves their likelihood of having better health outcomes.

New Psychophysiological Disorders

Clearly, biological, psychological, and sociocultural factors combine to produce psychophysiological disorders. In fact, the interaction of such factors is now considered the rule of bodily functioning, not the exception. As the years have passed, more and more illnesses have been added to the list of traditional psychophysiological disorders and researchers have found many links between psychosocial stress and a wide range of physical illnesses. Let’s look at how these links were established and then at psychoneuroimmunology, the area of study that ties stress and illness to the body’s immune system.

Are Physical Illnesses Related to Stress? Back in 1967 two researchers, Thomas Holmes and Richard Rahe, developed the Social Readjustment Rating Scale, which assigns numerical values to the stresses that most people experience at some time in their lives (see Table 10-8 on the next page). Answers given by a large sample of participants indicated that the most stressful event on the scale is the death of a spouse, which receives a score of 100 life change units (LCUs). Lower

<table>
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<th>Prevalence of Medical Disorders Among U.S. Racial Groups</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>African Americans</td>
</tr>
<tr>
<td>White Americans</td>
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<tr>
<td>Hispanic Americans</td>
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</tbody>
</table>

(Information from: CDCP, 2011; Mendes, 2010)

It may be, for example, that the strong emphasis on social relationships, family support, and religiousness that often characterize Hispanic American cultures increase health resilience among their members (Dubowitz et al., 2010; Gallo et al., 2009). Or Hispanic Americans may have a physiological predisposition that improves their likelihood of having better health outcomes.

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Are Physical Illnesses Related to Stress? Back in 1967 two researchers, Thomas Holmes and Richard Rahe, developed the Social Readjustment Rating Scale, which assigns numerical values to the stresses that most people experience at some time in their lives (see Table 10-8 on the next page). Answers given by a large sample of participants indicated that the most stressful event on the scale is the death of a spouse, which receives a score of 100 life change units (LCUs). Lower
on the scale is retirement (45 LCUs), and still lower is a minor violation of the law (11 LCUs). This scale gave researchers a yardstick for measuring the total amount of stress a person faces over a period of time. If, for example, in the course of a year a woman started a new business (39 LCUs), sent her son off to college (29 LCUs), moved to a new house (20 LCUs), and had a close friend die (37 LCUs), her stress score for the year would be 125 LCUs, a considerable amount of stress for such a period of time.

With this scale in hand, Holmes and Rahe (1989, 1967) examined the relationship between life stress and the onset of illness. They found that the LCU scores of sick people during the year before they fell ill were much higher than those of healthy people. If a person's life changes totaled more than 300 LCUs over the course of a year, he or she was particularly likely to develop serious health problems.

Using the Social Readjustment Rating Scale or similar scales, studies have since linked stresses of various kinds to a wide range of physical conditions, from trench psychology. The study of the connections between stress, the body’s immune system, and illness.

- **immune system** The body’s network of activities and cells that identify and destroy antigens and cancer cells.
- **antigen** A foreign invader of the body, such as a bacterium or virus.
- **lymphocytes** White blood cells that circulate through the lymph system and bloodstream, helping the body identify and destroy antigens and cancer cells.
mouth and upper respiratory infections to cancer (Baum et al., 2011; Rook et al., 2011) (see MediaSpeak on the next page). Overall, the greater the amount of life stress, the greater the likelihood of illness (see Figure 10-5). Researchers even have found a relationship between traumatic stress and death. Widows and widowers, for example, display an increased risk of death during their period of bereavement (Moon et al., 2013; Möller et al., 2011; Young et al., 1963).

One shortcoming of Holmes and Rahe’s Social Readjustment Rating Scale is that it does not take into consideration the particular life stress reactions of specific populations. For example, in their development of the scale, the researchers sampled white Americans predominantly. Few of the respondents were African Americans or Hispanic Americans. But since their ongoing life experiences often differ in key ways, might not members of minority groups and white Americans differ in their stress reactions to various kinds of life events? Research indicates that indeed they do (Bennett & Olugbala, 2010; Johnson, 2010). One study found, for example, that African Americans experience greater stress than white Americans in response to a major personal injury or illness, a major change in work responsibilities, or a major change in living conditions (Komaroff et al., 1989, 1986). Similarly, studies have shown that women and men differ in their reactions to a number of life changes (Wang et al., 2007; Miller & Rahe, 1997).

Finally, college students may face stressors that are different from those listed in the Social Readjustment Rating Scale. Instead of having marital difficulties, being fired, or applying for a job, a college student may have trouble with a roommate, fail a course, or apply to graduate school. When researchers use special scales to measure life events in this population, they find the expected relationships between stressful events and illness (Anders et al., 2012; Hurst et al., 2012; Crandall et al., 1992) (see Table 10-8 again).

**Psychoneuroimmunology** How do stressful events result in a viral or bacterial infection? Researchers in an area of study called psychoneuroimmunology seek to answer this question by uncovering the links between psychosocial stress, the immune system, and health. The immune system is the body’s network of activities and cells that identify and destroy antigens—foreign invaders, such as bacteria, viruses, fungi, and parasites—and cancer cells. Among the most important cells in this system are billions of lymphocytes, white blood cells that circulate through the lymph system and the bloodstream. When stimulated by antigens, lymphocytes spring into action to help the body overcome the invaders.

One group of lymphocytes, called helper T-cells, identifies antigens and then multiplies and triggers the production of other kinds of immune cells. Another group, natural killer T-cells, seeks out and destroys body cells that have already been infected by viruses, thus helping to stop the spread of a viral infection. A third group of lymphocytes, B-cells, produces antibodies, protein molecules that recognize and bind to antigens, mark them for destruction, and prevent them from causing infection.

Researchers now believe that stress can interfere with the activity of lymphocytes, slowing them down and thus increasing a person’s susceptibility to viral and bacterial infections (Dhabhar, 2014, 2011). In a landmark study, investigator Roger Bartrop and his colleagues (1977) in New South Wales, Australia, compared the immune systems of 26 people whose spouses had died 8 weeks earlier with those of 26 matched control group participants whose spouses had not died. Blood samples revealed that lymphocyte functioning was much lower in the bereaved people than in the controls. Still other studies have shown slow immune functioning in people who are exposed to long-term stress. For example,
The first time it was an ear, nose and throat doctor. I had an emergency visit for an ear infection, which was causing a level of pain I hadn’t experienced since giving birth. He looked at the list of drugs I was taking for my bipolar disorder and closed my chart.

"I don’t feel comfortable prescribing anything," he said. "Not with everything else you’re on." He said it was probably safe to take Tylenol and politely but firmly indicated it was time for me to go. The next day my eardrum ruptured and I was left with minor but permanent hearing loss.

Another time I was lying on the examining table when a gastroenterologist I was seeing for the first time looked at my list of drugs and shook her finger in my face. "You better get yourself together psychologically," she said, "or your stomach is never going to get any better."

I was surprised when, after one of these run-ins, my psychopharmacologist said this sort of behavior was all too common. At least 14 studies have shown that patients with a serious mental illness receive worse medical care than “normal” people. Last year the World Health Organization called the stigma and discrimination endured by people with mental health conditions “a hidden human rights emergency.”

I never knew it until I started poking around, but this particular kind of discriminatory doctoring has a name. It’s called “diagnostic overshadowing.”

According to a review of studies done by the Institute of Psychiatry at King’s College, London, it happens a lot. As a result, people with a serious mental illness receive worse medical care than “normal” people. Last year the World Health Organization called the stigma and discrimination endured by people with mental health conditions “a hidden human rights emergency.”

I never knew it until I started poking around, but this particular kind of discriminatory doctoring has a name. It’s called “diagnostic overshadowing.”

That is a problem, because if you are given one of these diagnoses you probably also suffer from one or more chronic physical conditions: though no one quite knows why, migraines, irritable bowel syndrome and mitral valve prolapse often go hand in hand with bipolar disorder.

It’s little wonder that many people with a serious mental illness don’t seek medical attention when they need it. As a result, many of us end up in emergency rooms—where doctors, confronted with an endless stream of drug addicts who come to their door looking for an easy fix—are often all too willing to equate mental illness with drug-seeking behavior and refuse to prescribe pain medication.

Indeed, given my experience over the last two decades, I shouldn’t have been surprised by the statistics I found in a review of studies published in 2006. The take-away: people who suffer from a serious mental illness and use the public health care system die 25 years earlier than those without one.

True, suicide is a big factor, accounting for 30 to 40 percent of early deaths. But 60 percent die of preventable or treatable conditions. First on the list is, unsurprisingly, cardiovascular disease. Two studies showed that patients with both a mental illness and a cardiovascular condition received about half the number of follow-up interventions, like bypass surgery or cardiac catheterization, after having a heart attack than did the “normal” cardiac patients.

The report also contains a list of policy recommendations, including designating patients with serious mental illnesses as a high-priority population; coordinating and integrating mental and physical health care for such people; education for health care workers and patients; and a quality-improvement process that supports increased access to physical health care and ensures appropriate prevention, screening and treatment services.

We can only hope that humanizing programs like this become a requirement for all health care workers. Maybe then “first, do no harm” will apply to everyone, even the mentally ill.

August 11, 2013 “OPINION; When Doctors Discriminate” Carey, Juliann. From The New York Times, 8/11/2013 © 2013 The New York Times. All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of this Content without express written permission is prohibited.
researchers have found poorer immune functioning among those who provide ongoing care for a relative with Alzheimer’s disease (Lovell & Wetherall, 2011; Kiecolt-Glaser et al., 2002, 1996).

These studies seem to be telling a remarkable story. During periods when healthy people happened to have unusual levels of stress, they remained healthy on the surface, but their stressors apparently slowed their immune systems so that they became susceptible to illness. If stress affects our capacity to fight off illness, it is no wonder that researchers have repeatedly found a relationship between life stress and illnesses of various kinds. But why and when does stress interfere with the immune system? Several factors influence whether stress will result in a slowdown of the system, including biochemical activity, behavioral changes, personality style, and degree of social support.

**BIOCHEMICAL ACTIVITY** Excessive activity of the neurotransmitter norepinephrine apparently contributes to slowdowns of the immune system. Remember from Chapter 6 that stress leads to increased activity by the sympathetic nervous system, including an increase in the release of norepinephrine throughout the brain and body. Research indicates that if stress continues for an extended time, norepinephrine eventually travels to receptors on certain lymphocytes and gives them an inhibitory message to stop their activity, thus slowing down immune functioning (Dhabhar, 2014; Groër et al., 2010; Lekander, 2002).

In a similar manner, corticosteroids—that is, cortisol and other so-called stress hormones—apparently contribute to poorer immune system functioning. Recall that when a person is under stress, the adrenal glands release corticosteroids (see page 180). As in the case of norepinephrine, if stress continues for an extended time, the stress hormones eventually travel to receptor sites located on certain lymphocytes and give an inhibitory message, again causing a slowdown of the activity of the lymphocytes (Dhabhar, 2014; Groër et al., 2010; Bauer, 2005).

Recent research has further indicated that another action of the corticosteroids is to trigger an increase in the production of cytokines, proteins that bind to receptors throughout the body. At moderate levels of stress, the cytokines, another key player in the immune system, help combat infection. But as stress continues and more corticosteroids are released, the growing production and spread of cytokines lead to chronic inflammation throughout the body, contributing at times to heart disease, stroke, and other illnesses (Dhabhar, 2014; Brooks et al., 2011; Burg & Pickering, 2011).

**BEHAVIORAL CHANGES** Stress may set in motion a series of behavioral changes that indirectly affect the immune system. Some people under stress may, for example, become anxious or depressed, perhaps even develop an anxiety or mood disorder. As a result, they may sleep badly, eat poorly, exercise less, or smoke or drink more—behaviors known to slow down the immune system (Brooks et al., 2011; Kibler et al., 2010).

**PERSONALITY STYLE** According to research, people who generally respond to life stress with optimism, constructive coping, and resilience—that is, people who welcome challenges and are willing to take control in their daily encounters—experience better immune system functioning and are better prepared to fight off illness (Kim, Chopik, & Smith, 2014; Williams et al., 2011). Some studies have found, for example, that people with “hardy” or resilient personalities remain healthy after stressful events, while those whose personalities are less hardy seem more susceptible to illness (Bonanno & Mancini, 2012; Ouellette & DiPlacido, 2001). Researchers have even discovered that men with a general sense of hopelessness die at above-average rates from heart disease and other causes (Kangelaris et al., 2010;
Everson et al., 1996). Similarly, a growing body of research suggests that people who are spiritual tend to be healthier than people without spiritual beliefs, and a few studies have linked spirituality to better immune system functioning (Jackson & Bergeman, 2011; Cadge & Fair, 2010).

In related work, researchers have found a relationship between certain personality characteristics and a person’s ability to cope effectively with cancer (Baum et al., 2011; Floyd et al., 2011). They have found, for example, that patients with certain forms of cancer who display a helpless coping style and who cannot easily express their feelings, particularly anger, tend to have a poorer quality of life in the face of their disease than patients who do express their emotions. A few investigators have even suggested a relationship between personality and cancer outcome, but this claim has not been supported clearly by research (Pillay et al., 2014; Kern & Friedman, 2011; Urcuyo et al., 2005).

SOCIAL SUPPORT Finally, people who have few social supports and feel lonely tend to have poorer immune functioning in the face of stress than people who do not feel lonely (Hicks, 2014; Cohen, 2002). In a pioneering study, medical students were given the UCLA Loneliness Scale and then divided into “high” and “low” loneliness groups (Kiecolt-Glaser et al., 1984). The high-loneliness group showed lower lymphocyte responses during a final exam period.

Other studies have found that social support and affiliation may actually help protect people from stress, poor immune system functioning, and subsequent illness, or help speed up recovery from illness or surgery (Rook et al., 2011). Similarly, some studies have suggested that patients with certain forms of cancer who receive social support in their personal lives or supportive therapy often have better immune system functioning and more successful recoveries than patients without such supports (Dagan et al., 2011; Kim et al., 2010).

Psychological Treatments for Physical Disorders

As clinicians have discovered that stress and related psychological and sociocultural factors may contribute to physical disorders, they have applied psychological treatments to more and more medical problems. The most common of these interventions are relaxation training, biofeedback, meditation, hypnosis, cognitive interventions, support groups, and therapies to increase awareness and expression.
of emotions. The field of treatment that combines psychological and physical approaches to treat or prevent medical problems is known as behavioral medicine.

**Relaxation Training** As you saw in Chapter 5, people can be taught to relax their muscles at will, a process that sometimes reduces feelings of anxiety. Given the positive effects of relaxation on anxiety and the nervous system, clinicians believe that relaxation training can help prevent or treat medical illnesses that are related to stress.

Relaxation training, often in combination with medication, has been widely used in the treatment of high blood pressure (Moffatt et al., 2010). It has also been of some help in treating headaches, insomnia, asthma, diabetes, pain, certain vascular diseases, and the undesirable effects of certain cancer treatments (Gagnon et al., 2013; Nezu et al., 2011).

**Biofeedback** As you also saw in Chapter 5, patients given biofeedback training are connected to machinery that gives them continuous readings about their involuntary body activities. This information enables them gradually to gain control over those activities. Somewhat helpful in the treatment of anxiety disorders, the procedure has also been applied to a growing number of physical disorders.

In a classic study, electromyograph (EMG) feedback was used to treat 16 patients who had facial pain caused in part by tension in their jaw muscles (Dohrmann & Laskin, 1978). In an EMG procedure, electrodes are attached to a person’s muscles so that the muscle contractions are detected and converted into an audible tone (see page 143). Changes in the pitch and volume of the tone indicate changes in muscle tension. After “listening” to EMG feedback repeatedly, the 16 patients in this study learned how to relax their jaw muscles at will and later reported that they had less facial pain.

EMG feedback has also been used successfully in the treatment of headaches and muscular disabilities caused by strokes or accidents. Still other forms of biofeedback training have been of some help in the treatment of heartbeat irregularities, asthma, high blood pressure, stuttering, and pain (Freitag, 2013; Young & Kemper, 2013; Stokes & Lappin, 2010).

**Meditation** Although meditation has been practiced since ancient times, Western health care professionals have only recently become aware of its effectiveness in relieving physical distress. Meditation is a technique of turning one’s concentration inward, achieving a slightly changed state of consciousness, and temporarily ignoring all stressors. In the most common approach, meditators go to a quiet place, assume a comfortable posture, utter or think a particular sound (called a mantra) to help focus their attention, and allow their mind to turn away from all outside thoughts and concerns. Many people who meditate regularly report feeling more peaceful, engaged, and creative. Meditation has been used to help manage pain and to treat high blood pressure, heart problems, asthma, skin disorders, diabetes, insomnia, and even viral infections (Manchanda & Madan, 2014; Stein, 2003; Andresen, 2000).

One form of meditation that has been used in particular by patients suffering from severe pain is mindfulness meditation (Barker, 2014; Kabat-Zinn, 2005). Here, as you read in Chapters 3 and 5, meditators pay attention to the feelings, thoughts, and sensations that are flowing through their mind during meditation, but they do so with detachment and objectivity and, most importantly, without judgment. By just being mindful but not judgmental of their feelings and thoughts, including feelings of pain, they are less inclined to label them, fixate on them, or react negatively to them.

**Hypnosis** As you saw in Chapter 1, people who undergo hypnosis are guided by a hypnotist into a sleeplike, suggestible state during which they can be directed to act in unusual ways, feel unusual sensations, remember seemingly forgotten events, or forget remembered events. With training, some people are even able to induce
Hypnosis is now used as an aid to psychotherapy and to help treat many physical conditions.

Hypnosis seems to be particularly helpful in the control of pain (Jensen et al., 2014, 2011). One case study describes a patient who underwent dental surgery under hypnotic suggestion: After a hypnotic state was induced, the dentist suggested to the patient that he was in a pleasant and relaxed setting listening to a friend describe his own success at undergoing similar dental surgery under hypnosis. The dentist then proceeded to perform a successful 25-minute operation (Gheorghiu & Orleanu, 1982). Although only some people are able to go through surgery while anesthetized by hypnosis alone, hypnosis combined with chemical forms of anesthesia is apparently helpful to many patients (Lang, 2010). Beyond its use in the control of pain, hypnosis has been used successfully to help treat such problems as skin diseases, asthma, insomnia, high blood pressure, warts, and other forms of infection (McBride, Vlieger, & Anbar, 2014; Gupta & Levenson, 2010; Modlin, 2002).

**Cognitive Interventions** People with physical ailments have sometimes been taught new attitudes or cognitive responses toward their ailments as part of treatment (Hampel et al., 2014; Syrjala et al., 2014; Diefenbach et al., 2010). For example, an approach called *self-instruction training*, or *stress inoculation training*, has helped patients cope with severe pain (D’Arienzo, 2010; Meichenbaum, 1997, 1993, 1977, 1975). In this training, therapists teach people to identify and eventually rid themselves of unpleasant thoughts that keep emerging during pain episodes (so-called *negative self-statements*, such as “Oh no, I can’t take this pain”) and to replace them with *coping self-statements* instead (for example, “When pain comes, just pause; keep focusing on what you have to do”).

**Support Groups and Emotion Expression** If anxiety, depression, anger, and the like contribute to a person’s physical ills, interventions to reduce these negative emotions should help reduce the ills. Thus it is not surprising that
some medically ill people have profited from support groups and from therapies that guide them to become more aware of and express their emotions and needs (Bell et al., 2010; Hsu et al., 2010; Antoni, 2005). Research suggests that the discussion, or even the writing down, of past and present emotions or upsets may help improve a person’s health, just as it may help one’s psychological functioning (Kelly & Barry, 2010; Smyth & Pennebaker, 2001). In one study, asthma and arthritis patients who wrote down their thoughts and feelings about stressful events for a handful of days showed lasting improvements in their conditions. Similarly, stress-related writing was found to be beneficial for patients with either HIV or cancer (Corter & Petrie, 2011; Petrie et al., 2004).

Combination Approaches Studies have found that the various psychological interventions for physical problems tend to be equally effective (Devineni & Blanchard, 2005). Relaxation and biofeedback training, for example, are equally helpful (and more helpful than placebos) in the treatment of high blood pressure, headaches, and asthma. Psychological interventions are, in fact, often most helpful when they are combined with other psychological interventions and with medical treatments (Jensen et al., 2014, 2011; Hembree & Foa, 2010). In a classic study, ulcer patients who were given relaxation, self-instruction, and assertiveness training along with medication were found to be less anxious and more comfortable, to have fewer symptoms, and to have a better long-term outcome than patients who received medication only (Brooks & Richardson, 1980). Combination interventions have also been helpful in changing Type A patterns and in reducing the risk of coronary heart disease among people who display Type A kinds of behavior (Burke & Riley, 2010; Harlapur et al., 2010).

Clearly, the treatment picture for physical illnesses has been changing dramatically. While medical treatments continue to dominate, today’s medical practitioners are traveling a course far removed from that of their counterparts in centuries past.

PUTTING IT...together

Expanding the Boundaries of Abnormal Psychology

Once considered outside the field of abnormal psychology, bodily ailments and physical illnesses are now seen as problems that fall squarely within its boundaries. Just as physical factors have long been recognized as playing a role in abnormal mental functioning, psychological conditions are now considered important contributors to abnormal physical functioning. In fact, many of today’s clinicians...
believe that psychological and sociocultural factors contribute to some degree to the onset and course of virtually all physical ailments.

The number of studies devoted to this relationship has risen steadily during the past 40 years. What researchers once saw as a vague connection between stress and physical illness is now understood as a complex interaction of many variables. Such factors as life changes, a person’s particular psychological state, social support, biochemical activity and slowing of the immune system are all recognized as contributors to disorders once considered purely physical.

Insights into the treatment of physical illnesses have been accumulating just as rapidly. Psychological approaches such as relaxation training and cognitive therapy are being applied to more and more physical ills, usually in combination with traditional medical treatments. Small wonder that many practitioners are convinced that such treatment combinations will eventually be the norm in treating the majority of physical ailments.

One of the most exciting aspects of these recent developments is the field’s growing emphasis on the interrelationship of the social environment, the brain, and the rest of the body. Researchers have observed repeatedly that mental disorders are often best understood and treated when sociocultural, psychological, and biological factors are all taken into consideration. They now know that this interaction also helps explain medical problems. We are reminded that the brain is part of the body and that both are part of a social context. For better and for worse, the three are intertwined.

**SUMMING UP**

- **DISORDERS FOCUSING ON SOMATIC SYMPTOMS** Several DSM-5 categories focus on somatic symptoms, including factitious disorder, conversion disorder, somatic symptom disorder, illness anxiety disorder, and psychological factors affecting medical condition. In these disorders, the somatic symptoms are primarily caused by psychosocial factors, or the symptoms trigger excessive anxiety or concern. p. 318

- **FACTITIOUS DISORDER** People with factitious disorder feign or induce physical disorders, typically for the purpose of assuming the role of a sick person. The disorder is not well understood or treated. In a related pattern, factitious disorder imposed on another, a parent fabricates or induces a physical illness in his or her child. pp. 318–320

- **CONVERSION AND SOMATIC SYMPTOM DISORDERS** Conversion disorder involves bodily symptoms that affect voluntary motor and sensory functions, but the symptoms are inconsistent with known medical diseases. Diagnosticians are sometimes able to distinguish conversion disorder from a “true” medical problem by observing oddities in the patient’s medical picture. In somatic symptom disorder, people become excessively distressed, concerned, and anxious about bodily symptoms that they are experiencing, and their lives are greatly and disproportionately disrupted by the symptoms.

Freud developed the initial psychodynamic view of conversion and somatic symptom disorders, proposing that the disorders represent a conversion of underlying emotional conflicts into physical symptoms. According to behaviorists, the physical symptoms of these disorders bring rewards to the sufferer, and such reinforcement helps maintain the symptoms. Some cognitive theorists propose that the disorders are forms of communication and that people express their emotions through their physical symptoms.
Treatments for these disorders include insight, exposure, and drug therapies and may include techniques such as suggestion, reinforcement, or confrontation. pp. 321–329

- **ILLNESS ANXIETY DISORDER** People with *illness anxiety disorder* are chronically anxious about and preoccupied with the notion that they have or are developing a serious medical illness, despite the absence of substantial somatic symptoms. Theorists explain this disorder much as they do anxiety disorders. Treatment includes drug, behavioral, and cognitive approaches originally developed for obsessive-compulsive disorder. pp. 330

- **PSYCHOPHYSIOLOGICAL DISORDERS** *Psychophysiological disorders* are those in which biological, psychosocial, and sociocultural factors interact to cause or worsen a physical problem. Factors linked to these disorders are biological factors, such as defects in the autonomic nervous system or particular organs; psychological factors, such as particular needs, attitudes, or personality styles; and sociocultural factors, such as aversive social conditions and cultural pressures.

  For years, clinical researchers singled out a limited number of physical illnesses as psychophysiological. These traditional psychophysiological disorders include ulcers, asthma, insomnia, chronic headaches, hypertension, and coronary heart disease. Recently many other psychophysiological disorders have been identified. Indeed, scientists have linked many physical illnesses to stress and have developed a new area of study called *psychoneuroimmunology*. pp. 330–339

- **PSYCHONEUROIMMUNOLOGY** The body’s immune system consists of lymphocytes and other cells that fight off *antigens*—bacteria, viruses, and other foreign invaders—and cancer cells. Stress can slow lymphocyte activity, thereby interfering with the immune system’s ability to protect against illness during times of stress. Factors that seem to affect immune functioning include norepinephrine and corticosteroid activity, behavioral changes, personality style, and social support. pp. 339–342

- **PSYCHOLOGICAL TREATMENTS FOR PHYSICAL DISORDERS** *Behavioral medicine* combines psychological and physical interventions to treat or prevent medical problems. Psychological approaches such as relaxation training, biofeedback training, meditation, hypnosis, cognitive techniques, support groups, and therapies that heighten the awareness and expression of emotions and needs are increasingly being included in the treatment of various medical problems. pp. 342–345

Visit [LaunchPad](https://www.macmillanhighered.com/launchpad/comerabpsych9e) to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
Shani, age 15: While I was learning to resist the temptation of hunger, I walked into the kitchen when no one was around, took a slice of bread out the packet, toasted it, spread butter on it, took a deep breath and bit. Guilty. I spat it in the trash and tossed the rest of it in and walked away. Seconds later I longed for the toast, walked back to the trash, popped open the lid and sifted around in the debris. I found it and contemplated, for minutes, whether to eat it. I brought it close to my nose and inhaled the smell of melted butter. Guilty for eating it. Guilty for craving it. Guilty for tasting it. I threw it back in the trash and walked away. No is no, I told myself. No is no.

... And no matter how hard I would try to always have The Perfect Day in terms of my food, I would feel the guilt every second of every day. It reeked of shame, seeped with disgust and festered in disgrace. It was my desire to escape the guilt that perpetuated my compulsion to starve.

In time I formulated a more precise list of “can” and “can’t” in my head that dictated what I was allowed or forbidden to consume. ... It became my way of life. My manual. My blueprint. But more than that, it gave me false reassurance that my life was under control. I was managing everything because I had this list in front of me telling me what—and what not—to do. ...

In the beginning, starving was hard work. It was not innate. Day by day I was slowly lured into another world, a world that was as isolating as it was intriguing, and as rewarding as it was challenging. ...

That summer, despite the fact that I had lost a lot of weight, my mother agreed to let me go to summer camp with my fifteen-year-old peers, after I swore to her that I would eat. I broke that promise as soon as I got there. ... At breakfast time when all the teens raced into the dining hall to grab cereal boxes and bread loaves and jelly tins and peanut butter jars, I sat alone cocooned in my fear. I fingered the plastic packet of a loaf of white sliced bread, took out a piece and tore off a corner, like I was marking a page in a book, onto which I dabbed a blob of peanut butter and jelly the size of a Q-tip. That was my breakfast. Every day. For three weeks.

I tried to get to the showers when everyone else was at the beach so nobody would see me. I heard girls behind me whispering, “That’s the girl I told you about that looks so disgusting.” Someone invariably walked in on me showering and covered her mouth with her hand like I was a dead body. I wished I could disappear into the drain like my hair that was falling out in chunks. ...

While everyone else was out there swimming, tanning, making out, playing sports, volunteering and team building, I hid in my tent and wrote letters to my mother reassuring her that I was eating. I told her that I ate peanut butter and jelly sandwiches every morning for breakfast. ...

[Upon returning to school] I was labeled the “concentration camp victim.” On my return, over the months everyone watched my body shrink as though it were being vacuum packed in slow motion. ... At my lowest weight my hipbones protruded like knuckle bones under my dress and I had to minimize the increments of the belt holes until there was so much extra belt material dangling down that I did away with the belt completely. My shoes were too big for my feet; my ankles were so thin that I wore three pairs of socks at a time and still my shoes would slide off my heels. And my panties were so baggy I secured them with safety pins on the sides so they wouldn’t fall down. ...

On the home front things were worse than ever. I moved to the downstairs room, which had a separate entrance and bathroom, and I locked my door and forbade anyone from entering. Even so, my mother and I had screaming matches every day, with her trying to convince me that “your body needs food as fuel” and me retaliating with “I’m not hungry.” But the more she tried to appeal to my rational side, the more stubborn I became in my conviction. ...
It has not always done so, but Western society today equates thinness with health and beauty. In fact, in the United States thinness has become a national obsession. Most of us are as preoccupied with how much we eat as with the taste and nutritional value of our food. Thus it is not surprising that during the past three decades we have also witnessed an increase in two eating disorders that have at their core a morbid fear of gaining weight. Sufferers of anorexia nervosa, like Shani, are convinced that they need to be extremely thin, and they lose so much weight that they may starve themselves to death. People with bulimia nervosa go on frequent eating binges, during which they uncontrollably consume large quantities of food, and then force themselves to vomit or take other extreme steps to keep from gaining weight. A third eating disorder, binge-eating disorder, in which people frequently go on eating binges but do not force themselves to vomit or engage in other such behaviors, also appears to be on the rise. People with binge-eating disorder do not fear weight gain to the same degree as those with anorexia nervosa and bulimia nervosa, but they do have many of the other features found in those disorders (Alvarenga et al., 2014).

The news media have published many reports about eating disorders. One reason for the surge in public interest is the frightening medical consequences that can result from the disorders. The public first became aware of such consequences in 1983 when Karen Carpenter died from medical problems related to anorexia. Carpenter, the 32-year-old lead singer of the soft-rock brother-and-sister duo called the Carpenters, had been enormously successful and was admired by many as a wholesome and healthy model to young women everywhere. Another reason for the current concern is the disproportionate prevalence of anorexia nervosa and bulimia nervosa among adolescent girls and young women.

Anorexia Nervosa

Shani, 15 years old and in the ninth grade, displays many symptoms of anorexia nervosa (APA, 2013). She purposely maintains a significantly low body weight, intensely fears becoming overweight, has a distorted view of her weight and shape, and is excessively influenced by her weight and shape in her self-evaluations (see Table 11-1).

Like Shani, at least half of the people with anorexia nervosa reduce their weight by restricting their intake of food, a pattern called restricting-type anorexia nervosa. First they tend to cut out sweets and fattening snacks; then, increasingly, they eliminate other foods. Eventually people with this kind of anorexia nervosa show almost
Eating Disorders

Eating Disorders

no variability in diet. Others, however, lose weight by forcing themselves to vomit after meals or by abusing laxatives or diuretics, and they may even engage in eating binges, a pattern called binge-eating/purging-type anorexia nervosa, which you will read about in more detail in the section on bulimia nervosa.

Ninety to 95 percent of all cases of anorexia nervosa occur in females. Although the disorder can appear at any age, the peak age of onset is between 14 and 20 years. Between 0.5 and 4.0 percent of all females in Western countries develop the disorder in their lifetime, and many more display at least some of its symptoms (Ekern, 2014; Smink et al., 2013; Stice et al., 2013). It seems to be on the increase in North America, Europe, and Japan.

Typically the disorder begins after a person who is slightly overweight or of normal weight has been on a diet (Stice & Presnell, 2010). The escalation toward anorexia nervosa may follow a stressful event such as separation of parents, a move away from home, or an experience of personal failure (Wilson et al., 2003). Although most people with the disorder recover, between 2 and 6 percent of them become so seriously ill that they die, usually from medical problems brought about by starvation, or from suicide (Suokas et al., 2013; Forcano et al., 2010).

The Clinical Picture

Becoming thin is the key goal for people with anorexia nervosa, but fear provides their motivation. People with this disorder are afraid of becoming obese, of giving in to their growing desire to eat, and more generally of losing control over the size and shape of their bodies. In addition, despite their focus on thinness and the severe restrictions they may place on their food intake, people with anorexia are preoccupied with food. They may spend considerable time thinking and even reading about food and planning their limited meals (Herzig, 2004). Many report that their dreams are filled with images of food and eating (Knudson, 2006).

This preoccupation with food may in fact be a result of food deprivation rather than its cause. In a famous “starvation study” conducted in the late 1940s, 36 normal-weight conscientious objectors were put on a semistarvation diet for six months (Keys et al., 1950). Like people with anorexia nervosa, the volunteers became preoccupied with food and eating. They spent hours each day planning their small meals, talked more about food than about any other topic, studied cookbooks and recipes, mixed food in odd combinations, and dawdled over their meals. Many also had vivid dreams about food.

Persons with anorexia nervosa also think in distorted ways. They usually have a low opinion of their body shape, for example, and consider themselves unattractive (Boone et al., 2014; Siep et al., 2011). In addition, they are likely to overestimate their actual proportions. While most women in Western society overestimate their body size, the estimates of those with anorexia nervosa are particularly high. In one of her classic books on eating disorders, Hilde Bruch, a pioneer in this field, recalled the self-perceptions of a 23-year-old patient:

“I look in a full-length mirror at least four or five times daily and I really cannot see myself as too thin. Sometimes after several days of strict dieting, I feel that my shape is tolerable, but most of the time, odd as it may seem, I look in the mirror and believe that I am too fat.”

(Bruch, 1973)

> **anorexia nervosa** A disorder marked by the pursuit of extreme thinness and by extreme weight loss.
This tendency to overestimate body size has been tested in the laboratory (Delinsky, 2011; Farrell, Lee, & Shafran, 2005). In a popular assessment technique, research participants look at a photograph of themselves through an adjustable lens. They are asked to adjust the lens until the image that they see matches their actual body size. The image can be made to vary from 20 percent thinner to 20 percent larger than actual appearance. In one study, more than half of the individuals with anorexia nervosa overestimated their body size, stopping the lens when the image was larger than they actually were.

The distorted thinking of anorexia nervosa also takes the form of certain maladaptive attitudes and misperceptions (Alvarenga et al., 2014; Fairburn et al., 2008). Sufferers tend to hold such beliefs as “I must be perfect in every way”; “I will become a better person if I deprive myself”; and “I can avoid guilt by not eating.”

People with anorexia nervosa also have certain psychological problems, such as depression, anxiety, low self-esteem, and insomnia or other sleep disturbances (Forsén Mantilla, Bergsten, & Birgegård, 2014; Holm-Denoma et al., 2014). A number grapple with substance abuse (Mann et al., 2014; Steiger & Israel, 2010). And many display obsessive-compulsive patterns (Degortes et al., 2014; Friederich & Herzog, 2011). They may set rigid rules for food preparation or even cut food into specific shapes. Broader obsessive-compulsive patterns are common as well. Many, for example, exercise compulsively, prioritizing exercise over most other activities in their lives (Fairburn et al., 2008). In some research, people with anorexia nervosa and others with obsessive-compulsive disorder score equally high for obsessiveness and compulsiveness. Finally, persons with anorexia nervosa tend to be perfectionistic, a characteristic that typically precedes the onset of the disorder (Boone et al., 2014).

Medical Problems

The starvation habits of anorexia nervosa cause medical problems (Faje et al., 2014; Suokas et al., 2014; Oflaz et al., 2013). Women develop amenorrhea, the absence of menstrual cycles. Other problems include lowered body temperature, low blood pressure, body swelling, reduced bone mineral density, and slow heart rate. Metabolic and electrolyte imbalances also may occur and can lead to death by heart failure or circulatory collapse. The poor nutrition of people with anorexia nervosa may also cause skin to become rough, dry, and cracked; nails to become brittle; and hands and feet to be cold and blue. Some people lose hair from the scalp, and some grow lanugo (the fine, silky hair that covers some newborns) on their trunk, extremities, and face. Shani, the young woman whose self-description opened this chapter, recalls how her body deteriorated as her disorder was progressing:

> Nobody knew that I was always cold no matter how many layers I wore. And that my hair came out in thick wads whenever I wet it or washed it. That I stopped menstruating. That at night I lay awake agonizing over thoughts of the day's consumption. That the guilt I carried every day weighed on me like lead. That my hipbones hurt to lie on my stomach and my coccyx hurt to sit on the floor. And that the concave feeling in my stomach of dying hunger left in its place an anger that would destroy all feeling.

(Ravin, 2010)
Bulimia Nervosa

People with bulimia nervosa—a disorder also known as binge-purge syndrome—engage in repeated episodes of uncontrollable overeating, or binges. A binge episode takes place over a limited period of time, often two hours, during which the person eats much more food than most people would eat during a similar time span (APA, 2013). In addition, people with this disorder repeatedly perform inappropriate compensatory behaviors, such as forcing themselves to vomit; misusing laxatives, diuretics, or enemas; fasting; or exercising excessively (see Table 11-2). Lindsey, a woman who has since recovered from bulimia nervosa, describes a morning during her disorder:

Today I am going to be really good and that means eating certain predetermined portions of food and not taking one more bite than I think I am allowed. I am very careful to see that I don't take more than Doug does. I judge by his body. I can feel the tension building. I wish Doug would hurry up and leave so I can get going!

As soon as he shuts the door, I try to get involved with one of the myriad of responsibilities on the list. I hate them all! I just want to crawl into a hole. I don’t want to do anything. I’d rather eat. I am alone, I am nervous, I am no good, I always do everything wrong anyway, I am not in control, I can’t make it through the day, I just know it. It has been the same for so long.

I remember the starchy cereal I ate for breakfast. I am into the bathroom and onto the scale. It measures the same, but I don’t want to stay the same! I want to be thinner! I look in the mirror; I think my thighs are ugly and deformed looking. I see a lumpy, clumsy, pear-shaped wimp. There is always something wrong with what I see. I feel frustrated trapped in this body and I don’t know what to do about it.

I float to the refrigerator knowing exactly what is there. I begin with last night’s brownies. I always begin with the sweets. At first I try to make it look like nothing is missing, but my appetite is huge and I resolve to make another batch of brownies. I know there is half of a bag of cookies in the bathroom, thrown out the night before, and I polish them off immediately. I take some milk so my vomiting will be smoother.

Across the generations

When famous television journalist Katie Couric interviewed popular singer Demi Lovato in 2012, it turned out that the two had an important thing in common—eating disorders. Lovato has spoken openly for years about her body image issues and eating struggles, but not until this interview did Couric reveal that she had experienced similar problems in the past. She noted, “I wrestled with bulimia all through college and for two years after that.”

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<th>Dx Checklist</th>
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<tr>
<td>Bulimia Nervosa</td>
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<tr>
<td>1. Repeated binge eating episodes.</td>
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<tr>
<td>2. Repeated performance of ill-advised compensatory behaviors (e.g., forced vomiting) to prevent weight gain.</td>
</tr>
<tr>
<td>3. Symptoms take place at least weekly for a period of 3 months.</td>
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<tr>
<td>4. Inappropriate influence of weight and shape on appraisal of oneself.</td>
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(Information from: APA, 2013.)
I like the full feeling I get after downing a big glass. I get out six pieces of bread and toast one side in the broiler, turn them over and load them with patties of butter and put them under the broiler again till they are bubbling. I take all six pieces on a plate to the television and go back for a bowl of cereal and a banana to have along with them. Before the last toast is finished, I am already preparing the next batch of six more pieces. Maybe another brownie or five, and a couple of large bowlfuls of ice cream, yogurt or cottage cheese. My stomach is stretched into a huge ball below my ribcage. I know I’ll have to go into the bathroom soon, but I want to postpone it. I am in never-never land. I am waiting, feeling the pressure, pacing the floor in and out of the rooms. Time is passing. Time is passing. It is getting to be time.

I wander aimlessly through each of the rooms again tidying, making the whole house neat and put back together. I finally make the turn into the bathroom. I brace my feet, pull my hair back and stick my finger down my throat, stroking twice, and get up a huge pile of food. Three times, four and another pile of food. I can see everything come back. I am glad to see those brownies because they are SO fattening. The rhythm of the emptying is broken and my head is beginning to hurt. I stand up feeling dizzy, empty and weak. The whole episode has taken about an hour.

(Hall & Cohn, 2010, p. 1; Hall, 1980 pp. 5–6)

Like anorexia nervosa, bulimia nervosa usually occurs in females, again in 90 to 95 percent of the cases (Sanftner & Tantillo, 2011). It begins in adolescence or young adulthood (most often between 15 and 20 years of age) and often lasts for years, with periodic letup (Stice et al., 2013). The weight of people with bulimia nervosa usually stays within a normal range, although it may fluctuate markedly within that range. Some people with this disorder, however, become seriously underweight and may eventually qualify for a diagnosis of anorexia nervosa instead (see Figure 11-1).

Many teenagers and young adults go on occasional eating binges or experiment with vomiting or laxatives after they hear about these behaviors from their friends or the media. Indeed, according to global studies, 25 to 50 percent of all students report periodic binge eating or self-induced vomiting (Ekern, 2014; Zerbe, 2008; McDermott & Jaffà, 2005). Only some of these individuals, however, qualify for a
diagnosis of bulimia nervosa. Surveys in several Western countries suggest that as many as 5 percent of women develop the full syndrome (Ekern, 2014; Touchette et al., 2011). Among college students the rate may be much higher (Zerbe, 2008).

Binges
People with bulimia nervosa may have between 1 and 30 binge episodes per week (Fairburn et al., 2008). In most cases, they carry out the binges in secret. The person eats massive amounts of food very rapidly, with minimal chewing—usually sweet, high-calorie foods with a soft texture, such as ice cream, cookies, doughnuts, and sandwiches. The food is hardly tasted or thought about. Binge eaters consume an average of 3400 calories during an episode. Some individuals consume as many as 10,000 calories.

Binges are usually preceded by feelings of great tension. The person feels irritable, “unreal,” and powerless to control an overwhelming need to eat “forbidden” foods. During the binge, the person feels unable to stop eating (APA, 2013). Although the binge itself may be experienced as pleasurable in the sense that it relieves the unbearable tension, it is followed by feelings of extreme self-blame, shame, guilt, and depression, as well as fears of gaining weight and being discovered (Sanftner & Tantillo, 2011; Goss & Allan, 2009).

Compensatory Behaviors
After a binge, people with bulimia nervosa try to compensate for and undo its effects. Many resort to vomiting, for example. But vomiting actually fails to prevent the absorption of half of the calories consumed during a binge. Furthermore, repeated vomiting affects one’s general ability to feel satiated; thus it leads to greater hunger and more frequent and intense binges. Similarly, the use of laxatives or diuretics largely fails to undo the caloric effects of bingeing (Fairburn et al., 2008).

Vomiting and other compensatory behaviors may temporarily relieve the uncomfortable physical feelings of fullness or reduce the feelings of anxiety and self-disgust attached to binge eating (Stewart & Williamson, 2008). Over time, however, a cycle develops in which purging allows more bingeing, and bingeing necessitates more purging. The cycle eventually causes people with the disorder to feel.

Eating for sport
Many people go on occasional eating binges. In fact, sometimes binges are officially endorsed, as you see in this photo from the annual Nathan’s Famous International Hot Dog Eating Contest in Brooklyn’s Coney Island, New York. However, people are considered to have an eating disorder only when the binges recur, the pattern endures, and the issues of weight or shape dominate self-evaluation.

Climate Control
Women who live in warmer climates (where more revealing clothing is worn) have lower weight, engage in more binge eating and purging, and have more body image concerns than women who live in cooler climates (Sloan, 2002).
powerless and disgusted with themselves (Sanftner & Tantillo, 2011; Hayaki et al., 2002). Most recognize fully that they have an eating disorder. Lindsey, the woman we met earlier, recalls how the pattern of binge eating, purging, and self-disgust took hold while she was a teenager in boarding school.

As with anorexia nervosa, a bulimic pattern typically begins during or after a period of intense dieting, often one that has been successful and earned praise from family members and friends (Stice & Pressnell, 2010; Couturier & Lock, 2006). Studies of both animals and humans have found that normal research participants placed on very strict diets also develop a tendency to binge (Pankevich et al., 2010; Eifert et al., 2007). Some of the participants in the conscientious objector “starvation study,” for example, later binged when they were allowed to return to regular eating, and a number of them continued to be hungry even after large meals (Keys et al., 1950).

Bulimia Nervosa Versus Anorexia Nervosa

Bulimia nervosa is similar to anorexia nervosa in many ways. Both disorders typically begin after a period of dieting by people who are fearful of becoming obese; driven to become thin; preoccupied with food, weight, and appearance; and struggling with depression, anxiety, obsessiveness, and the need to be perfect (Boone et al., 2014; Holm-Denoma et al., 2014). People with either of the disorders have a heightened risk of suicide attempts (Suokas et al., 2014; Keel & McCormick, 2010). Substance abuse may accompany either disorder, perhaps beginning with the excessive use of diet pills (Mann et al., 2014; Steiger & Israel, 2010). People with either disorder believe that they weigh too much and look too heavy regardless of their actual weight or appearance (Boone et al., 2014; Siep et al., 2011) (see InfoCentral on the next page). And both disorders are marked by disturbed attitudes toward eating (Alvarenga et al., 2014).

Yet the two disorders also differ in important ways. Although people with either disorder worry about the opinions of others, those with bulimia nervosa tend to be more concerned about pleasing others, being attractive to others, and
BODY DISSATISFACTION

People who evaluate their weight and shape negatively are experiencing body dissatisfaction. Around 73% of all girls and women are dissatisfied with their bodies, compared with 56% of all boys and men (Mintem et al., 2014). The vast majority of dissatisfied females believe they are overweight; in contrast, half of dissatisfied males consider themselves overweight and half consider themselves underweight. The factors most closely tied to body dissatisfaction are perfectionism and unrealistic expectations (Wade & Tiggemann, 2013). Body dissatisfaction is the single most powerful contributor to dieting and to the development of eating disorders.

Body dissatisfaction correlates with...

Unfavorable peer comparisons: 0.55
Low self-esteem: 0.52
Negative parental attitude about weight: 0.30
Unfavorable media comparisons: 0.26

Body dissatisfaction correlates with...

Overall Appearance:
- Women: 56%
- Men: 43.9%
Stomach:
- Women: 71%
- Men: 63%
Weight:
- Women: 66%
- Men: 52%
Hips/Thighs:
- Women: 61%
- Men: 29%

Adolescents and body dissatisfaction

Females of all ages tend to be dissatisfied with their bodies, but the biggest leap in dissatisfaction occurs when girls transition from early to mid-adolescence (Mäkinen et al., 2012).

Individuals with high body dissatisfaction are more prone to...

- Eating disorders
- Depressive disorders
- Anxiety disorders
- Body dysmorphic disorder
- Problems in interpersonal relationships
- Difficulties at work

Social media and body dissatisfaction

- The more time teenage girls spend on social media, the higher their body dissatisfaction.
- 86% of teens say that social network sites hurt their body confidence.

Examples of negative body thoughts:

- "I hate my thighs, my stomach, and my arms."
- "I look disgusting."
- "I’m obese. All the pretty girls are size 2."

97% of women have at least one negative thought about their bodies each day. On average, a woman has 13 negative body thoughts each day.
having intimate relationships (Zerbe, 2010, 2008; Eddy et al., 2004). They also tend
to be more sexually experienced and active than people with anorexia nervosa
(Gonidakis et al., 2014). Particularly troublesome, they are more likely to have
long histories of mood swings, become easily frustrated or bored, and have trouble
coping effectively or controlling their impulses and strong emotions (Boone et al.,
2014; Lilienfeld, 2011; Halmi, 2010). As many as one-third of those with bulimia
nervosa display the characteristics of a personality disorder, particularly borderline
personality disorder, which you will be looking at more closely in Chapter 16
(Reas et al., 2013; Rowe et al., 2011, 2010).

Another difference is the nature of the medical complications that accompany
the two disorders (Corega et al., 2014; Birmingham, 2011; Mitchell & Crow, 2010).
Only half of women with bulimia nervosa are amenorrheic or have very irregular
menstrual periods, compared with almost all of those with anorexia nervosa. On the
other hand, repeated vomiting bathes teeth and gums in hydrochloric acid, leading
some women with bulimia nervosa to have serious dental problems, such as break-
down of enamel and even loss of teeth. Moreover, frequent vomiting or chronic
diarrhea (from the use of laxatives) can cause dangerous potassium deficiencies,
which may lead to weakness, intestinal disorders, kidney disease, or heart damage.

Binge-Eating Disorder

Like those with bulimia nervosa, people with binge-eating disorder engage in
repeated eating binges during which they feel no control over their eating (APA,
2013). However, they do not perform inappropriate compensatory behavior (see
Table 11-3). As a result of their frequent binges, around two-thirds of people with
binge-eating disorder become overweight or even obese (Brauhardt et al., 2014;
Claudino & Morgan, 2012).

Binge-eating disorder was first recognized more than 50 years ago as a pattern
common among many overweight people (Stunkard, 1959). It is important to
recognize, however, that most overweight people do not engage in repeated binges;
their weight results from frequent overeating and/or a combination of biological,
psychological, and sociocultural factors (ANAD, 2014; Claudino & Morgan 2012).

Between 2 and 7 percent of the population have binge-eating disorder (Smink
et al., 2013; Stice et al., 2013; Hudson et al., 2007). The binges that characterize this
pattern are similar to those seen in bulimia nervosa, particularly the amount of food
eaten and the sense of loss of control experienced during the binge. Moreover, like
people with bulimia nervosa or anorexia nervosa, those with binge-eating disorder
typically are preoccupied with food, weight, and appearance; base their evaluation
of themselves largely on their weight and shape; misperceive their body size and are
extremely dissatisfied with their body; struggle with feelings of depression, anxiety,
and perfectionism; may abuse substances; and typically first develop the disorder
in adolescence or young adulthood (Brauhardt et al., 2014; Pearl et al., 2014; Stice
et al., 2013). On the other hand, although they aspire to limit their eating, people
with binge-eating disorder are not as driven to thinness as those with anorexia
nervosa and bulimia nervosa. Also, unlike the other eating disorders, binge-eating
disorder does not necessarily begin with efforts at extreme dieting. Nor are there
large gender differences in the prevalence of binge-eating disorder (ANAD, 2014;
Gruca et al., 2007).

What Causes Eating Disorders?

Most of today’s theorists and researchers use a multidimensional risk perspec-
tive to explain eating disorders. That is, they identify several key factors that place a
person at risk for these disorders (Jacobi & Fittig, 2010). The more of these factors
that are present, the more likely it is that a person will develop an eating disorder. The most common of these are psychological, biological, and sociocultural factors. As you will see, most of the factors that have been cited and investigated center on anorexia nervosa and bulimia nervosa. Binge-eating disorder, identified as a clinical syndrome more recently, is only now being broadly investigated. Which of these factors are also at work in this “newer” disorder will probably become clearer in the coming years.

**Psychodynamic Factors: Ego Deficiencies**

Hilde Bruch, a pioneer in the study and treatment of eating disorders, was mentioned earlier in this chapter. Bruch developed a largely psychodynamic theory of the disorders. She argued that disturbed mother–child interactions lead to serious *ego deficiencies* in the child (including a poor sense of independence and control) and to severe *perceptual disturbances* that jointly help produce disordered eating (Bruch, 2001, 1991, 1962).

According to Bruch, parents may respond to their children either effectively or ineffectively. *Effective parents* accurately attend to their children’s biological and emotional needs, giving them food when they are crying from hunger and comfort when they are crying out of fear. *Ineffective parents*, by contrast, fail to attend to their children’s needs, deciding that their children are hungry, cold, or tired without correctly interpreting the children’s actual condition. They may feed their children when their children are anxious rather than hungry, or comfort them when they are tired rather than anxious. Children who receive such parenting may grow up confused and unaware of their own internal needs, not knowing for themselves when they are hungry or full and unable to identify their own emotions.

Because they cannot rely on internal signals, these children turn instead to external guides, such as their parents. They seem to be “model children,” but they fail to develop genuine self-reliance and “experience themselves as not being in control of their behavior, needs, and impulses, as not owning their own bodies” (Bruch, 1973, p. 55). Adolescence increases their basic desire to establish independence, yet they feel unable to do so. To overcome their sense of helplessness, they seek excessive control over their body size and shape and over their eating habits. Helen, an 18-year-old patient of Bruch’s, described such needs and efforts:

> There is a peculiar contradiction—everybody thinks you’re doing so well and everybody thinks you’re great, but your real problem is that you think that you are not good enough. You are afraid of not living up to what you think you are expected to do. You have one great fear, namely that of being ordinary, or average, or common—just not good enough. This peculiar dieting begins with such anxiety. You want to prove that you have control, that you can do it. The peculiar part of it is that it makes you feel good about yourself, makes you feel “I can accomplish something.” It makes you feel “I can do something nobody else can do.”

*(Bruch, 1978, p. 128)*

Clinical reports and research have provided some support for Bruch’s theory (Holtom-Viesel & Allan, 2014; Schultz & Laessle, 2012; Zerbe, 2010). Clinicians have observed that the parents of teenagers with eating disorders do tend to define

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**Notes:**

- *binge-eating disorder* A disorder marked by frequent binges but not extreme compensatory behaviors.
- **multidimensional risk perspective** A theory that identifies several kinds of risk factors that are thought to combine to help cause a disorder. The more factors present, the greater the risk of developing the disorder.
their children’s needs rather than allow the children to
define their own needs (Ihle et al., 2005; Steiner et al.,
1991). When Bruch interviewed the mothers of 51
children with anorexia nervosa, many proudly recalled
that they had always “anticipated” their young child’s
needs, never permitting the child to “feel hungry”
(Bruch, 1973).

Research has also supported Bruch’s belief that peo-
ple with eating disorders perceive internal cues, includ-
ing emotional cues, inaccurately (Lavender et al., 2014;
Siep et al., 2011; Fairburn et al., 2008). When research
participants with an eating disorder are anxious or upset,
for example, many of them mistakenly think they are also
hungry (see Figure 11-2), and they respond as they might
respond to hunger—by eating. In fact, people with eating
disorders are often described by clinicians as
alexithymic, meaning they have great difficulty putting descriptive la-

bels on their feelings (Zerbe, 2010, 2008). And finally,
studies support Bruch’s argument that people with eating
disorders rely excessively on the opinions, wishes, and
views of others (see MindTech on the next page). They
are more likely than other people to worry about how
others view them, to seek approval, to be conforming, and to feel a lack of control
over their lives (Amianto et al., 2011; Travis & Meltzer, 2008).

Cognitive Factors
If you look closely at Bruch’s explanation of eating disorders, you’ll see that it
contains several cognitive ideas. She held, for example, that as a result of ineffective
parenting, people with eating disorders improperly label their internal sensations
and needs, generally feel little control over their lives, and in turn, want to have
excessive levels of control over their body size, shape, and eating habits. According
to cognitive theorists, these deficiencies contribute to a broad cognitive distortion
that lies at the center of disordered eating, namely, people with anorexia nervosa
and bulimia nervosa judge themselves—often exclusively—based
on their shape and weight and their ability to control them
(Murphy et al., 2010; Fairburn et al., 2008). This “core pathology,”
say cognitive theorists, gives rise to all other aspects of the disor-
ders, including the repeated efforts to lose weight and the preoc-
cupation with thoughts about shape, weight, and eating.

As you saw earlier in the chapter, research indicates that people
with eating disorders do indeed display such cognitive deficiencies
(Siep et al., 2011; Eifert et al., 2007). Although studies have not clarified that such
deficiencies are the cause of eating disorders, many cognitive-behavioral therapists
process from this assumption and center their treatment for the disorders on
correcting the clients’ cognitive distortions and their accompanying behaviors. As
you’ll soon see, cognitive-behavioral therapies of this kind are among the most
widely used of all treatments for eating disorders (Fairburn et al., 2008).

Depression
Many people with eating disorders, particularly those with bulimia nervosa, have
symptoms of depression (Vögele & Gibson, 2010). This finding has led some theo-
rists to suggest that depressive disorders set the stage for eating disorders.
Clinicians, researchers, and other mental health practitioners try to combat psychological disorders—in person, in journals and books, and online. Unfortunately, today there are also other—more negative—forces operating that run counter to the work of mental health professionals. Among the most common are so-called dark sites of the Internet—sites with the goal of promoting behaviors that the clinical community, and most of society, consider abnormal and destructive. Pro-anorexia sites are a prime example of this phenomenon (Wooldridge et al., 2014).

The Eating Disorders Association reports that there are more than 500 pro-anorexia Internet sites, with names such as “Dying to Be Thin” and “Starving for Perfection” (Borzekowski et al., 2010). These sites are commonly called pro-Ana sites, using a girl named Ana as the personification of this eating disorder. Some of the sites view anorexia nervosa (and bulimia nervosa) as lifestyles rather than psychological disorders; others present themselves as nonjudgmental sites for people with anorexic features. Either way, the sites are enormously popular and appear to greatly outnumber “pro-recovery” web sites. This worries professionals and parents alike, although it is not yet clear how influential the sites actually are (Delforterie et al., 2014).

Most users of the sites exchange tips on how they can starve themselves and disguise their weight loss from family, friends, and doctors (Christodoulou, 2012). The sites also offer support and feedback about starvation diets. Many of the sites offer mottos, emotional messages, and photos and videos of extremely thin actresses and models as “thinspiration” (Mathis, 2014). One pro-Ana site sponsors a contest, “The Great Ana Competition,” and awards a diploma to the girl who consumes the fewest calories in a two-week period. Another site endorses what it calls the Pro-Anorexia Ten Commandments—assertions such as “Being thin is more important than being healthy” and “Thou shall not eat without feeling guilty” (Catan, 2007; Barrett, 2000).

The pro-Ana movement and its messages actually appear throughout the Internet—for example, on Web forums; social networks such as Facebook, Tumblr, and Live Journal; and video platforms such as YouTube, Vimeo, and Veoh (Syed-Abdul et al., 2013). Most online enterprises try to seek out and delete pro-Ana material and groups, taking the position that such messages promote self-harm (Peng, 2008). However, despite such efforts, the sites—and their pro-Ana messages—continue to flourish.

Many people worry that pro-Ana sites place vulnerable people at great risk, and they have called for more active efforts to ban these sites. Others argue, however, that despite their potential dangers, the sites represent basic freedoms that should not be violated—freedom of speech, for example, and perhaps even the freedom to do oneself harm.
Their claim is supported by four kinds of evidence. First, many more people with an eating disorder qualify for a clinical diagnosis of major depressive disorder than do people in the general population. Second, the close relatives of people with eating disorders seem to have a higher rate of depressive disorders than do close relatives of people without such disorders. Third, as you will soon see, many people with eating disorders, particularly bulimia nervosa, have low activity of the neurotransmitter serotonin, similar to the serotonin abnormalities found in people with depression. And finally, people with eating disorders are often helped by some of the same antidepressant drugs that reduce depression. Of course, although such findings suggest that depression may help cause eating disorders, other explanations are possible. For example, the pressure and pain of having an eating disorder may cause depression.

Biological Factors

Biological theorists suspect that certain genes may leave some people particularly susceptible to eating disorders (Starr & Kreipe, 2014; Helder & Collier, 2011). Consistent with this idea, relatives of people with eating disorders are up to six times more likely than other people to develop the disorders themselves (Thornton et al., 2011; Strober et al., 2001, 2000). Moreover, if one identical twin has anorexia nervosa, the other twin also develops the disorder in as many as 70 percent of cases; in contrast, the rate for fraternal twins, who are genetically less similar, is 20 percent. Similarly, in the case of bulimia nervosa, identical twins display a concordance rate of 23 percent, compared with a rate of 9 percent among fraternal twins (Thornton et al., 2011; Kendler et al., 1995, 1991).

One factor that has interested investigators is the possible role of serotonin. Several research teams have found a link between eating disorders and the genes responsible for the production of this neurotransmitter, and still others have measured low serotonin activity in many people with eating disorders (Phillips et al., 2014; Starr & Kreipe, 2014; Kaye, 2011). Given serotonin’s role in depression and obsessive-compulsive disorder—problems that often accompany eating disorders—it is possible that low serotonin activity has more to do with those other disorders than with the eating disorders per se. On the other hand, perhaps low serotonin activity contributes directly to eating disorders—for example, by causing the body to crave and binge on high-carbohydrate foods (Kaye et al., 2012, 2011, 2005, 2002, 2000).

Other biological researchers explain eating disorders by pointing to the hypothalamus, a part of the brain that regulates many bodily functions (Berthoud, 2012; Fetissov & Meguid, 2010; Higgins & George, 2007). Researchers have located two separate areas in the hypothalamus that help control eating. One, the lateral hypothalamus (LH), consisting of the side areas of the hypothalamus, produces hunger when it is activated. When the LH of a laboratory animal is stimulated electrically, the animal eats, even if it has been fed recently. In contrast, another area, the ventromedial hypothalamus (VMH), consisting of the bottom and middle of the hypothalamus, reduces hunger when it is activated. When the VMH is electrically stimulated, laboratory animals stop eating.

These areas of the hypothalamus and related brain structures are apparently activated by chemicals from the brain and body, depending on whether the person is eating or fasting (Schwartz, 2014; Petrovich, 2011). Two such brain chemicals are the natural appetite suppressants cholecystokinin (CCK) and glucagon-like peptide-1 (GLP-1) (Dossat et al., 2014; Tortorella et al., 2014; Turton et al., 1996). When one team of researchers collected and injected GLP-1 into the brains of rats, the chemical traveled to receptors in
the hypothalamus and caused the rats to reduce their food intake almost entirely even though they had not eaten for 24 hours. Conversely, when “full” rats were injected with a substance that blocked the reception of GLP-1 in the hypothalamus, they more than doubled their food intake.

Some researchers believe that the hypothalamus, related brain areas, and chemicals such as CCK and GLP-1, working together, comprise a “weight thermostat” of sorts in the body, which is responsible for keeping an individual at a particular weight level called the weight set point. Genetic inheritance and early eating practices seem to determine each person’s weight set point (Sullivan et al., 2011; Levin, 2010). When a person’s weight falls below his or her particular set point, the LH and certain other brain areas are activated and seek to restore the lost weight by producing hunger and lowering the body’s metabolic rate, the rate at which the body expends energy. When a person’s weight rises above his or her set point, the VMH and certain other brain areas are activated, and they try to remove the excess weight by reducing hunger and increasing the body’s metabolic rate.

According to the weight set point theory, when people diet and fall to a weight below their weight set point, their brain starts trying to restore the lost weight. Hypothalamic and related brain activity produce a preoccupation with food and a desire to binge. They also trigger bodily changes that make it harder to lose weight and easier to gain weight, however little is eaten (Monteleone, 2011; Higgins & George, 2007). Once the brain and body begin conspiring to raise weight in this way, dieters actually enter into a battle against themselves. Some people apparently manage to shut down the inner “thermostat” and control their eating almost completely. These people move toward restricting-type anorexia nervosa. For others, the battle spirals toward a binge-purge or binge-only pattern. Although the weight set point explanation has received considerable debate in the clinical field, it remains widely accepted by theorists and practitioners.

Societal Pressures

Eating disorders are more common in Western countries than in other parts of the world (see PsychWatch on the next page). Thus, many theorists believe that Western standards of female attractiveness are partly responsible for the emergence of the disorders (Levine & Maine, 2010; Russo & Tartaro, 2008). Western standards of female beauty have changed throughout history, with a noticeable shift in preference toward a thin female frame in recent decades (Gilbert et al., 2005). One study that tracked the height, weight, and age of contestants in the Miss America Pageant from 1959 through 1978 found an average decline of 0.28 pound per year among the contestants and 0.37 pound per year among winners (Garner et al., 1980). The researchers also examined data on all Playboy magazine centerfold models over the same time period and found that the average weight, bust, and hip measurements of these women had decreased steadily. More recent studies of Miss America contestants and Playboy centerfolds indicate that these trends have continued (Rubinstein & Caballero, 2000).

Because thinness is especially valued in the subcultures of performers, fashion models, and certain athletes, members of these groups are likely to be particularly concerned and/or criticized about their weight. For example, after undergoing an inpatient treatment for eating disorders, many models and fashion icons seek to maintain their thin figure through strict dieting and exercise regimens. This societal pressure to maintain a certain level of thinness can be detrimental to the mental and physical health of those involved. It is crucial to recognize the impact of societal standards and to support individuals in achieving and maintaining healthy body weight.
program for eating disorders, the popular singer and rapper Kesha recently wrote, “The music industry has set unrealistic expectations for what a body is supposed to look like, and I started becoming overly critical of my own body because of that” (Sebert, 2014).

Studies have found that performers, models, and athletes are indeed more prone than others to anorexia nervosa and bulimia nervosa (Arcelus, Witcomb, & Mitchell, 2014; Martinsen & Sundgot-Borgen, 2013). In fact, many famous young women from these fields have publicly acknowledged grossly disordered eating patterns over the years. Surveys of athletes at colleges around the United States reveal that more than 9 percent of female college athletes suffer from an eating disorder and at least another 33 percent display eating behaviors that put them at risk for such disorders (Ekern, 2014; Kerr et al., 2007; Johnson, 1995). A full 20 percent of surveyed gymnasts appear to have an eating disorder (see Figure 11-3 on the next page).
Attitudes toward thinness may also help explain economic differences in the rates of eating disorders. In the past, women in the upper socioeconomic classes expressed more concern about thinness and dieting than women of the lower socioeconomic classes (Margo, 1985; Stunkard, 1975). Correspondingly, anorexia nervosa and bulimia nervosa were more common among women higher on the socioeconomic scale (Foreyt et al., 1996; Rosen et al., 1991). In recent years, however, dieting and preoccupation with thinness have increased to some degree in all socioeconomic classes, as has the prevalence of these eating disorders (Starr & Kreipe, 2014; Ernsberger, 2009).

Western society not only glorifies thinness but also creates a climate of prejudice against overweight people (Levine & Maine, 2010; Goode & Vail, 2008). Whereas slurs based on ethnicity, race, and gender are considered unacceptable, cruel jokes about obesity are standard fare on the Web and television and in movies, books, and magazines. Research indicates that the prejudice against obese people is deep-rooted (Grilo et al., 2005). Prospective parents who were shown pictures of a chubby child and a medium-weight or thin child rated the former as less friendly, energetic, intelligent, and desirable than the latter. In another study, preschool children who were given a choice between a chubby and a thin rag doll chose the thin one, although they could not say why. It is small wonder that as many as half of elementary school girls have tried to lose weight and 61 percent of middle school girls are currently dieting (Ekern, 2014; Hill, 2006; Stewart, 2004).

Given these trends, it is not totally surprising that a recent survey of 248 adolescent girls directly tied eating disorders and body dissatisfaction to social networking, Internet activity, and television browsing (Latzer, Katz, & Spivak, 2011). The survey found that the respondents who spent more time on Facebook were more likely to display eating disorders, have negative body image, eat in dysfunctional ways, and want to diet. Those who spent more time on fashion and music Web sites and those who viewed more gossip- and leisure-related television programs showed similar tendencies.

<table>
<thead>
<tr>
<th>Percentage Who Display Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage in at least one self-destructive weight-control behavior</td>
</tr>
<tr>
<td>Ingest diet pills</td>
</tr>
<tr>
<td>Induce vomiting</td>
</tr>
<tr>
<td>Use laxatives</td>
</tr>
<tr>
<td>Use diuretics</td>
</tr>
</tbody>
</table>

### Dangerous shortcuts

According to surveys, in sports ranging from field hockey to gymnastics, many female athletes use one or more self-destructive methods to control their weight (Van Durme et al., 2012; Kerr et al., 2007; Taylor & Ste-Marie, 2001). One study found that close to two-thirds of female college gymnasts engage in at least one such behavior. (Information from: Rosen & Hough, 1988; Rosen et al., 1986.)

**SPARK Movement**

Members of SPARK Movement, a group of high school girls dedicated to changing how female shapes and weight are portrayed in the media, recently conducted a mock fashion show on the streets of New York City. The group called on the editors of Teen Vogue magazine to stop altering the bodies and faces of girls displayed in the magazine’s photos.
Family Environment

Families may play an important role in the development and maintenance of eating disorders (Holtom-Viesel & Allan, 2014; Hoste, Lebow, & Le Grange, 2014). Research suggests that as many as half of the families of people with anorexia nervosa or bulimia nervosa have a long history of emphasizing thinness, physical appearance, and dieting. In fact, the mothers in these families are more likely to diet themselves and to be generally perfectionistic than are the mothers in other families (Zerbe, 2008; Woodside et al., 2002). Tina, a 16-year-old, describes her view of the roots of her eating disorder:

> When I was a kid, say 6 or 7, my Mom and I would go to the drugstore all the time. She was heavy and bought all kinds of books and magazines on how to lose weight. Whenever we talked, like after I got home from school, it was almost always about dieting and how to lose weight... I [went] on diets with my Mom, to keep her company.

> I just got better at it than she did. My eating disorder is my Mom’s therapy... It’s also the way we have time together—working on the diets and exercise and all of that. We’ve stopped talking about diets since I got anorexia, and now I don’t know what we can talk about.

(Zerbe, 2008, pp. 20–21)

Abnormal interactions and forms of communication within a family may also set the stage for an eating disorder (Holtom-Viesel, & Allan, 2014; Hoste et al., 2014). Family systems theorists argue that the families of people who develop eating disorders are often dysfunctional to begin with and that the eating disorder of one member is a reflection of the larger problem. Influential family theorist Salvador Minuchin, for example, believes that what he calls an enmeshed family pattern often leads to eating disorders (Olson, 2011; Minuchin et al., 2006).

In an enmeshed system, family members are overinvolved in each other’s affairs and overconcerned with the details of each other’s lives. On the positive side, enmeshed families can be affectionate and loyal. On the negative side, they can be clingy and foster dependency. Parents are too involved in the lives of their children, allowing little room for individuality and independence. Minuchin argues that adolescence poses a special problem for these families. The teenager’s normal push for independence threatens the family’s apparent harmony and closeness. In response, the family may subtly force the child to take on a “sick” role—to develop an eating disorder or some other illness. The child’s disorder enables the family to maintain its appearance of harmony. A sick child needs her family, and family members can rally to protect her. Some case studies have supported such family systems explanations, but systematic research fails to show that particular family patterns consistently set the stage for the development of eating disorders (Holtom-Viesel & Allan, 2014; Konstantellou et al., 2011). In fact, the families of people with either anorexia nervosa or bulimia nervosa vary widely.

Multicultural Factors: Racial and Ethnic Differences

In the popular 1995 movie Clueless, Cher and Dionne, wealthy teenage friends of different races, have similar tastes, beliefs, and values about everything from boys to schoolwork. In particular, they have the same kinds of eating habits and beauty ideals, and they are even similar in weight and physical form. But does the story of
these young women reflect the realities of white American and African American females in our society?

In the early 1990s, the answer to this question appeared to be a resounding no. Most studies conducted up to the time of the movie’s release indicated that the eating behaviors, values, and goals of young African American women were considerably healthier than those of young white American women (Lovejoy, 2001; Cash & Henry, 1995; Parker et al., 1995). A widely publicized 1995 study at the University of Arizona, for example, found that the eating behaviors and attitudes of young African American women were more positive than those of young white American women. It found, specifically, that nearly 90 percent of the white American respondents were dissatisfied with their weight and body shape, compared with around 70 percent of the African American teens.

The study also suggested that white American and African American adolescent girls had different ideals of beauty. The white American teens, asked to define the “perfect girl,” described a girl of 5’7” weighing between 100 and 110 pounds—proportions that mirror those of so-called supermodels. Attaining a perfect weight, many said, was the key to being happy and popular. In contrast, the African American respondents emphasized personality traits over physical characteristics. They defined the “perfect” African American girl as smart, fun, easy to talk to, not conceited, and funny; she did not necessarily need to be “pretty,” as long as she was well groomed. The body dimensions the African American teens described were more attainable for the typical girl; they favored fuller hips, for example. Moreover, the African American respondents were less likely than the white American respondents to diet for extended periods.

Unfortunately, research conducted over the past decade suggests that body image concerns, dysfunctional eating patterns, and anorexia nervosa and bulimia nervosa are on the rise among young African American women as well as among women of other minority groups (Starr & Kreipe, 2014; Gilbert, 2011; Levine & Smolak, 2010). For example, a survey conducted by Essence—the largest-circulation magazine geared toward African Americans—and studies by several teams of researchers have found that the risk of today’s African American women developing these eating disorders is approaching that of white American women. Similarly, African American women’s attitudes about body image, weight, and eating are closing in on those of white American women (Annunziato et al., 2007). In the Essence

Salt-N-Pepa: Behind the scenes
When the pioneering female rap group Salt-N-Pepa suddenly disbanded in 2002, it was viewed by most as a “typical” band breakup. In fact, however, one of the performers, Cheryl “Salt” James (shown here), had been suffering from bulimia nervosa. She quit performing in order to recover from the disorder and to escape the pressures of her fame, including, in her words, “the pressure to be beautiful and management telling me ‘You’re gaining weight.’” With James now recovered, the group has reunited and is touring again.
survey, 65 percent of African American respondents reported dieting, 39 percent said that food controlled their lives, 19 percent avoided eating when hungry, 17 percent used laxatives, and 4 percent vomited to lose weight.

The shift in the eating behaviors and eating problems of African American women appears to be partly related to their acculturation (Kroon Van Diest et al., 2014; Gilbert, 2011). One study compared African American women at a predominately white American university with those at a predominately African American university. Those at the former school had significantly higher depression scores, and those scores were positively correlated with eating problems (Ford, 2000).

Still other studies indicate that Hispanic American female adolescents and young adults engage in disordered eating behaviors and express body dissatisfaction at rates about equal to those of white American women (Levine & Smolak, 2010; Germer, 2005). Moreover, those who consider themselves more oriented to white American culture have particularly high rates of anorexia nervosa and bulimia nervosa (Cachelin et al., 2006). These eating disorders also appear to be on the increase among young Asian American women and young women in several Asian countries (Pike et al., 2013; Stewart & Williamson, 2008). In one Taiwanese study, for example, 65 percent of the underweight girls aged 10 to 14 years said they wished they were thinner (Wong & Huang, 2000).

Despite these trends, the public apparently still believes that women from minority groups are relatively unlikely to develop anorexia nervosa and bulimia nervosa. In one study, 160 undergraduates read the diary of a 16-year-old girl, including passages that revealed disturbed patterns of eating (Gordon, Perez, & Joiner, 2002). The participants who were told that the diarist was white American were much more likely to recognize that she had an eating disorder than were those who were told she was African American or Hispanic American.

One would expect clinical professionals to be wiser in such assessments, and they are—about Hispanic Americans, but not about African Americans. Several years after conducting the study just mentioned, the research team ran the same design, except that they used mental health professionals and clinical psychology graduate students as participants (Gordon et al., 2006). These participants were more likely to believe that the diarist had an eating disorder if she were labeled white American or Hispanic American.

One would expect clinical professionals to be wiser in such assessments, and they are—about Hispanic Americans, but not about African Americans. Several years after conducting the study just mentioned, the research team ran the same design, except that they used mental health professionals and clinical psychology graduate students as participants (Gordon et al., 2006). These participants were more likely to believe that the diarist had an eating disorder if she were labeled white American or Hispanic American than if she were labeled African American.

Multicultural Factors: Gender Differences

Males account for only 5 to 10 percent of all people with anorexia nervosa and bulimia nervosa. The reasons for this striking gender difference are not entirely clear, but Western society’s double standard for attractiveness is, at the very least, one reason. Our society’s emphasis on a thin appearance is clearly aimed at women much more than men, and some theorists believe that this difference has made women much more inclined to diet and more prone to eating disorders. Surveys of college men have, for example, found that the majority select “muscular, strong and broad shoulders” to describe the ideal male body and “thin, slim, slightly underweight” to describe the ideal female body (Mayo & George, 2014; Toro et al., 2005).

A second reason for the different rates of anorexia nervosa and bulimia nervosa between men and women may be the different methods of weight loss favored by the two genders. According to some clinical observations, men are more likely to use exercise to lose weight, whereas women more often diet (Gadalla, 2009; Toro et al., 2005). And, as you have read, dieting often precedes the onset of these eating disorders.

Why do you think that the prevalence of eating disorders among men has been on the increase in recent years?
of men with these eating disorders had jobs or played sports for which weight control was important, compared with 13 percent of women with such disorders (Braun, 1996). The highest rates of male eating disorders have been found among jockeys, wrestlers, distance runners, body builders, and swimmers. Jockeys commonly spend hours before a race in a sauna, shedding up to seven pounds of weight, and may restrict their food intake, abuse laxatives and diuretics, and force vomiting (Kerr et al., 2007). Herb McCauley, a top jockey who competed in more than 20,000 races and earned $70 million in winnings, suffered from an eating disorder for 20 years, until after his career ended. Using the laxative Ex-Lax and the diuretic Lasix to help him purge, he now says, “I took so many slabs of Ex-Lax that to this day I can’t eat a Hershey bar” (Fountaine, 2000, p. 2). Similarly, male wrestlers in high school and college commonly restrict their food for up to three days before a match in order to “make weight.” Some lose up to five pounds of water weight by practicing or running in several layers of warm or rubber clothing before weighing in for a match.

For other men who develop anorexia nervosa or bulimia nervosa, body image appears to be a key factor, just as it is in women (Mayo & George, 2014; Mond et al., 2014). Many report that they want a “lean, toned, thin” shape similar to the ideal female body, rather than the muscular, broad-shouldered shape of the typical male ideal (Morgan, 2012; Hildebrandt & Alfano, 2009; Soban, 2006).

Still other men seem to be caught up in a different kind of eating disorder, called reverse anorexia nervosa or muscle dysmorphobia. Men with this disorder are very muscular but still see themselves as scrawny and small and therefore continue to strive for a “perfect” body through extreme measures such as excessive weight lifting or the abuse of steroids (Morgan, 2012; Stewart & Williamson, 2008). People with muscle dysmorphobia typically feel shame about their bodies, and many have a history of depression, anxiety, and self-destructive compulsive behavior. About one-third of them also engage in related dysfunctional behaviors such as binge eating.

### How Are Eating Disorders Treated?

Today’s treatments for eating disorders have two goals. The first is to correct the dangerous eating pattern as quickly as possible. The second is to address the broader psychological and situational factors that have led to and maintain the eating problem. Family and friends can also play an important role in helping to overcome the disorder.

#### Treatments for Anorexia Nervosa

The immediate aims of treatment for anorexia nervosa are to help people regain their lost weight, recover from malnourishment, and eat normally again. Therapists must then help them to make psychological and perhaps family changes to lock in those gains.
How Are Proper Weight and Normal Eating Restored? A variety of treatment methods are used to help patients with anorexia nervosa gain weight quickly and return to health within weeks. In the past, treatment almost always took place in a hospital, but now it is often offered in day hospitals or outpatient settings (Raveneau et al., 2014; Keel & McCormick, 2010).

In life-threatening cases, clinicians may need to force tube and intravenous feedings on a patient who refuses to eat (Touyz & Carney, 2010; Tyre, 2005). Unfortunately, this use of force may cause the client to distrust the clinician. In contrast, clinicians using behavioral weight-restoration approaches offer rewards whenever patients eat properly or gain weight and offer no rewards when they eat improperly or fail to gain weight (Tacón & Caldera, 2001).

Perhaps the most popular weight-restoration technique in recent years has been a combination of supportive nursing care, nutritional counseling, and a relatively high-calorie diet—often called a nutritional rehabilitation program (Leclerc et al., 2013; Hart & Abraham, 2011; Croll, 2010). Here nurses gradually increase a patient’s diet over the course of several weeks, to more than 3,000 calories a day (Zerbe, 2010, 2008; Herzog et al., 2004). The nurses educate patients about the program, track their progress, provide encouragement, and help them recognize that their weight gain is under control and will not lead to obesity. In some programs, the nurses also use motivational interviewing, an intervention in which they motivate clients to actively make and follow through on constructive choices regarding their eating behaviors and their lives (Dray et al., 2014). Studies find that patients in nursing-care programs usually gain the necessary weight over 8 to 12 weeks.

How Are Lasting Changes Achieved? Clinical researchers have found that people with anorexia nervosa must overcome their underlying psychological problems in order to create lasting improvement. Therapists typically use a combination of education, psychotherapy, and family therapy to help reach this broader goal (Wade & Watson, 2012; Zerbe, 2010, 2008). Psychotropic drugs have also been helpful in some cases, but research has found that such medications are typically of limited benefit over the long-term course of anorexia nervosa (Starr & Kreipe, 2014; David et al., 2011).

COGNITIVE-BEHAVIORAL THERAPY A combination of behavioral and cognitive interventions are included in most treatment programs for anorexia nervosa. Such techniques are designed to help clients appreciate and alter the behaviors and thought processes that help keep their restrictive eating going (Fairburn & Cooper, 2014; Evans & Waller, 2011; Murphy et al., 2010). On the behavioral side, clients are typically required to monitor (perhaps by keeping a diary) their feelings, hunger levels, and food intake and the ties between these variables. On the cognitive side, they are taught to identify their “core pathology”—the deep-seated belief that they should in fact be judged by their shape and weight and by their ability to control these physical characteristics. The clients may also be taught alternative ways of coping with stress and of solving problems.

The therapists who use these approaches are particularly careful to help patients with anorexia nervosa recognize their need for independence and teach them more appropriate ways to exercise control (Pike et al., 2010). The therapists may also teach them to identify better and trust their internal sensations and feelings.
(Wilson, 2010; Fairburn et al., 2008). In the following session, a therapist tries to help a 15-year-old client recognize and share her feelings:

**Patient:** I don’t talk about my feelings; I never did.
**Therapist:** Do you think I’ll respond like others?
**Patient:** What do you mean?
**Therapist:** I think you may be afraid that I won’t pay close attention to what you feel inside, or that I’ll tell you not to feel the way you do—that it’s foolish to feel frightened, to feel fat, to doubt yourself, considering how well you do in school, how you’re appreciated by teachers, how pretty you are.

**Patient:** (Looking somewhat tense and agitated) Well, I was always told to be polite and respect other people, just like a stupid, faceless doll. (Affecting a vacant, doll-like pose)
**Therapist:** Do I give you the impression that it would be disrespectful for you to share your feelings, whatever they may be?
**Patient:** Not really; I don’t know.
**Therapist:** I can’t, and won’t, tell you that this is easy for you to do. . . . But I can promise you that you are free to speak your mind, and that I won’t turn away.

(Strober & Yager, 1985, pp. 368–369)

Finally, cognitive-behavioral therapists help clients with anorexia nervosa change their attitudes about eating and weight (Fairburn & Cooper, 2014; Evans & Waller, 2012; Pike et al., 2010) (see Table 11-4). The therapists may guide clients to identify, challenge, and change maladaptive assumptions, such as “I must always be perfect” or “My weight and shape determine my value” (Fairburn et al., 2008; Lask & Bryant-Waugh, 2000). They may also educate clients about the body distortions

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**BETWEEN THE LINES**

Teasing and Eating

When it comes to eating disorders, teasing is no laughing matter (Hilbert et al., 2013; Neumark-Sztainer et al., 2007). In one study, researchers found that adolescents who were teased about their weight by family members were twice as likely as nonteased teens of similar weight to become overweight within five years and 1.5 times more likely to become binge eaters and use extreme weight control measures.

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**table: 11-4**

Sample Items from the Eating Disorder Inventory

For each item, decide if the item is true about you ALWAYS (A), USUALLY (U), OFTEN (O), SOMETIMES (S), RARELY (R), or NEVER (N). Circle the letter that corresponds to your rating.

<table>
<thead>
<tr>
<th>A</th>
<th>U</th>
<th>O</th>
<th>S</th>
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<tbody>
<tr>
<td>I eat when I am upset.</td>
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<tr>
<td>I stuff myself with food.</td>
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<tr>
<td>I think about dieting.</td>
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<tr>
<td>I think that my thighs are too large.</td>
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<tr>
<td>I feel extremely guilty after overeating.</td>
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<tr>
<td>I am terrified of gaining weight.</td>
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<tr>
<td>I get confused as to whether or not I am hungry.</td>
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<tr>
<td>I have the thought of trying to vomit in order to lose weight.</td>
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<tr>
<td>I think my buttocks are too large.</td>
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<tr>
<td>I eat or drink in secrecy.</td>
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(Information from: Clausen et al., 2011; Garner, 2005; Garner, Olmsted, & Polivy, 1991, 1984.)
typical of anorexia nervosa and help them see that their own assessments of their size are incorrect. Even if a client never learns to judge her body shape accurately, she may at least reach a point where she says, “I know that a key feature of anorexia nervosa is a misperception of my own size, so I can expect to feel fat regardless of my actual size.”

Although cognitive-behavioral techniques are often of great help to clients with anorexia nervosa, research suggests that the techniques typically must be supplemented by other approaches to bring about better results (Zerbe, 2010, 2008). Family therapy, for example, is often included in treatment.

**CHANGING FAMILY INTERACTIONS** Family therapy can be an invaluable part of treatment for anorexia nervosa, particularly for children and adolescents with the disorder. As in other family therapy situations, the therapist meets with the family as a whole, points out troublesome family patterns, and helps the members make appropriate changes. In particular, family therapists may try to help the person with anorexia nervosa separate her feelings and needs from those of other members of her family. Although the role of family in the development of anorexia nervosa is not yet clear, research strongly suggests that family therapy (or at least parent counseling) can be helpful in the treatment of this disorder (Ambresin et al., 2014; Hoste et al., 2012; Lock, 2011; Zucker et al., 2011).

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**Calling for more assertive action**

According to many people, efforts to change the negative impact of the fashion industry and media on women have been woefully ineffective to date. Thus a feminist movement has emerged to more aggressively fight society’s “obsession with female thinness.” The movement’s slogan, “Riots Not Diets,” has already caught fire and now adorns bags, T-shirts, patches, cookies, glassware, and many other objects around the world.

**Mother:** I think I know what [Susan] is going through: all the doubt and insecurity of growing up and establishing her own identity. (Turning to the patient, with tears) If you just place trust in yourself, with the support of those around you who care, everything will turn out for the better.

**Therapist:** Are you making yourself available to her? Should she turn to you, rely on you for guidance and emotional support?

**Mother:** Well, that’s what parents are for.

**Therapist:** (Turning to patient) What do you think?

**Susan:** (To mother) I can’t keep depending on you, Mom, or everyone else. That’s what I’ve been doing, and it gave me anorexia. . . .

**Therapist:** Do you think your mom would prefer that there be no secrets between her and the kids—an open door, so to speak?

**Older sister:** Sometimes I do.

**Therapist:** (To patient and younger sister) How about you two?

**Susan:** Yeah. Sometimes it’s like whatever I feel, she has to feel.

**Younger sister:** Yeah.

*(Strober & Yager, 1985, pp. 381–382)*

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**What Is the Aftermath of Anorexia Nervosa?** The use of combined treatment approaches has greatly improved the outlook for people with anorexia nervosa, although the road to recovery can be difficult. The course and outcome of this disorder vary from person to person, but researchers have noted certain trends. On the positive side, weight is often quickly restored once treatment for the disorder begins (McDermott & Jaffa, 2005), and treatment gains may continue for years (Isohama & Isohama, 2014; Halburn, 2005). As many as 85 percent of patients continue to show improvement—either full or partial—when they are interviewed several years or more after their initial recovery (Isohama & Isohama, 2014; Brewerton & Costin, 2011; van Son et al., 2010).

Another positive note is that most females with anorexia nervosa menstruate again when they regain their weight, and other medical improvements follow

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**BETWEEN THE LINES**

**Fashion Downsizing**

In 1968, the average fashion model was 8 percent thinner than the typical woman. Today, models are 23 percent thinner (Tashakova, 2011; Derenne & Beresin, 2006).
Eating Disorders

(Mitchell & Crow, 2010; Zerbe, 2008). Also encouraging is that the death rate from anorexia nervosa seems to be falling (van Son et al., 2010). Earlier diagnosis and safer and faster weight-restoration techniques may account for this trend. Deaths that do occur are usually caused by suicide, starvation, infection, gastrointestinal problems, or electrolyte imbalance.

On the negative side, as many as 25 percent of persons with anorexia nervosa remain seriously troubled for years (Isomaa & Isomaa, 2014; Steinhausen, 2009). Furthermore, recovery, when it does occur, is not always permanent. At least one-third of recovered patients have recurrences of anorexic behavior, usually triggered by new stresses, such as marriage, pregnancy, or a major relocation (Stice et al., 2013; Eifert et al., 2007; Fennig et al., 2002). Even years later, many who have recovered continue to express concerns about their weight and appearance. Some still restrict their diets to a degree, feel anxiety when they eat with other people, or hold some distorted ideas about food, eating, and weight (Isomaa & Isomaa, 2014; Fairburn et al., 2008).

About half of those who have suffered from anorexia nervosa continue to have certain emotional problems—particularly depression, obsessiveness, and social anxiety—years after treatment. Such problems are particularly common in those who had not reached a fully normal weight by the end of treatment (Bodell & Mayer, 2011; Steinhausen, 2002).

The more weight persons have lost and the more time that passes before they enter treatment, the poorer the recovery rate (Fairburn et al., 2008). People who had psychological or sexual problems before the onset of the disorder tend to have a poorer recovery rate than those without such a history (Amianto et al., 2011; Finfgeld, 2002). People whose families are dysfunctional have less positive treatment outcomes (Holton-Viesel & Allan, 2014). Teenagers seem to have a better recovery rate than older patients (Richard, 2005; Steinhausen et al., 2000).

Treatments for Bulimia Nervosa

Treatment programs for bulimia nervosa are often offered in eating disorder clinics (Henderson et al., 2014). Such programs share the immediate goals of helping clients to eliminate their binge-purge patterns and establish good eating habits and the more general goal of eliminating the underlying causes of bulimic patterns. The programs emphasize education as much as therapy (Fairburn & Cooper, 2014; Zerbe, 2010, 2008). Cognitive-behavioral therapy is particularly helpful in cases of bulimia nervosa—perhaps even more helpful than in cases of anorexia nervosa (Fairburn & Cooper, 2014; Wonderlich et al., 2014). And antidepressant

A story of two billboards

In 1995, the Calvin Klein clothing brand posed young teenagers in sexually suggestive clothing ads (left). A public uproar forced the company to remove the ads from magazines and billboards across the United States, but by then, a point had been made—that extreme thinness was in vogue for female fashion and, indeed, for females of all ages. In contrast, the Nolita clothing brand launched a major ad campaign against excessive thinness in 2007, displaying anti-anorexia billboards throughout Italy (right). Here two young women stare at one such billboard—that of an emaciated naked woman appearing beneath the words “No Anorexia.” The billboard model, Isabelle Caro, died in 2010 of complications from anorexia nervosa.
Drug therapy, which is of limited help to people with anorexia nervosa, appears to be quite effective in many cases of bulimia nervosa (Starr & Kreipe, 2014; David et al., 2011).

Cognitive-Behavioral Therapy When treating clients with bulimia nervosa, cognitive-behavioral therapists employ many of the same techniques that they use to help treat people with anorexia nervosa. However, they tailor the techniques to the unique features of bulimia (for example, bingeing and purging behavior) and to the specific beliefs at work in bulimia nervosa.

Behavioral Techniques Therapists often instruct clients with bulimia nervosa to keep diaries of their eating behavior, changes in sensations of hunger and fullness, and the ebb and flow of other feelings (Stewart & Williamson, 2008). This helps the clients to observe their eating patterns more objectively and recognize the emotions and situations that trigger their desire to binge.

One team of researchers studied the effectiveness of an online version of the diary technique (Shapiro et al., 2010). They had 31 clients with bulimia nervosa, each an outpatient in a 12-week cognitive-behavioral therapy program, send nightly texts to their therapists, reporting on their bingeing and purging urges and episodes. The clients received feedback messages, including reinforcement and encouragement for the treatment goals they had been able to reach that day. The clinical researchers reported that by the end of therapy, the clients showed significant decreases in binges, purges, other bulimic symptoms, and feelings of depression.

Cognitive-behavioral therapists may also use the behavioral technique of exposure and response prevention to help break the binge-purge cycle. As you read in Chapter 5, this approach consists of exposing people to situations that would ordinarily raise anxiety and then preventing them from performing their usual compulsive responses until they learn that the situations are actually harmless and their compulsive acts unnecessary. For bulimia nervosa, the therapists require clients to eat particular kinds and amounts of food and then prevent them from vomiting to show that eating can be a harmless and even constructive activity that needs no undoing (Wilson, 2010; Williamson et al., 2004). Typically the therapist sits with the client while the client eats the forbidden foods and stays until the urge to purge has passed. Studies find that this treatment often helps reduce eating-related anxieties, bingeing, and vomiting.

Cognitive Techniques Beyond such behavioral techniques, a primary focus of cognitive-behavioral therapists is to help clients with bulimia nervosa recognize and change their maladaptive attitudes toward food, eating, weight, and shape (Waller et al., 2014; Wonderlich et al., 2014). The therapists typically teach the clients to identify and challenge the negative thoughts that regularly precede their urge to binge—“I have no self-control”; “I might as well give up”; “I look fat” (Fairburn & Cooper, 2014; Fairburn, 1985). They may also guide
Eating Disorders

clients to recognize, question, and eventually change their perfectionistic standards, sense of helplessness, and low self-concept (see PsychWatch below). Cognitive-behavioral approaches seem to help as many as 65 percent of patients stop bingeing and purging (Poulsen et al., 2014; Eifert et al., 2007).

Other Forms of Psychotherapy

Because of its effectiveness in the treatment of bulimia nervosa, cognitive-behavioral therapy is often tried first, before other therapies are considered. If clients do not respond to it, other approaches with promising but less impressive track records may then be tried. A common alternative is interpersonal psychotherapy, the treatment that is used to help improve interpersonal functioning (Kass et al., 2013; Tanofsky-Kraff & Wilfley, 2010). Psychodynamic therapy has also been used in cases of bulimia nervosa, but only a few research studies have tested and supported its effectiveness (Poulsen

PsychWatch

The Sugar Plum Fairy

In a November 2010 review of the New York City Ballet production of The Nutcracker, New York Times critic Alastair Macauley wrote that Jenifer Ringer, the 37-year-old dancer who played the part of the Sugar Plum Fairy, “looked as if she’d eaten one sugar plum too many” (Macauley, 2010). That harsh critique of the dancer’s weight and body set off a storm of protest throughout the country. Many regarded the reviewer’s comments as cruel, an example of the absurd aesthetic standards by which women are judged in our society—even a lithe and graceful ballet artist. The reviewer defended his position, arguing, “If you want to make your appearance irrelevant to criticism, do not choose ballet as a career” (Macauley, 2010). But, in the eyes of most observers, he had gone too far.

About the only person who reacted calmly in the face of this uproar was the dancer herself, Jenifer Ringer. She even noted that “as a dancer, I do put myself out there to be criticized, and my body is part of my art form” (Ringer, 2010). It turns out that the 2010 flak was hardly the first time that Ringer’s weight and appearance had been described in unflattering terms. In a 2014 autobiography, she has revealed that her body had been an object of criticism throughout much of her professional life.

Ringer began with the City Ballet as a teenager in 1989, and by 1995 she was soloing. According to her memoir, she was also developing bulimia nervosa while her career was on the rise. She fell into a pattern of overeating and over-exercising to compensate. As she puts it, “I had lost any sense of a center for self-esteem and self-worth” (Ringer, 2014).

Decades before Macauley’s 2010 critique, many of Ringer’s dance mentors were urging her to lose weight. She recalls how legendary choreographer Jerome Robbins exhorted her, “Come on. You just need to get the weight off. Just do it. We need you” (Ringer, 2014).

In fact, after a warning from a ballet master that she must “stop eating cheesecake,” Ringer’s contract with the ballet company was not renewed in 1997 (Ringer, 2014). She left dance at that time for a brief stint as an office worker.

After overcoming her eating disorder and regaining her self-esteem, Ringer rejoined the City Ballet in 1998. The next 16 years of dance represented a personal and professional triumph for her—a triumph that those harsh and unfair words in 2010 could not penetrate. By then, she was no longer an insecure person who judged herself and her body by the standards of others. Rather, as she states in her memoir, “I didn’t feel I was heavy, and someone else’s opinion of me had no power over me unless I allowed it” (Ringer, 2014).
The various forms of psychotherapy—cognitive-behavioral, interpersonal, and psychodynamic—are often supplemented by family therapy (Ambresin et al., 2014; Starr & Kreipe, 2014; le Grange, 2011). Cognitive-behavioral, interpersonal, and psychodynamic therapy may each be offered in either an individual or a group therapy format. Group formats, including self-help groups, give clients with bulimia nervosa an opportunity to share their concerns and experiences with one another. Group members learn that their disorder is not unique or shameful, and they receive support from one another, along with honest feedback and insights. In the group they can also work directly on underlying fears of displeasing others or being criticized. Research suggests that group formats are at least somewhat helpful for as many as 75 percent of people with bulimia nervosa (Valbak, 2001).

**Antidepressant Medications** During the past 15 years, antidepressant drugs—all forms of antidepressant drugs—have been used to help treat bulimia nervosa (Starr & Kreipe, 2014; Broft, Berner, & Walsh, 2010; McElroy et al, 2010). In contrast to people with anorexia nervosa, those with bulimia nervosa are often helped considerably by these drugs. According to research, the drugs help as many as 40 percent of patients, reducing their binges by an average of 67 percent and vomiting by 56 percent. Once again, drug therapy seems to work best in combination with other forms of therapy, particularly cognitive-behavioral therapy (Stewart & Williamson, 2008). Alternatively, some therapists wait to see whether cognitive-behavioral therapy or another form of psychotherapy is effective before trying antidepressants (Wilson, 2010, 2005).

**What Is the Aftermath of Bulimia Nervosa?** Left untreated, bulimia nervosa can last for years, sometimes improving temporarily but then returning. Treatment, however, produces immediate, significant improvement in approximately 40 percent of clients: they stop or greatly reduce their bingeing and purging, eat properly, and maintain a normal weight (Isomaa & Isomaa, 2014; Richard, 2005). Another 40 percent show a moderate response—at least some decrease in binge eating and purging. As many as 20 percent show little immediate improvement. Follow-up studies, conducted years after treatment, suggest that as many as 85 percent of people with bulimia nervosa have recovered, either fully or partially (Isomaa & Isomaa, 2014; Brewerton & Costin, 2011; Zeeck et al., 2011). Research also indicates that treatment helps many, but not all, people with bulimia nervosa attain lasting improvements in their overall psychological and social functioning (Keel et al., 2002, 2000; Stein et al., 2002).

Relapse can be a problem even among people who respond successfully to treatment (Stice et al., 2013; Olmsted et al., 2005). As with anorexia nervosa, relapses are usually triggered by a new life stress, such as an upcoming exam, a job change, marriage, or divorce (Liu, 2007; Abraham & Llewellyn-Jones, 1984). One study found that close to one-third of those who had recovered from bulimia nervosa relapsed within two years of treatment, usually within six months (Olmsted, Kaplan, & Rockert, 1994). Relapse is more likely among people who had longer histories of bulimia nervosa before treatment, had vomited more frequently during their disorder, continued to vomit at the end of treatment, had histories of substance abuse, made slower progress in the early stages of treatment, and continue to be lonely or to distrust others after treatment (Brewerton & Costin, 2011; Fairburn et al., 2004; Stewart, 2004).
Treatments for Binge-Eating Disorder

Given the key role of binges in both bulimia nervosa and binge-eating disorder (bingeing without purging), today’s treatments for binge-eating disorder are often similar to those for bulimia nervosa. In particular, cognitive-behavioral therapy, other forms of psychotherapy, and in some cases, antidepressant medications are provided to help reduce or eliminate the binge-eating patterns and to change disturbed thinking such as being overly concerned with weight and shape (Fischer et al., 2014; Reas & Grilo, 2014; Fairburn, 2013). Evidence is emerging that these kinds of interventions are indeed often helpful, at least in the short run (Fischer et al., 2014). Of course, most people with binge-eating disorder also are overweight, a problem that requires additional kinds of intervention and is often resistant to long-term improvement (Grilo et al., 2014; Claudino & Morgan, 2012; Zweig & Leahy, 2012).

Now that binge-eating disorder has been identified and is receiving considerable study, it is likely that specialized treatment programs that target the disorder’s unique issues will emerge in the coming years (Grilo, 2014). In the meantime, relatively little is known about the aftermath of this disorder (Claudino & Morgan, 2012). In one follow-up study of hospitalized patients with severe symptoms, one-third of those who had been treated still had the disorder 12 years after hospitalization, and 36 percent were still significantly overweight (Fichter et al., 2008). As with the other eating disorders, many of those who initially recover from binge-eating disorder continue to have a relatively high risk of relapse (ANAD, 2014; Stice et al., 2013).

PUTTING IT...together

A Standard for Integrating Perspectives

You have observed throughout this book that it is often useful to consider sociocultural, psychological, and biological factors jointly when trying to explain or treat various forms of abnormal functioning. Nowhere is the argument for combining these perspectives more powerful than in the case of eating disorders. According to the multidimensional risk perspective embraced by many theorists, varied factors act together to spark the development of eating disorders, particularly anorexia nervosa and bulimia nervosa. One case may result from societal pressures, autonomy issues, the physical and emotional changes of adolescence, and hypothalamic overactivity, while another case may result from family pressures, depression, and the effects of dieting. No wonder that the most helpful treatment programs for eating disorders combine sociocultural, psychological, and biological approaches. When the multidimensional risk perspective is applied to eating disorders, it demonstrates that scientists and practitioners who follow very different models can work together productively in an atmosphere of mutual respect.

Research on eating disorders keeps revealing new surprises that force clinicians to adjust their theories and treatment programs. For example, researchers have learned that people with eating disorders sometimes feel strangely positive about their symptoms (Williams & Reid, 2010; Serpell & Treasure, 2002). One recovered patient, for example, said, “I still miss my bulimia as I would an old friend who has died” (Cauwels, 1983, p. 173). Given such feelings, many therapists now help clients...
work through grief reactions over their lost symptoms, reactions that may emerge as the clients begin to overcome their eating disorders (Zerbe, 2008).

While clinicians and researchers seek more answers about eating disorders, clients themselves have begun to take an active role in the identification and treatment of the disorders. A number of patient-run organizations now provide information, education, and support through Web sites, national telephone hot lines, schools, professional referrals, newsletters, workshops, and conferences (Musiat & Schmidt, 2010; Sinton & Taylor, 2010).

**SUMMING UP**

- **EATING DISORDERS** Rates of eating disorders have increased dramatically as thinness has become a national obsession. Two leading disorders in this category, anorexia nervosa and bulimia nervosa, share many similarities, as well as key differences. A third eating disorder, binge-eating disorder, also seems to be on the rise. p. 350

- **ANOREXIA NERVOSA** People with anorexia nervosa pursue extreme thinness and lose dangerous amounts of weight. They may follow a pattern of restricting-type anorexia nervosa or binge-eating/purging-type anorexia nervosa. The central features of anorexia nervosa are a drive for thinness, intense fear of weight gain, and disturbed body perception and other cognitive disturbances. People with this disorder develop various medical problems, particularly amenorrhea.

  Ninety to 95 percent of all cases of anorexia nervosa occur among females. Typically the disorder begins after a person who is slightly overweight or of normal weight has been on a diet. pp. 350–352

- **BULIMIA NERVOSA** People with bulimia nervosa go on frequent eating binges and then force themselves to vomit or perform other inappropriate compensatory behaviors. The binges are often in response to increasing tension and are followed by feelings of guilt and self-blame.

  Compensatory behavior is at first reinforced by the temporary relief from uncomfortable feelings of fullness or the reduction of feelings of anxiety, self-disgust, and loss of control attached to bingeing. Over time, however, sufferers generally feel disgusted with themselves, depressed, and guilty.

  People with bulimia nervosa may have mood swings or have difficulty controlling their impulses. Some display a personality disorder. Around half are amenorrheic, a number develop dental problems, and some develop a potassium deficiency. pp. 353–358

- **BINGE-EATING DISORDER** People with binge-eating disorder have frequent binge eating episodes but do not display inappropriate compensatory behaviors. Although most overweight people do not have binge-eating disorder, two-thirds of those with binge-eating disorder become overweight. Between 2 and 7 percent of the population have binge-eating disorder. Unlike anorexia nervosa and bulimia nervosa, this disorder is more evenly distributed among males and females and people of different races. p. 358

- **EXPLANATIONS FOR EATING DISORDERS** Most theorists now use a multidimensional risk perspective to explain eating disorders and to identify several key contributing factors. Principal among these are ego deficiencies; cognitive factors; depression; biological factors such as activity of the hypothalamus, biochemical activity, and the body’s weight set point; society’s emphasis on thinness and bias against obesity; family environment; racial and ethnic differences; and gender differences. pp. 358–369
TREATMENTS FOR EATING DISORDERS The first step in treating anorexia nervosa is to increase calorie intake and quickly restore the person’s weight, using a strategy such as supportive nursing care. The second step is to deal with the underlying psychological and family problems, often using a combination of education, cognitive-behavioral approaches, and family therapy. As many as 90 percent of people who are successfully treated for anorexia nervosa continue to show full or partial improvements years later. However, some of them relapse along the way, many continue to worry about their weight and appearance, and half continue to have some emotional problems. Most menstruate again when they regain weight.

Treatments for bulimia nervosa focus first on stopping the binge-purge pattern and then on addressing the underlying causes of the disorder. Often several treatment strategies are combined, including education, psychotherapy (particularly cognitive-behavioral therapy), and antidepressant medications. As many as 75 percent of those who receive treatment eventually improve either fully or partially. While relapse can be a problem and may be precipitated by a new stress, treatment leads to lasting improvements in psychological and social functioning for many people. Similar treatments are used to help people with binge-eating disorder. These individuals, however, may also require interventions to address their excessive weight. pp. 369–377
Substance Use and Addictive Disorders

“I am Duncan. I am an alcoholic.” The audience settled deeper into their chairs at these familiar words. Another chronicle of death and rebirth would shortly begin [at] Alcoholics Anonymous.

“I must have been just past my 15th birthday when I had that first drink that everybody talks about. And like so many of them . . . it was like a miracle. With a little beer in my gut, the world was transformed. I wasn’t a weakling anymore, I could lick almost anybody on the block. And girls? Well, you can imagine how a couple of beers made me feel like I could have any girl I wanted . . .

“Though it’s obvious to me now that my drinking even then, in high school, and after I got to college, was a problem, I didn’t think so at the time. After all, everybody was drinking and getting drunk and acting stupid, and I didn’t really think I was different . . . I guess the fact that I hadn’t really had any blackouts and that I could go for days without having to drink reassured me that things hadn’t gotten out of control. And that’s the way it went, until I found myself drinking even more—and more often—and suffering more from my drinking, along about my third year of college . . . “My roommate, a friend from high school, started bugging me about my drinking. It wasn’t even that I’d have to sleep it off the whole next day and miss class, it was that he had begun to hear other friends talking about me, about the fool I’d made of myself at parties. He saw how shaky I was the morning after, and he saw how different I was when I’d been drinking a lot—almost out of my head was the way he put it. And he could count the bottles that I’d leave around the room, and he knew what the drinking and carousing was doing to my grades . . . [P]artly because I really cared about my roommate and didn’t want to lose him as a friend, I did cut down on my drinking by half or more. I only drank on weekends—and then only at night . . . And that got me through the rest of college and, actually, through law school as well . . .

“Shortly after getting my law degree, I married my first wife, and . . . for the first time since I started, my drinking was no problem at all. I would go for weeks at a time without touching a drop . . .

“My marriage started to go bad after our second son, our third child, was born. I was very much career- and success-oriented, and I had little time to spend at home with my family. . . . My traveling had increased a lot, there were stimulating people on those trips, and, let’s face it, there were some pretty exciting women available, too. So home got to be little else but a nagging, boring wife and children I wasn’t very interested in. My drinking had gotten bad again, too, with being on the road so much, having to do a lot of entertaining at lunch when I wasn’t away, and trying to soften the hassles at home. I guess I was putting down close to a gallon of very good scotch a week, with one thing or another.

“And as that went on, the drinking began to affect both my marriage and my career. With enough booze in me and under the pressures of guilt over my failure to carry out my responsibilities to my wife and children, I sometimes got kind of rough physically with them. I would break furniture, throw things around, then rush out and drive off in the car. I had a couple of wrecks, lost my license for two years because of one of them. Worst of all was when I tried to stop. By then I was totally hooked, so every time I tried to stop drinking, I’d experience withdrawal in all its horrors . . . with the vomiting and the ‘shakes’ and being unable to sit still or to lie down. And that would go on for days at a time . . .

“Then, about four years ago, with my life in ruins, my wife given up on me and the kids with her, out of a job, and way down on my luck, [Alcoholics Anonymous] and I found each other . . . I’ve been dry now for a little over two years, and with luck and support, I may stay sober . . .”

(Spitzer et al., 1983, pp. 87–89)
Human beings enjoy a remarkable variety of foods and drinks. Every substance on earth probably has been tried by someone, somewhere, at some time. We also have discovered substances that have interesting effects—both medical and pleasurable—on our brains and the rest of our bodies. We may swallow an aspirin to quiet a headache, an antibiotic to fight an infection, or a tranquilizer to calm us down. We may drink coffee to get going in the morning or wine to relax with friends. We may smoke cigarettes to soothe our nerves. However, many of the substances we consume can harm us or disrupt our behavior or mood. The misuse of such substances has become one of society’s biggest problems; it has been estimated that the cost of substance misuse is more than $600 billion each year in the United States alone (Johnston et al., 2014).

Not only are numerous substances available in our society, new ones are introduced almost every day. Some are harvested from nature, others derived from natural substances, and still others produced in the laboratory. Some, such as antianxiety drugs, require a physician’s prescription for legal use. Others, such as alcohol and nicotine, are legally available to adults. Still others, such as heroin, are illegal under all circumstances. In 1962, only 4 million people in the United States had ever used marijuana, cocaine, heroin, or another illegal substance; today the number has climbed to more than 100 million (NSDUH, 2013). In fact, 24 million people have used illegal substances within the past month. Almost 24 percent of all high school seniors have used an illegal drug within the past month (Johnston et al., 2014).

A drug is defined as any substance other than food that affects our bodies or minds. It need not be a medicine or be illegal. The term “substance” is now frequently used in place of “drug,” in part because many people fail to see that such substances as alcohol, tobacco, and caffeine are drugs, too. When a person ingests a substance—whether it be alcohol, cocaine, marijuana, or some form of medication—trillions of powerful molecules surge through the bloodstream and into the brain. Once there, the molecules set off a series of biochemical events that disturb the normal operation of the brain and body. Not surprisingly, then, substance misuse may lead to various kinds of abnormal functioning.

Substances may cause temporary changes in behavior, emotion, or thought; this cluster of changes is called **substance intoxication** in DSM-5. As Duncan found out, for example, an excessive amount of alcohol may lead to **alcohol intoxication**, a temporary state of poor judgment, mood changes, irritability, slurred speech, and poor coordination. Similarly, drugs such as LSD may produce **hallucinogen intoxication**, sometimes called **hallucinosis**, which consists largely of perceptual distortions and hallucinations.

Some substances can also lead to long-term problems. People who regularly ingest them may develop **substance use disorders**, patterns of maladaptive behaviors and reactions brought about by the repeated use of substances (Higgins et al., 2014; APA, 2013). People with a substance use disorder may come to crave a particular substance and rely on it excessively, resulting in damage to their family and social relationships, poor functioning at work, and/or danger to themselves or others (see Table 12–1). In many cases, people with such a disorder also become physically dependent on the substance, developing a **tolerance** for it and experiencing **withdrawal** reactions. When people develop **tolerance**, they need increasing doses of the substance to produce the desired

### Table 12–1

**Dx Checklist**

**Substance Use Disorder**

1. Individual displays a maladaptive pattern of substance use leading to significant impairment or distress.

2. Presence of at least 2 of the following symptoms within a 1-year period:
   - Substance is often taken in larger amounts or over a longer period than intended.
   - Unsuccessful efforts or persistent desire to reduce or control substance use.
   - Much time spent trying to obtain, use, or recover from the effects of substance.
   - Failure to fulfill major role obligations at work, school, or home as a result of repeated substance use.
   - Continued use of substance despite persistent social or interpersonal problems caused by it.
   - Cessation or reduction of important social, occupational, or recreational activities because of substance use.
   - Continuing to use substance in situations where use poses physical risks.
   - Continuing to use substance despite awareness that it is causing or worsening a physical or psychological problem.
   - Craving for substance.
   - Tolerance effects.
   - Withdrawal reactions.

(Information from: APA, 2013)
Withdrawal reactions consist of unpleasant and sometimes dangerous symptoms—cramps, anxiety attacks, sweating, nausea—that occur when the person suddenly stops taking or cuts back on the substance. Duncan, who described his problems to fellow members at an Alcoholics Anonymous meeting, was caught in a form of substance use disorder called alcohol use disorder. When he was a college student and later a lawyer, alcohol damaged his family, social, academic, and work life. He also built up a tolerance for alcohol over time and had withdrawal symptoms such as vomiting and shaking when he tried to stop using it.

In any given year, 8.9 percent of all teens and adults in the United States, over 23 million people, have a substance use disorder (NSDUH, 2013). American Indians have the highest rate of substance use disorders in the United States (21.8 percent), while Asian Americans have the lowest (3.2 percent). White Americans, Hispanic Americans, and African Americans have rates close to 9 percent (NSDUH, 2013) (see Figure 12-1). Only 11 percent (around 2.5 million people) of all those with substance use disorders receive treatment from a mental health professional (Belendiuk & Riggs, 2014; NSDUH, 2013).

The substances people misuse fall into several categories: depressants, stimulants, hallucinogens, and cannabis. In this chapter you will read about some of the most problematic substances and the abnormal patterns they may produce. In addition, at the end of the chapter, you’ll read about gambling disorder, a problem that DSM-5 lists as an additional addictive disorder. By listing this behavioral pattern alongside the substance use disorders, DSM-5 is suggesting that this problem has addictive-like symptoms and causes that share more than a passing similarity to those at work in substance use disorders.

**Depressants**

Depressants slow the activity of the central nervous system. They reduce tension and inhibitions and may interfere with a person’s judgment, motor activity, and concentration. The three most widely used groups of depressants are alcohol, sedative-hypnotic drugs, and opioids.

**Alcohol**

The World Health Organization estimates that 2 billion people worldwide consume alcohol. In the United States more than half of all residents at least from time to time drink beverages that contain alcohol (NSDUH, 2013). Purchases of beer, wine, and liquor amount to tens of billions of dollars each year in the United States alone.

When people consume five or more drinks on a single occasion, it is called a binge drinking episode. Twenty-three percent of people in the United States over the age of 11, most of them male, binge drink each month (NSDUH, 2013). Around 6.5 percent of people over 11 years of age binge drink at least five times each month (NSDUH, 2013). They are considered heavy drinkers. Among heavy drinkers, males outnumber females by at least 3 to 2.

All alcoholic beverages contain ethyl alcohol, a chemical that is quickly absorbed into the blood through the lining of the stomach and the intestine. The ethyl alcohol immediately begins to take effect as it is carried in the bloodstream to the central nervous system (the brain and spinal cord), where it...
acts to depress, or slow, functioning by binding to various neurons. One important group of neurons to which ethyl alcohol binds are those that normally receive the neurotransmitter GABA. As you saw in Chapter 5, GABA carries an inhibitory message—a message to stop firing—when it is received at certain neurons. When alcohol binds to receptors on those neurons, it apparently helps GABA to shut down the neurons, thus helping to relax the drinker (Filip et al., 2014; Nace, 2011, 2005).

At first ethyl alcohol depresses the areas of the brain that control judgment and inhibition; people become looser, more talkative, and often more friendly. As their inner control breaks down, they may feel relaxed, confident, and happy. When more alcohol is absorbed, it slows down additional areas in the central nervous system, leaving the drinkers less able to make sound judgments, their speech less careful and less coherent, and their memory weaker. Many people become highly emotional and perhaps loud and aggressive.

Motor difficulties increase as a person continues drinking, and reaction times slow. People may be unsteady when they stand or walk and clumsy in performing even simple activities. They may drop things, bump into doors and furniture, and misjudge distances. Their vision becomes blurred, particularly their peripheral, or side, vision, and they have trouble hearing. As a result, people who have drunk too much alcohol may have great difficulty driving or solving simple problems.

The extent of the effect of ethyl alcohol is determined by its concentration, or proportion, in the blood. Thus a given amount of alcohol has less effect on a large person than on a small one (see Table 12-2). Gender also affects the concentration of alcohol in the blood. Women have less of the stomach enzyme alcohol dehydrogenase,
which breaks down alcohol in the stomach before it enters the blood. So women become more intoxicated than men on equal doses of alcohol, and women may be at greater risk for physical and psychological damage from alcohol than men who drink similar quantities of alcohol (Hart & Ksir, 2014).

Levels of impairment are closely related to the concentration of ethyl alcohol in the blood. When the alcohol concentration reaches 0.06 percent of the blood volume, a person usually feels relaxed and comfortable. By the time it reaches 0.09 percent, however, the drinker crosses the line into intoxication. If the level goes as high as 0.55 percent, the drinker will likely die. Most people lose consciousness before they can drink enough to reach this level; nevertheless, more than 1,000 people in the United States die each year from too high a blood alcohol level (Hart & Ksir, 2014).

The effects of alcohol subside only when the alcohol concentration in the blood declines. Most of the alcohol is broken down, or metabolized, by the liver into carbon dioxide and water, which can be exhaled and excreted. The average rate of this metabolism is 25 percent of an ounce per hour, but different people’s livers work at different speeds; thus rates of “sobering up” vary. Despite popular belief, only time and metabolism can make a person sober. Drinking black coffee, splashing cold water on one’s face, or “pulling oneself together” cannot hurry the process.

Alcohol Use Disorder Though legal, alcohol is actually one of the most dangerous of recreational drugs, and its reach extends across the life span. In fact, around 28 percent of middle school students admit to some alcohol use, while 39 percent of high school seniors drink alcohol each month (most to the point of intoxication) and 2.2 percent report drinking every day (Johnston et al., 2014). Alcohol misuse is also a major problem on college campuses (see PsychWatch on the next page).

Surveys indicate that over a 1-year period, 6.8 percent of all adults in the United States display alcohol use disorder, known in popular terms as alcoholism (NSDUH, 2013). Men with this disorder outnumber women by at least 2 to 1. Many teenagers also experience the disorder (Johnston et al., 2014).

The current prevalence of alcoholism is around 7.6 percent for white Americans, 5.1 percent for Hispanic Americans, and 4.5 percent for African Americans (NSDUH, 2013). American Indians, particularly men, tend to display a higher rate of alcohol use disorder than any of these groups. Overall, 8.5 percent of them experience the disorder, although specific prevalence rates differ widely across the various American Indian reservation communities. Generally, Asians in the United States and elsewhere have a lower rate of alcoholism (1.7 percent) than do people from other cultures. As many as half of these individuals have a deficiency of alcohol dehydrogenase, the chemical responsible for breaking down alcohol, so they react quite negatively to even a modest intake of alcohol. Such reactions in turn help prevent extended use (Tsuang & Pi, 2011).

**If alcohol is highly addictive and capable of causing so many psychological, physical, social, and personal problems, why does it remain legal in most countries?**

**If alcohol is highly addictive and capable of causing so many psychological, physical, social, and personal problems, why does it remain legal in most countries?**

**Students**

**Student Athletes and Alcohol**

- College athletes (both male and female) are more likely to drink, drink heavily, and binge drink than college students who are not athletes (Hildebrand et al., 2001; Nelson & Wechsler, 2001).

- In one survey, one-third of student athletes reported missing classes throughout the school year because of alcohol use (Perkins, 2002).

**Substance misuse and sports fans**

A problem that has received growing attention in recent years is excessive drinking by fans at sports events. While two soccer players were jumping for a high ball at this 2002 playoff game in Athens, Greece, fans—many of them intoxicated—ripped out plastic seats, threw flares on the field, and hurled coins and rocks at the players.

**Between the Lines**

**Student Athletes and Alcohol**

- College athletes (both male and female) are more likely to drink, drink heavily, and binge drink than college students who are not athletes (Hildebrand et al., 2001; Nelson & Wechsler, 2001).

- In one survey, one-third of student athletes reported missing classes throughout the school year because of alcohol use (Perkins, 2002).
frequent arguments with family members or friends, miss work repeatedly, and even lose their jobs. MRI scans of chronic heavy drinkers have revealed damage in various regions of their brains and, correspondingly, impairments in their memory, speed of thinking, attention skills, and balance (Sifferlin, 2014; Hernandez-Avila & Kranzler, 2011).

Individually, people’s patterns of alcoholism vary. Some drink large amounts of alcohol every day and keep drinking until intoxicated. Others go on periodic binges of heavy drinking that can last weeks or months. They may remain intoxicated for
days and later be unable to remember anything about the period. Still others may limit their excessive drinking to weekends, evenings, or both.

**TOLERANCE AND WITHDRAWAL** For many people, alcohol use disorder includes the symptoms of tolerance and withdrawal reactions (McCraday, 2014). As their bodies build up a tolerance for alcohol, they need to drink ever larger amounts to feel its effects. In addition, they have withdrawal symptoms when they stop drinking. Within hours their hands, tongue, and eyelids begin to shake; they feel weak and nauseated; they sweat and vomit; their heart beats rapidly; and their blood pressure rises. They may also become anxious, depressed, unable to sleep, or irritable (APA, 2013).

A small percentage of people with alcohol use disorder go through a particularly dramatic withdrawal reaction called **delirium tremens** ("the DTs"). It consists of terrifying visual hallucinations that begin within three days after they stop or reduce their drinking. Some people see small, frightening animals chasing or crawling on them or objects dancing about in front of their eyes. Mark Twain gave a classic picture of delirium tremens in Huckleberry Finn’s description of his father:

> I don’t know how long I was asleep, but . . . there was an awful scream and I was up. There was Pap looking wild, and skipping around every which way and yelling about snakes. He said they was crawling up on his legs; and then he would give a jump and scream, and say one had bit him on the cheek—but I couldn’t see no snakes. He started and run round . . . hollering “Take him off! he’s biting me on the neck!” I never see a man look so wild in the eyes. Pretty soon he . . . fell down panting; then he rolled over . . . kicking things every which way, and striking and grabbing at the air with his hands, and screaming . . . there was devils a-hold of him. He wore out by and by. . . . He says . . . “Tramp-tramp-tramp: that’s the dead; tramp-tramp-tramp; they’re coming after me; but I won’t go. Oh, they’re here; don’t touch me. . . . They’re cold; let go. . . .” Then he went down on all fours and crawled off, begging them to let him alone. . . .

*(Twain, 1885)*

Like most other alcohol withdrawal symptoms, the DTs usually run their course in 2 to 3 days. However, people who have severe withdrawal reactions such as this may also have seizures, lose consciousness, suffer a stroke, or even die. Today certain medical procedures can help prevent or reduce such extreme reactions.

**What Are the Personal and Social Impacts of Alcoholism?**

Alcoholism destroys millions of families, social relationships, and careers (Hernandez-Avila & Kranzler, 2011) (see MindTech on the next page). Medical treatment, lost productivity, and losses due to deaths from alcoholism cost society many billions of dollars annually. The disorder also plays a role in more than one-third of all suicides, homicides, assaults, rapes, and accidental deaths, including 30 percent of all fatal automobile accidents in the United States (Gifford et al., 2010). Altogether, intoxicated drivers are responsible for 12,000 deaths each year. More than 11 percent of all adults have driven while intoxicated at least once in the past year (NSDUH, 2013). Although this is a frightening number, it represents a significant drop since 2002 when 14 percent of adults had driven in an intoxicated state.

Alcoholism has serious effects on the 30 million children of people with this disorder. Home life for these children is likely to include much conflict.
Binge drinking and other risky alcohol-related behaviors have long been associated with peer pressure, both overt and subtle. But in the past few years, a popular new “game”—made possible by the Internet and social media—has taken such risky behaviors and the impact of peer pressure to new heights.

In early 2013, an online drinking game called Neknominate (or Neknomination), believed to have originated in Australia, emerged on Internet sites like YouTube and Facebook (Wilkinson and Soares, 2014). In this game, a person records a video of him or herself drinking an entire bottle of hard liquor (known in Australia as “necking”) and then challenges (“nominates”) a friend by name to post his or her own drinking video, one that will top the level and danger of the initial drinking act, and to then pass the challenge on to another person (James, 2014). Typically, challengers tell their nominees that they will be exposed as “losers” or “weak” if they fail to meet the challenge.

In most cases, the drink being consumed in the videos has an unusually high alcohol content, to make the “achievement” all the more “impressive.” Some of the videos also involve people exhibiting other dangerous or reckless behavior along with the drinking, such as driving while drinking, stripping in public, shoplifting, or consuming motor oil or even small animals both alive and dead (Wilkinson and Soares, 2014).

Given the escalating nature of the game, you may not be surprised that Neknominate was associated with a number of deaths within a very short period after its emergence, as it spread to Great Britain, Ireland, Canada, the United States, and other parts of the world (James, 2014). In February 2014, for example, five unrelated men, three in England and two in Ireland, died while making videos of themselves completing Neknominate challenges.

A public outcry to these deaths and to the very practice of Neknominate has emerged, with politicians, doctors, and others calling on Facebook and YouTube to ban discussions or presentations of the game. Facebook, however, has declined to ban discussions or postings associated with it, stating that its policy is only to ban content that is directly harmful, not to censor content that discusses potentially dangerous or offensive behavior (Wilkinson and Soares, 2014). Perhaps because of its negative publicity, the practice and uproar surrounding Neknominate has begun to die down a bit—while many Neknominate players have moved on to another high-risk Internet craze, Punch4Punch, in which people video themselves punching each other until one gives up.
liver that people may develop an irreversible condition called cirrhosis, in which the liver becomes scarred and dysfunctional. Cirrhosis accounts for more than 32,000 deaths each year (CDC, 2013). Alcohol use disorder may also damage the heart and lower the immune system’s ability to fight off cancer, bacterial infections, and AIDS.

Long-term excessive drinking also causes major nutritional problems. Alcohol makes people feel full and lowers their desire for food, yet it has no nutritional value. As a result, chronic drinkers become malnourished, weak, and prone to disease. Their vitamin and mineral deficiencies may also cause problems. An alcohol-related deficiency of vitamin B (thiamine), for example, may lead to Korsakoff’s syndrome, a disease marked by extreme confusion, memory loss, and other neurological symptoms (Hernandez-Avila & Kranzler, 2011; Nace, 2011, 2005). People with Korsakoff’s syndrome cannot remember the past or learn new information and may make up for their memory losses by confabulating—reciting made-up events to fill in the gaps.

Women who drink during pregnancy place their fetuses at risk (Bakoyiannis et al, 2014; Hart & Ksir, 2014; Gifford et al., 2010). Excessive alcohol use during pregnancy may cause a baby to be born with fetal alcohol syndrome, a pattern of abnormalities that can include intellectual disability disorder, hyperactivity, head and face deformities, heart defects, and slow growth. It has been estimated that in the overall population, around 1 of every 1,000 babies is born with this syndrome. The rate may increase to as many as 29 of every 1,000 babies of women who are problem drinkers. If all alcohol-related birth defects (known as fetal alcohol spectrum disorder) are counted, the rate becomes 80 to 200 such births per 1,000 heavy-drinking women. In addition, heavy drinking early in pregnancy often leads to a miscarriage. According to surveys, 8.5 percent of pregnant American women have drunk alcohol during the past month and 2.7 percent of pregnant women have had binge drinking episodes (NSDUH, 2013).

**Sedative-Hypnotic Drugs**

Sedative-hypnotic drugs, also called anxiolytic (meaning “anxiety-reducing”) drugs, produce feelings of relaxation and drowsiness. At low dosages, the drugs have a calming or sedative effect. At higher dosages, they are sleep inducers, or hypnotics. The sedative-hypnotic drugs include barbiturates and benzodiazepines.

**Barbiturates** First discovered in Germany more than 100 years ago, barbiturates were widely prescribed in the first half of the twentieth century to fight anxiety and to help people sleep. Although still prescribed by some physicians, these drugs have been largely replaced by benzodiazepines, which are generally safer drugs. Barbiturates can cause many problems, not the least of which is misuse. Several thousand deaths a year are caused by accidental or suicidal overdoses.

Barbiturates are usually taken in pill or capsule form. In low doses they reduce a person's level of excitement in the same way that alcohol does, by attaching to receptors on the neurons that receive the inhibitory neurotransmitter GABA and by helping GABA operate at those neurons (Filip et al., 2014; Hart & Ksir, 2014). People can become intoxicated from large doses of barbiturates, just as they do from alcohol. And, like alcohol, barbiturates are broken down in the liver. At too high a level, the drugs can halt breathing, lower blood pressure, and lead to coma and death.

Repeated use of barbiturates can quickly result in sedative-hypnotic use disorder. Users may spend much of the day intoxicated, irritable, and unable to do their daily tasks. Long-term use can lead to tolerance and physical dependence, and the risk of overdose increases with continued use.

Dealing with DUI

To publicize, prevent, and punish intoxicated driving, Phoenix, Arizona, has created DUI chain gangs for all to see. Members of these chain gangs, men convicted of drunken driving, don bright pink shirts and perform tasks such as burying people who have died of alcohol use disorder.
work. Some organize their lives around the drug and need increasing amounts of it to calm down or fall asleep. A major danger of barbiturate tolerance is that the lethal dose of the drug remains the same even while the body is building up a tolerance for its sedating effects. Once the prescribed dose stops reducing anxiety or inducing sleep, the user is all too likely to increase it without medical supervision and eventually may ingest a dose that proves fatal. The person may also have withdrawal symptoms such as nausea, anxiety, and sleep problems. Barbiturate withdrawal is particularly dangerous because it can cause convulsions.

Benzodiazepines Chapter 5 described benzodiazepines, the antianxiety drugs developed in the 1950s, as the most popular sedative-hypnotic drugs available. Xanax, Ativan, and Valium are just three of the dozens of these compounds in clinical use. Altogether, 130 million prescriptions are written annually for benzodiazepines (Grohol, 2012). Like alcohol and barbiturates, they calm people by binding to receptors on the neurons that receive GABA and by increasing GABA’s activity at those neurons (Filip et al., 2014; Dupont & Dupont, 2011, 2005). These drugs, however, relieve anxiety without making people as drowsy as other kinds of sedative-hypnotics. They are also less likely to slow a person’s breathing, so they are less likely to cause death in the event of an overdose.

When benzodiazepines were first discovered, they seemed so safe and effective that physicians prescribed them generously, and their use spread. Eventually it became clear that in high enough doses the drugs can cause intoxication and lead to an addictive pattern of use. Over a 1-year period, 0.03 percent of all adults in the United States have either barbiturate or benzodiazepine use disorder, and as many as 1 percent have one of these disorders over the course of their lives (NSDUH, 2013; Berg, 2010).

Opioids Opioids include opium—taken from the sap of the opium poppy—and the drugs derived from it, such as heroin, morphine, and codeine. Opium itself has been in use for thousands of years. In the past it was used widely in the treatment of medical disorders because of its ability to reduce both physical and emotional pain. Eventually, however, physicians discovered that the drug was addictive.

In 1804 a new substance, morphine, was derived from opium. Named after Morpheus, the Greek god of sleep, this drug relieved pain even better than opium did and initially was considered safe. However, wide use of the drug eventually revealed that it, too, could lead to addiction. So many wounded soldiers in the United States received morphine injections during the Civil War that morphine addiction became known as “soldiers’ disease.”

In 1898, morphine was converted into yet another new pain reliever, heroin. For several years heroin was viewed as a wonder drug and was used as a cough medicine and for other medical purposes. Eventually, however, physicians learned that heroin is even more addictive than the other opioids. By 1917, the U.S. Congress had concluded that all drugs derived from opium were addictive, and it passed a law making opioids illegal except for medical purposes.

Still other drugs have been derived from opium, and synthetic (laboratory-blended) opioids such as methadone have also been developed (Dilts & Dilts, 2011, 2005). All these opioid drugs—natural and synthetic—are known collectively as narcotics. Each drug has a different strength, speed of action, and tolerance level. Morphine, codeine, and oxycodone (the key ingredient in OxyContin and Percocet) are medical narcotics usually prescribed to relieve pain. In contrast to these narcotics, heroin is illegal in the United States in all circumstances.
Most narcotics are smoked, inhaled, snorted, injected by needle just beneath the skin ("skin popped"), or injected directly into the bloodstream ("mainlined"). Injection seems to be the most common method of narcotic use, although the other techniques have been used increasingly in recent years (NSDUH, 2013). An injection quickly brings on a rush—a spasm of warmth and ecstasy that is sometimes compared with orgasm. The brief spasm is followed by several hours of a pleasant feeling called a high or nod. During a high, the drug user feels relaxed, happy, and unconcerned about food, sex, or other bodily needs.

Opioids create these effects by depressing the central nervous system, particularly the centers that help control emotion. The drugs attach to brain receptor sites that ordinarily receive endorphins—neurotransmitters that help relieve pain and reduce emotional tension (Hart & Ksir, 2014; Epstein, Phillips, & Preston, 2011). When neurons at these receptor sites receive opioids, they produce pleasurable and calming feelings just as they would do if they were receiving endorphins. In addition to reducing pain and tension, opioids cause nausea, narrowing of the pupils ("pinpoint pupils"), and constipation—bodily reactions that can also be brought about by releases of endorphins in the brain.

**Opioid Use Disorder** Heroin use exemplifies the kinds of problems posed by opioids. After taking heroin repeatedly for just a few weeks, users may develop opioid use disorder. Their use of heroin interferes significantly with their social and occupational functioning, and their lives center around the drug. They may also build a tolerance for heroin and experience a withdrawal reaction when they stop taking it (Hart & Ksir, 2014; Ahmed, 2011). At first the withdrawal symptoms are anxiety, restlessness, sweating, and rapid breathing; later they include severe twitching, aches, fever, vomiting, diarrhea, loss of appetite, high blood pressure, and weight loss of up to 15 pounds (due to loss of bodily fluids). These symptoms usually peak by the third day, gradually subside, and disappear by the eighth day. A person in heroin withdrawal can either wait out the symptoms or end withdrawal by taking the drug again.

Such people soon need heroin just to avoid going into withdrawal, and they must continually increase their doses in order to achieve even that relief. The temporary high becomes less intense and less important. Heroin users may spend much of their time planning their next dose, in many cases turning to criminal activities, such as theft and prostitution, to support the expensive “habit” (Cadet, Bisagno, & Milroy, 2014; Koetzle, 2014).

Surveys suggest that more than 1 percent of adults in the United States display an opioid use disorder within a given year (NSDUH, 2013). Most of these persons (80 percent) are addicted to the pain-reliever opioids such as oxycodone and morphine (see Figure 12-2). Around 20 percent of those with opioid use disorder (a half-million people) are addicted to heroin. The rate of opioid dependence dropped considerably during the 1980s, rose in the early 1990s, fell in the late 1990s, and now seems to be relatively high once again (NSDUH, 2013). The actual number of opioid-dependent people may be even higher, however, as many people are reluctant to admit an illegal activity.

**What Are the Dangers of Opioid Use?** Once again, heroin provides a good example of the dangers of opioid use. The most immediate danger of heroin use is an overdose, which closes down the respiratory center in
the brain, almost paralyzing breathing and in many cases causing death (Christensen, 2014). Death is particularly likely during sleep, when a person is unable to fight this effect by consciously working to breathe. People who resume heroin use after having avoided it for some time often make the fatal mistake of taking the same dose they had built up to before. Because their bodies have been without heroin for some time, however, they can no longer tolerate this high level. There has been a 50 percent increase in the number of deaths caused by heroin overdoses in the past decade (Gray, 2014). Each year approximately 2 percent of those addicted to heroin and other opioids die under the drug’s influence, usually from an overdose.

Heroin users run other risks as well. Drug dealers often mix heroin with a cheaper drug or even a deadly substance such as cyanide or battery acid. In addition, dirty needles and other unsterilized equipment spread infections such as AIDS, hepatitis C, and skin abscesses (Dilts & Dilts, 2011, 2005). In some areas of the United States, the HIV infection rate among active heroin users is reported to be as high as 60 percent.

Stimulants

Stimulants are substances that increase the activity of the central nervous system, resulting in increased blood pressure and heart rate, more alertness, and sped-up behavior and thinking. Among the most troublesome stimulants are cocaine and amphetamines, whose effects on people are very similar. When users report different effects, it is often because they have ingested different amounts of the drugs. Two other widely used and legal stimulants are caffeine and nicotine (see InfoCentral on page 394).

Cocaine

Cocaine—the central active ingredient of the coca plant, found in South America—is the most powerful natural stimulant now known (Acosta, Haller, & Schnoll, 2011, 2005). The drug was first separated from the plant in 1865. Native people of South America, however, have chewed the leaves of the plant since prehistoric times for the energy and alertness the drug offers. Processed cocaine (hydrochloride powder) is an odorless, white, fluffy powder. For recreational use, it is most often snorted so that it is absorbed through the mucous membrane of the nose. Some users prefer the more powerful effects of injecting cocaine intravenously or smoking it in a pipe or cigarette.
“It is cocaine,” he said, “a seven-per-cent solution. Would you care to try it?”

“No, indeed,” I answered brusquely. “My constitution has not got over the Afghan campaign yet. I cannot afford to throw any extra strain upon it.”

He smiled at my vehemence. “Perhaps you are right, Watson,” he said. “I suppose that its influence is physically a bad one. I find it, however, so transcendentally stimulating and clarifying to the mind that its secondary action is a matter of small moment.”

“But consider!” I said earnestly. “Count the cost! Your brain may, as you say, be roused and excited, but it is a pathological and morbid process which involves increased tissue-change and . . . a permanent weakness. You know, too, what a black reaction comes upon you. Surely, the game is hardly worth the candle.”

(Doyle, 1938, pp. 91–92)

For years people believed that cocaine posed few problems aside from intoxication and, on occasion, temporary psychosis (see Table 12-3). Like Sherlock Holmes, many felt that the benefits outweighed the costs. Only later did researchers come to appreciate its many dangers (Haile, 2012). Their insights came after society witnessed a dramatic surge in the drug’s popularity and in problems related to its use. In the early 1960s, an estimated 10,000 people in the United States had tried cocaine. Today 28 million people have tried it, and 1.6 million—most of them teenagers or young adults—are using it currently (NSDUH, 2013). In fact, 1.1 percent of all high school seniors have used cocaine within the past month and almost 2.6 percent have used it within the past year (Johnston et al., 2014).

Cocaine brings on a euphoric rush of well-being and confidence. Given a high enough dose, this rush can be almost orgasmic, like the one produced by heroin. At first cocaine stimulates the higher centers of the central nervous system, making users feel excited, energetic, talkative, and even euphoric. As more is taken, it stimulates other centers of the central nervous system, producing a faster pulse, higher blood pressure, faster and deeper breathing, and further arousal and wakefulness.

Cocaine apparently produces these effects largely by increasing supplies of the neurotransmitter dopamine at key neurons throughout the brain (Haile, 2012; Hart & Ksir, 2014; APA, 2013; Hart et al., 2010).

<table>
<thead>
<tr>
<th>Substance</th>
<th>Potential Intoxication</th>
<th>Addiction Potential</th>
<th>Risk of Organ Damage or Death</th>
<th>Risk of Severe Social or Economic Consequences</th>
<th>Risk of Severe or Long-Lasting Mental and Behavioral Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>High</td>
<td>Low to moderate</td>
</tr>
<tr>
<td>Sedative-hypnotics</td>
<td>Moderate</td>
<td>Moderate to high</td>
<td>Moderate to high Low</td>
<td>Moderate to high Low</td>
<td>Low</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Low to moderate</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>Stimulants (cocaine, amphetamines)</td>
<td>Moderate</td>
<td>Moderate to high</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Alcohol</td>
<td>High</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Cannabis</td>
<td>High</td>
<td>Low to moderate</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Mixed drugs</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

SMOKING, TOBACCO, AND NICOTINE

Around 27% percent of all Americans over the age of 11 regularly smoke tobacco—a total of 70 million people (NSDUH, 2013).

WHO SMOKES REGULARLY IN THE UNITED STATES?

Similar to 22% of the world population over 11 smoke regularly—a total of 1.1 billion people (WHO, 2014).

SMOKING AND HEALTH

<table>
<thead>
<tr>
<th>Category</th>
<th>Annual Deaths (U.S.)</th>
<th>Annual Deaths (Worldwide)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking-related deaths</td>
<td>438,000</td>
<td>5 million</td>
</tr>
<tr>
<td>by smoke-related deaths</td>
<td>479,000</td>
<td>42,000</td>
</tr>
</tbody>
</table>

WHY DO PEOPLE CONTINUE TO SMOKE?

Between 50% and 75% of smokers keep smoking because they are addicted to nicotine, the active substance in tobacco (WHO, 2014). Nicotine is a stimulant of the central nervous system that acts on the same neurotransmitters and reward centers in the brain as amphetamines and cocaine. It is as addictive as those drugs and heroin (Hart & Ksir, 2014). Smokers addicted to nicotine are said to have tobacco use disorder (APA, 2013).

QUITTING SMOKING

More and more smokers try to quit each year. One reason is that many studies have identified the severe health dangers smoking poses. Another is the outstanding job that health agencies have done spreading the word about these dangers. With the declining acceptability of smoking, a market for products and techniques to help people kick the habit has emerged.

Getting the Message

Teens who believe that smoking is harmful

<table>
<thead>
<tr>
<th>Year</th>
<th>% 12th Graders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>68.7%</td>
</tr>
<tr>
<td>2008</td>
<td>74.0%</td>
</tr>
<tr>
<td>2013</td>
<td>78.2%</td>
</tr>
</tbody>
</table>

Most Popular New Aid: e-Cigarettes

Smoking an e-cigarette, a battery-operated cigarette, is called vaping.

<table>
<thead>
<tr>
<th>Product</th>
<th>Nicotine Content</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Cigarette</td>
<td>10 mg</td>
<td>Heaters vaporizes nicotine and smoker exhales a cloud of vapor</td>
</tr>
<tr>
<td>e-Cigarette</td>
<td>0.34 mg</td>
<td>Smoke poses biggest danger, no actual burning, mildly addictive</td>
</tr>
</tbody>
</table>

Common Aids for Quitting

- **RAPID SMOKING**: Puffing frequently and rapidly until becoming ill.
- **NICOTINE GUM**: Releases nicotine when chewed.
- **NICOTINE PATCH**: Releases nicotine through the skin.
- **NICOTINE LOZENGES**: Dissolves in the mouth and releases nicotine.
- **NASAL SPRAY**: Delivers aerosol nicotine into the nostrils.
- **ANTIDEPRESSANTS (BUPROPION AND NORTRIPTYLIN)**: Reduce craving for nicotine.
- **SELF-HELP GROUPS**: Offer psychological support.
Kosten et al., 2008). Excessive amounts of dopamine travel to receiving neurons throughout the central nervous system and overstimulate them. Cocaine appears to also increase the activity of the neurotransmitters norepinephrine and serotonin in some areas of the brain (Hart & Ksir, 2014; Haile, 2012).

High doses of the drug produce cocaine intoxication, whose symptoms are poor muscle coordination, grandiosity, bad judgment, anger, aggression, compulsive behavior, anxiety, and confusion. Some people have hallucinations, delusions, or both, a condition called cocaine-induced psychosis.

A young man described how, after free-basing, he went to his closet to get his clothes, but his suit asked him, “What do you want?” Afraid, he walked toward the door, which told him, “Get back!” Retreating, he then heard the sofa say, “If you sit on me, I’ll kick your ass.” With a sense of impending doom, intense anxiety, and momentary panic, the young man ran to the hospital where he received help. (Allen, 1985, pp. 19–20)

As the stimulant effects of cocaine subside, the user goes through a depression-like letdown, popularly called crashing, a pattern that may also include headaches, dizziness, and fainting (Acosta et al., 2011, 2005). For occasional users, the aftereffects usually disappear within 24 hours, but they may last longer for people who have taken a particularly high dose. These people may sink into a stupor, deep sleep, or, in some cases, coma.

Ingesting Cocaine In the past, cocaine use and impact were limited by the drug’s high cost. Moreover, cocaine was usually snorted, a form of ingestion that has less powerful effects than either smoking or injection (Haile, 2012). Since 1984, however, the availability of newer, more powerful, and sometimes cheaper forms of cocaine has produced an enormous increase in the use of the drug. For example, many people now ingest cocaine by freebasing, a technique in which the pure cocaine basic alkaloid is chemically separated, or “freed,” from processed cocaine, vaporized by heat from a flame, and inhaled through a pipe.

Millions more people use crack, a powerful form of freebase cocaine that has been boiled down into crystalline balls. It is smoked with a special pipe and makes a crackling sound as it is inhaled (hence the name). Crack is sold in small quantities at a fairly low cost, which has resulted in crack epidemics among people who previously could not have afforded cocaine, primarily those in poor, urban areas (Acosta et al., 2011, 2005). Around 1.1 percent of high school seniors report having used crack within the past year, down from a peak of 2.7 percent in 1999 (Johnston et al., 2014).

What Are the Dangers of Cocaine? Aside from cocaine’s harmful effects on behavior, cognition, and emotion, the drug poses serious physical dangers (Paczynski & Gold, 2011). The growth in the use of the powerful forms of cocaine has caused the annual number of cocaine-related emergency room incidents in the United States to multiply more than 125 times since 1982, from around 4,000 cases to 505,000 (SAMHSA, 2013). Cocaine use has also been linked to many suicides (Petit et al., 2012).

The greatest danger of cocaine use is an overdose. Excessive doses have a strong effect on the respiratory center of the brain, at first stimulating it and then depressing it to the point where breathing may stop. Cocaine can also create major, even fatal, heart irregularities or brain seizures that bring breathing or heart functioning to a sudden stop (Acosta et al., 2011, 2005). In addition, pregnant women who...
use cocaine run the risk of having a miscarriage and of having children with predispositions to later drug use and with abnormalities in immune functioning, attention and learning, thyroid size, and dopamine and serotonin activity in the brain (Minnes et al., 2014; Hart & Ksir, 2014; Kosten et al., 2008).

**Amphetamines**

Amphetamines are stimulant drugs that are manufactured in the laboratory. Some common examples are amphetamine (Benzedrine), dextroamphetamine (Dexedrine), and methamphetamine (Methedrine). First produced in the 1930s to help treat asthma, amphetamines soon became popular among people trying to lose weight; athletes seeking an extra burst of energy; soldiers, truck drivers, and pilots trying to stay awake; and students studying for exams through the night (Haile, 2012). Physicians now know the drugs are far too dangerous to be used so casually, and they prescribe them much less freely.

Amphetamines are most often taken in pill or capsule form, although some people inject the drugs intravenously or smoke them for a quicker, more powerful effect. Like cocaine, amphetamines increase energy and alertness and reduce appetite when taken in small doses; produce a rush, intoxication, and psychosis in high doses; and cause an emotional letdown as they leave the body. Also like cocaine, amphetamines stimulate the central nervous system by increasing the release of the neurotransmitters dopamine, norepinephrine, and serotonin throughout the brain, although the actions of amphetamines differ somewhat from those of cocaine (Hart & Ksir, 2014; Haile, 2012).

One kind of amphetamine, methamphetamine (nicknamed *crank*), has surged in popularity in recent years and so warrants special focus. Almost 6 percent of all people over the age of 11 in the United States have used methamphetamine at least once. Around 0.2 percent use it currently (NSDUH, 2013). It is available in the form of crystals (also known by the street names *ice* and *crystal meth*), which users smoke.

Most of the nonmedical methamphetamine in the United States is made in small “stovetop laboratories,” which typically operate for a few days in a remote area and then move on to a new—safer—location (Hart & Ksir, 2014). Such laboratories have been around since the 1960s, but they have increased eightfold—in number, production, and in being confiscated by authorities—over the past decade. A major health concern is that the secret laboratories expel dangerous fumes and residue (Burgess, 2001).

Since 1989, when the media first began reporting about the dangers of smoking methamphetamine crystals, the rise in usage has been dramatic. Until recently, it had been much more prevalent in western parts of the United States, but its use has now spread east as well. Methamphetamine-linked emergency room visits are rising in hospitals throughout all parts of the country (SAMHSA, 2013).

Methamphetamine is about as likely to be used by women as men. Around 40 percent of current users are women (NSDUH, 2013). The drug is particularly popular today among biker gangs, rural Americans, and urban gay communities and has gained wide use as a “club drug,” the term for those drugs that regularly find their way to all night dance parties, or “raves” (Hart & Ksir, 2014; Hopfer, 2011).

Like other kinds of amphetamines, methamphetamine increases activity of the neurotransmitters dopamine, serotonin, and norepinephrine, producing increased arousal, attention, and related effects (Acosta et al., 2011, 2005; Dean & London, 2010). It can have serious negative effects on a user’s physical, mental, and social life. Of particular concern is that it damages nerve endings, a problem called neurotoxicity.
But users focus more on methamphetamine’s immediate positive impact, including perceptions by many that it makes them feel hypersexual and uninhibited (Washton & Zweben, 2008; Jefferson, 2005).

**Stimulant Use Disorder**

Regular use of either cocaine or amphetamines may lead to *stimulant use disorder*. The stimulant comes to dominate the person’s life, and the person may remain under the drug’s effects much of each day and function poorly in social relationships and at work. Regular stimulant use may also cause problems in short-term memory and attention (Lundqvist, 2010; Kubler et al., 2005). People may develop tolerance and withdrawal reactions to the drug—in order to gain the desired effects, they must take higher doses, and when they stop taking it, they may go through deep depression, fatigue, sleep problems, irritability, and anxiety (Barr et al., 2011; Hill & Weiss, 2011). These withdrawal symptoms can last for weeks or even months after drug use has ended. In a given year, 0.4 percent of all people over the age of 11 display stimulant use disorder that is centered on cocaine, and 0.2 percent display stimulant use disorder centered on amphetamines (NSDUH, 2013).

**Caffeine**

Caffeine is the world’s most widely used stimulant. Around 80 percent of the world’s population consumes it daily. Most of this caffeine is taken in the form of coffee (from the coffee bean); the rest is consumed in tea (from the tea leaf), cola (from the kola nut), so-called *energy drinks*, chocolate (from the cocoa bean), and numerous prescription and over-the-counter medications, such as Excedrin.

Around 99 percent of ingested caffeine is absorbed by the body and reaches its peak concentration within an hour. It acts as a stimulant of the central nervous system, again producing a release of the neurotransmitters dopamine, serotonin, and norepinephrine in the brain (Advokat et al., 2014; Cauli & Morelli, 2005). Thus it raises a person’s arousal and motor activity and reduces fatigue. It can also disrupt mood, fine motor movement, and reaction time and may interfere with sleep (Hart & Ksir, 2014; Juliano, Anderson, & Griffiths, 2011; Judelson et al., 2005). At high doses, it increases gastric acid secretions in the stomach and the rate of breathing.

More than two to three cups of brewed coffee (250 milligrams of caffeine) can produce caffeine intoxication, which may include such symptoms as restlessness, nervousness, anxiety, stomach disturbances, twitching, and a faster heart rate (Juliano et al., 2011; Paton & Beer, 2001). Doses larger than 10 grams of caffeine (about 100 cups of coffee) can cause grand mal seizures and fatal respiratory failure.

Many people who suddenly stop or cut back on their usual intake of caffeine—even those whose regular consumption is low (two and a half cups of coffee daily or seven cans of cola)—have withdrawal symptoms. One pioneering study had adult participants consume their usual caffeine-filled drinks and foods for 2 days, then abstain from all caffeine-containing foods for 2 days while taking placebo pills that they thought contained caffeine, and then abstain from such foods for 2 days while taking actual caffeine pills (Silverman et al., 1992). More participants had headaches (52 percent), depression (11 percent), anxiety (8 percent), and fatigue (8 percent) during the 2-day placebo period than during the caffeine periods. In addition, people reported using more unauthorized medications (13 percent) and they performed experimental tasks more slowly during the placebo period than during the caffeine periods.

Although DSM-5 acknowledges that many people go through caffeine intoxication and caffeine withdrawal, it does not go so far as to list *caffeine use disorder* as an official category (APA, 2013). Instead, it views this disorder as a condition that has received some support in clinical studies and that may warrant official...
classification in a future edition of the DSM, depending on the outcome of future studies. If added to the DSM, they key criteria for this disorder would be a 1-year pattern of problematic caffeine use, unsuccessful efforts to reduce caffeine use, awareness that one’s continued caffeine use is causing a repeated physical or psychological problem, withdrawal symptoms if one stops caffeine use, and significant impairment or distress.

Investigators often assess caffeine’s impact by measuring coffee consumption, yet coffee also contains other chemicals that may be dangerous to a person’s health. Although some early studies hinted at links between caffeine and cancer (particularly pancreatic cancer), the evidence is not conclusive (Hart & Ksir, 2014; Juliano et al., 2011). On the other hand, studies do suggest that there may be correlations between high doses of caffeine and heart rhythm irregularities (arrhythmias), high cholesterol levels, and risk of heart attacks (Hart & Ksir, 2014). And some, but not all, studies raise the possibility that very high doses of caffeine during pregnancy may increase the risk of miscarriage (Brent et al., 2011; Weng et al., 2008). As public awareness of these possible health risks has increased, caffeine consumption has declined and the consumption of decaffeinated drinks has increased over the past few decades. There are, however, indications that caffeine consumption may currently be on the rise once again.

**Hallucinogens, Cannabis, and Combinations of Substances**

Other kinds of substances may also cause problems for their users and for society. **Hallucinogens** produce delusions, hallucinations, and other sensory changes. **Cannabis** produces sensory changes, but it also has depressant and stimulant effects, and so it is considered apart from hallucinogens in DSM-5. And many people take combinations of substances.

**Hallucinogens**

**Hallucinogens** are substances that cause powerful changes in sensory perception, from strengthening a person’s normal perceptions to inducing illusions and hallucinations. They produce sensations so out of the ordinary that they are sometimes called “trips.” The trips may be exciting or frightening, depending on how a person’s mind interacts with the drugs. Also called *psychodelic drugs*, the hallucinogens include LSD, mescaline, psilocybin, and MDMA (Ecstasy) (see *PsychWatch* on the next page). Many of these substances come from plants or animals; others are produced in laboratories.

**LSD (lysergic acid diethylamide),** one of the most famous and most powerful hallucinogens, was derived by Swiss chemist Albert Hoffman in 1938 from a group of naturally occurring drugs called *ergot alkaloids*. During the 1960s, a decade of social rebellion and experimentation, millions of people turned to the drug as a way of expanding their experience. Within 2 hours of being swallowed, LSD brings on a state of *hallucinogen intoxication*, sometimes called *hallucinosis*, marked by a general
Club Drugs: X Marks the (Wrong) Spot

You probably know of the drug MDMA (3,4-methylenedioxymethamphetamine) by its common street name, Ecstasy. It is also known as X, Adam, hug, beans, and love drug. This laboratory-produced drug is technically a stimulant, similar to amphetamines, but it also produces hallucinogenic effects and so is often considered a hallucinogenic drug (Litjens et al., 2014; McDowell, 2011, 2005). MDMA was developed as far back as 1910, but only in the past 25 years has it gained life as a club drug. Today, in the United States alone, consumers collectively take hundreds of thousands of doses of MDMA weekly (Johnston et al., 2014). Altogether, 12 million Americans over the age of 11 have now tried MDMA at least once in their lifetime, 760,000 in the past year (NSDUH, 2013, 2010). Around 7 percent of all high school seniors have used it within the past year (Johnston et al., 2014).

What is Ecstasy’s allure? As a stimulant and hallucinogen, it helps to raise the mood of many partygoers and provides them with an energy boost that enables them to keep dancing and partying. It may also produce strong feelings of attachment and connectedness in users. However, it can be a dangerous drug, particularly when taken repeatedly.

What Are the Dangers of Using Ecstasy?

As MDMA has become more widely used, it has received more research scrutiny. As it turns out, the mood and energy lift produced by MDMA comes at a high price (Hart & Ksir, 2014; Parrott et al., 2014; Weaver & Schnoll, 2008; Wiegand et al., 2008). The problems that the drug may cause include the following:

- Immediate psychological problems such as confusion, depression, sleep difficulties, severe anxiety, and paranoid thinking. These symptoms may also continue for weeks after ingestion of MDMA.
- Significant impairment of memory and other cognitive skills.
- Physical symptoms such as muscle tension, nausea, blurred vision, faintness, and chills or sweating. MDMA also causes many people to clench and grind their teeth for hours at a time.
- Increases in heart rate and blood pressure, which place people with heart disease at special risk.
- Reduced sweat production. At a hot, crowded dance party, taking Ecstasy can even cause heat stroke, or hyperthermia. Users generally try to remedy this problem by drinking lots of water, but since the body cannot sweat under the drug’s influence, the excess fluid intake can result in an equally perilous condition known as hyponatremia, or “water intoxication.”
- Potential liver damage. This may happen when users take MDMA in combination with other drugs that are broken down by the same liver enzyme, such as the cheaper compound DXM (dextromethorphan), which is commonly mixed in with Ecstasy by dealers.

How Does MDMA Operate in the Brain?

MDMA works by causing the neurotransmitters serotonin and (to a lesser extent) dopamine to be released all at once throughout the brain, at first increasing and then depleting a person’s overall supply of the neurotransmitters. MDMA also interferes with the body’s ability to produce new supplies of serotonin. With repeated use, the brain eventually produces less and less serotonin (Lizarraga et al., 2014; McDowell, 2011, 2005; Baggot & Mendelson, 2001).

Ecstasy’s impact on these neurotransmitters accounts for its various psychological effects and associated problems (Lizarraga et al., 2014; Zakzanis et al., 2007; Malberg & Bonson, 2001). High levels of serotonin, such as those produced after one first ingests MDMA, create feelings of well-being, sociability, and even euphoria. Conversely, abnormally low serotonin levels are associated with depression and anxiety. This is why when people “come down” off a dose of Ecstasy, they often feel depressed and anxious. Moreover, because repeated use of Ecstasy leads to long-term serotonin deficits, the depression and anxiety may be long-lasting. Additionally, serotonin is linked to the ability to concentrate; thus repeatedly using Ecstasy may cause problems in memory and learning.

End of the Honeymoon?

The dangers of MDMA do not yet seem to outweigh its pleasures in the minds of many people. Although it is no longer used as much as it was in the early 2000s, MDMA seems to have regained considerable popularity in recent years, finding its way back to raves, dance clubs, and various college settings (Johnston et al., 2014; Palamar & Kamboukos, 2014). Clearly, despite the research results, the honeymoon for MDMA is not yet over.
strengthening of perceptions, particularly visual perceptions, along with psychological changes and physical symptoms. People may focus on small details—the pores of the skin, for example, or individual blades of grass. Colors may seem enhanced or take on a shade of purple. People may have illusions in which objects seem distorted and appear to move, breathe, or change shape. A person under the influence of LSD may also hallucinate—seeing people, objects, or forms that are not actually present.

Hallucinosis may also cause one to hear sounds more clearly, feel tingling or numbness in the limbs, or confuse the sensations of hot and cold. Some people have been badly burned after touching flames that felt cool to them under the influence of LSD. The drug may also cause different senses to cross, an effect called synesthesia. Colors, for example, may be “heard” or “felt.”

LSD can also induce strong emotions, from joy to anxiety or depression. The perception of time may slow dramatically. Long-forgotten thoughts and feelings may resurface. Physical symptoms can include sweating, palpitations, blurred vision, tremors, and poor coordination. All of these effects take place while the user is fully awake and alert, and they wear off in about 6 hours.

It seems that LSD produces these symptoms primarily by binding to some of the neurons that normally receive the neurotransmitter serotonin, changing the neurotransmitter’s activity at those sites (Advokat et al., 2014). These neurons ordinarily help the brain send visual information and control emotions (as you saw in Chapter 7); thus LSD’s activity there produces various visual and emotional symptoms.

More than 14 percent of all people in the United States have used LSD or another hallucinogen at some point in their lives. Around 0.4 percent, or 1.1 million people, are currently using them (NSDUH, 2013). Although people do not usually develop tolerance to LSD or have withdrawal symptoms when they stop taking it (NSDUH, 2013), the drug poses dangers for both one-time and long-term users. It is so powerful that any dose, no matter how small, is likely to produce enormous perceptual, emotional, and behavioral reactions. Sometimes the reactions are extremely unpleasant—a so-called bad trip (when LSD users injure themselves or others, for instance, usually they are in the midst of a bad trip). Witness, for example, this description of a young woman who took LSD during the 1960s when so many people thought of the drug as a problem-free mind expander, only to learn about its dark side through personal use:

A 21-year-old woman was admitted to the hospital along with her lover. He had had a number of LSD experiences and had convinced her to take it to make her less constrained sexually. About half an hour after ingestion of approximately 200 microgm., she noticed that the bricks in the wall began to go in and out and that light affected her strangely. She became frightened when she realized that she was unable to distinguish her body from the chair she was sitting on or from her lover’s body. Her fear became more marked after she thought that she would not get back into herself. At the time of admission she was hyperactive and laughed inappropriately. Her stream of talk was illogical and affect labile. Two days later, this reaction had ceased.

(Frosch, Robbins, & Stern, 1965)

Another danger is the long-term effect that LSD may have (Weaver & Schnoll, 2008; Halpern, 2003). Some users eventually develop psychosis or a mood or anxiety disorder. And a number have flashbacks—a recurrence of the sensory and emotional changes after the LSD has left the body. Flashbacks may occur days or even months after the last LSD experience.
Cannabis

Cannabis sativa, the hemp plant, grows in warm climates throughout the world. The drugs produced from varieties of hemp are, as a group, called cannabis. The most powerful of them is hashish; the weaker ones include the best-known form of cannabis, marijuana, a mixture derived from the buds, crushed leaves, and flowering tops of hemp plants. More than 19 million people over the age of 11 (7.3 percent of the population) currently smoke marijuana at least monthly; more than 5 million smoke it daily (NSDUH, 2013).

Each of the cannabis drugs is found in various strengths because the potency of a cannabis drug is greatly affected by the climate in which the plant is grown, the way it was prepared, and the manner and duration of its storage. Of the several hundred active chemicals in cannabis, tetrahydrocannabinol (THC) appears to be the one most responsible for its effects. The higher the THC content, the more powerful the cannabis; hashish contains a large portion, while marijuana’s is small.

When smoked, cannabis produces a mixture of hallucinogenic, depressant, and stimulant effects. At low doses, the smoker typically has feelings of joy and relaxation and may become either quiet or talkative. Some smokers, however, become anxious, suspicious, or irritated, especially if they have been in a bad mood or are smoking in an upsetting environment. Many smokers report sharpened perceptions and fascination with the intensified sounds and sights around them. Time seems to slow down, and distances and sizes seem greater than they actually are. This overall “high” is technically called cannabis intoxication. Physical changes include reddening of the eyes, fast heartbeat, increases in blood pressure and appetite, dryness in the mouth, and dizziness. Some people become drowsy and may fall asleep.

In high doses, cannabis produces odd visual experiences, changes in body image, and hallucinations. Smokers may become confused or impulsive. Some worry that other people are trying to hurt them. Most of the effects of cannabis last 2 to 6 hours. The changes in mood, however, may continue longer.

Cannabis Use Disorder Until the early 1970s, the use of marijuana, the weak form of cannabis, rarely led to a pattern of cannabis use disorder. Today, however, many people, including large numbers of high school students, are developing the disorder, getting high on marijuana regularly and finding their social and occupational or academic lives very much affected (see Figure 12-3). Many regular users also develop a tolerance for marijuana and may feel restless and irritable and have flulike symptoms when they stop smoking (Chen et al., 2005). Around 4.3 million people, 1.7 percent of all teenagers and adults in the United States, have displayed cannabis use disorder within the past month (NSDUH, 2013).

Why have more and more marijuana users developed cannabis use disorder over the past three decades? Mainly because marijuana has changed. The marijuana widely

The source of marijuana

Marijuana is made from the leaves of the hemp plant, Cannabis sativa. The plant is an annual herb, reaches a height of between 3 and 15 feet, and is grown in a wide range of altitudes, climates, and soils.

figure 12-3

How easy is it for teenagers to acquire substances? Most surveyed tenth graders say it is easy to get cigarettes, alcohol, and marijuana, and more than one-fifth say it is easy to get Ecstasy and amphetamines. (Information from: Johnston et al., 2014)
available in the United States today is at least four times more powerful than that used in the early 1970s. The average THC content of today's marijuana is 8 percent, compared with 2 percent in the late 1960s. Marijuana is now grown in places with a hot, dry climate, which increases the THC content.

Is Marijuana Dangerous? As the strength and use of marijuana have increased, researchers have discovered that smoking it may pose certain dangers (Price, 2011). It occasionally causes panic reactions similar to the ones caused by hallucinogens, and some smokers may fear they are losing their minds (APA, 2000). Typically such reactions end in 2 to 6 hours, along with marijuana's other effects.

Because marijuana can interfere with the performance of complex sensorimotor tasks and with cognitive functioning, it has caused many automobile accidents (Brady & Li, 2014). Furthermore, people on a marijuana high often fail to remember information, especially anything that has been recently learned, no matter how hard they try to concentrate; thus heavy marijuana smokers are at a serious disadvantage at school or work (Budney et al., 2011; Jaffe & Klein, 2010).

One study compared blood flow in the brain arteries of chronic marijuana users and nonusers (Herning et al., 2005). After one month of abstinence from smoking marijuana, chronic users continued to have higher blood flow than nonusers. Though still higher than normal, the blood flow of light marijuana users (fewer than 16 smokes per week) and of moderate users (fewer than 70 smokes per week) did improve somewhat over the course of the abstinence month. The blood flow of heavy users, however, showed no improvement. This lingering effect may help explain the memory and thinking problems of chronic heavy users of marijuana.

There are research indications that regular marijuana smoking may also lead to long-term health problems (Budney et al., 2011; Whitten, 2010). It may, for example, contribute to lung disease, although there is considerable debate on this issue (Pletcher et al., 2012; NIDA, 2002, Tashkin, 2001). Some studies suggest that marijuana smoking reduces the ability to expel air from the lungs, perhaps even more than tobacco smoking does. Another concern is the effect of regular marijuana smoking on human reproduction. Studies since the late 1970s have discovered lower sperm counts in men who are chronic smokers and abnormal ovulation in women who are chronic smokers (Hartney, 2014; Schuel et al., 2002).

Efforts to educate the public about the dangers of repeated marijuana use appeared to have paid off throughout the 1980s. The percentage of high school seniors who smoked marijuana on a daily basis decreased from 11 percent in 1978 to 2 percent in 1992. Today, however, 6.5 percent of high school seniors smoke it daily, and more than 50 percent of seniors do not believe that regular use poses a great risk (Johnston et al., 2014; NSDUH, 2013) (see Figure 12-4 on the next page).

Cannabis and Society: A Rocky Relationship For centuries, cannabis played a respected role in medicine. It was recommended as a surgical anesthetic by Chinese physicians 2,000 years ago and was used in other lands to treat cholera, malaria, coughs, insomnia, and rheumatism. When cannabis entered the United States in the early twentieth century, mainly in the form of marijuana, it was likewise used for various medical purposes. Soon, however, more effective medicines replaced it, and the favorable view of cannabis began to change. Marijuana began to be used as a recreational drug, and its illegal distribution became a law enforcement problem. Authorities assumed it was highly dangerous and outlawed the “killer weed.”

In the 1980s, researchers developed precise techniques for measuring THC and for extracting pure THC from cannabis; they also developed laboratory forms of THC. These inventions opened the door to new medical applications for cannabis (Mack & Joy, 2001), such as its use in treating glaucoma, a severe eye disease.
Cannabis was also found to help patients with chronic pain or asthma, to reduce the nausea and vomiting of cancer patients in chemotherapy, and to improve the appetites of people with AIDS and so help them combat weight loss.

In light of these findings, several interest groups campaigned during the late 1980s for the medical legalization of marijuana, which operates on the brain and body more quickly than the THC capsules developed in the laboratory. Government agencies resisted this movement, saying prescriptions for pure THC served all needed medical functions. But the battle between advocates and opponents of the legalization of marijuana for medical purposes was just beginning; that battle has continued to the present day.

In 2005, the U.S. Supreme Court ruled 6 to 3 that medically ill marijuana smokers and those who help them grow or obtain marijuana can be prosecuted, even if their physicians prescribe it and even if they live in states where medical marijuana use is legal. Although this ruling was initially considered a blow to the medical marijuana cause, proponents have fought on, and in 2009 the U.S. Attorney General directed federal prosecutors to not pursue cases against medical marijuana users or their caregivers who are complying with state laws. Currently, 23 states have laws allowing marijuana to be used for medical purposes, and several more have such laws pending (Tilak, 2014).

Canada’s federal government has taken a much more lenient position on the medical marijuana issue than the U.S. federal government. Based on a series of studies and trial programs, Health Canada, the country’s health care regulator, now legally permits people who are suffering from severe and debilitating illnesses to use marijuana for medical purposes. It allows the sale of medical marijuana in
select pharmacies, making Canada the second country in the world, after the Netherlands, to do so. And it licenses numerous companies to produce medical marijuana, requiring that the manufacturers meet standards similar to those generally required in the pharmaceutical industry (Tilak, 2014). So far, 13 such companies have obtained licenses, and 850 more have applied for licenses.

Heartened by such developments in the realm of medical marijuana, the movement to legalize the recreational use of marijuana has gained enormous momentum in recent years. In fact, since 2012 residents in the states of Colorado, Washington, Alaska, and Oregon have voted to legalize marijuana for use of any kind—although such state measures still can be blocked by the federal government. The enactment of these state laws reflects growing public support for the outright legalization of marijuana. According to recent polls, more than half of Americans believe that marijuana should be made legal, up from 12 percent in 1969 and 41 percent in 2010 (Pew Research Center, 2013). In such polls, half of all respondents say they have tried marijuana, and 60 percent say that the federal government should not enforce federal antimarijuana laws in states where marijuana is legal.

**Combinations of Substances**

Because people often take more than one drug at a time, a pattern called polysubstance use, researchers have studied the ways in which drugs interact with one another (De La Garza & Kalechstein, 2012). Two important discoveries have emerged from this work: the phenomena of cross-tolerance and synergistic effects.

Sometimes two or more drugs are so similar in their actions on the brain and the body that as people build a tolerance for one drug, they are simultaneously developing a tolerance for the other, even if they have never taken the latter. Correspondingly, users who display such cross-tolerance can reduce the symptoms of withdrawal from one drug by taking the other. Alcohol and antianxiety drugs are cross-tolerant, for example, so it is sometimes possible to reduce the alcohol withdrawal reaction of delirium tremens by administering benzodiazepines, along with vitamins and electrolytes (Hart & Ksir, 2014).

When different drugs are in the body at the same time, they may multiply, or potentiate, each other’s effects. The combined impact, called a synergistic effect, is often greater than the sum of the effects of each drug taken alone: a small dose...
of one drug mixed with a small dose of another can produce an enormous change in body chemistry.

One kind of synergistic effect occurs when two or more drugs have similar actions (McCance-Katz, 2010). For instance, alcohol, benzodiazepines, barbiturates, and opioids—all depressants—may severely depress the central nervous system when mixed (Hart & Ksir, 2014). Combining them, even in small doses, can lead to extreme intoxication, coma, and even death. A young man may have just a few alcoholic drinks at a party, for example, and shortly afterward take a moderate dose of barbiturates to help him fall asleep. He believes he has acted with restraint and good judgment—yet he may never wake up.

A different kind of synergistic effect results when drugs have opposite, or antagonistic, actions. Stimulant drugs, for example, interfere with the liver’s usual disposal of barbiturates and alcohol. Thus people who combine barbiturates or alcohol with cocaine or amphetamines may build up toxic, even lethal, levels of the depressant drugs in their systems. Students who take amphetamines to help them study late into the night and then take barbiturates to help them fall asleep are unknowingly placing themselves in serious danger.

Each year tens of thousands of people are admitted to hospitals with a multiple-drug emergency, and several thousand of them die (SAMHSA, 2013). Sometimes the cause is carelessness or ignorance. Often, however, people use multiple drugs precisely because they enjoy the synergistic effects. In fact, as many as 90 percent of those who use one illegal drug are also using another to some extent (Rosenthal & Levounis, 2011, 2005).

Fans mourn the deaths of many celebrities who have died from polysubstance use. For example, in 2014 the New York City medical examiner ruled that actor Philip Seymour Hoffman died of “acute mixed drug intoxication,” citing the presence of heroin, cocaine, benzodiazepines, and amphetamines in his system (Coleman, 2014). In the more distant past, Elvis Presley’s delicate balancing act of stimulants and depressants, Janis Joplin’s mixtures of wine and heroin, and John Belushi’s and Chris Farley’s liking for the combined effect of cocaine and opioids (“speedballs”) each ended in tragedy.

What Causes Substance Use Disorders?

Clinical theorists have developed sociocultural, psychological, and biological explanations for why people develop substance use disorders. No single explanation, however, has gained broad support. Like so many other disorders, excessive and chronic drug use is increasingly viewed as the result of a combination of these factors.

Sociocultural Views

A number of sociocultural theorists propose that people are most likely to develop substance use disorders when they live under stressful socioeconomic conditions (Gardner et al., 2010). Studies have found that regions with higher unemployment levels have higher alcoholism rates. Similarly, people in lower socioeconomic classes have rates of substance use disorder that are higher than those of the other classes (Marsiglia & Smith, 2010; Franklin & Markarian, 2005). In a related vein, 18 percent of unemployed adults currently use an illegal drug, compared with 9 percent of full-time employed workers and 12.5 percent of part-time employees (NSDUH, 2013).

Who has more impact on the drug behaviors of teenagers and young adults: rock performers who speak out against drugs or rock performers who praise drugs?

Easy to make, dangerous to take

A drug user in Greece prepares a cocktail known as a speedball, a mixture of cocaine and heroin. The pink capsule in her hand contains heroin and the blue one contains cocaine. Speedballs have been linked to numerous polysubstance deaths, including those of famous Saturday Night Live comedians John Belushi and Chris Farley.

> cross-tolerance Tolerance for a substance one has not taken before as a result of using another substance similar to it.

> synergistic effect In pharmacology, an increase of effects that occurs when more than one substance is acting on the body at the same time.
Sociocultural theorists hold that people confronted regularly by other kinds of stress also have a heightened risk of developing substance use disorders. A range of studies conducted with Hispanic and African American people, for example, find higher rates of substance use disorders among those participants who live or work in environments of particularly intense discrimination (Clark, 2014; Hurd et al., 2014; Unger et al., 2014).

Still other sociocultural theorists propose that people are more likely to develop substance use disorders if they are part of a family or social environment in which substance use is valued or at least accepted (Chung et al., 2014; Washburn et al., 2014). Researchers have learned that problem drinking is more common among teenagers whose parents and peers drink, as well as among teenagers whose family environments are stressful and unsupportive (Wilens et al., 2014; Andrews & Hops, 2011; Kliewer, 2010). Moreover, lower rates of alcoholism are found among Jews and Protestants, groups in which drinking is typically acceptable only as long as it remains within clear limits, whereas alcoholism rates are higher among the Irish and Eastern Europeans, who do not, in general, draw as clear a line (Hart & Ksir, 2014; Ledoux et al., 2002).

Psychodynamic Views

Psychodynamic theorists believe that people with substance use disorders have powerful dependency needs that can be traced to their early years (Iglesias et al., 2014; Dodes & Khantzian, 2011, 2005). They suggest that when parents fail to satisfy a young child's need for nurturance, the child is likely to grow up depending excessively on others for help and comfort, trying to find the nurturance that was lacking during the early years. If this search for outside support includes experimentation with a drug, the person may well develop a dependent relationship with the substance.

Some psychodynamic theorists also believe that certain people respond to their early deprivations by developing a substance abuse personality that leaves them particularly prone to drug abuse. Personality inventories, patient interviews, and even animal studies have in fact indicated that individuals who abuse drugs tend to be more dependent, antisocial, impulsive, novelty-seeking, risk-taking, and depressive than other individuals (Hicks et al., 2014). However, these findings are correlational (at least, the findings from human studies are), and do not clarify whether such traits lead to chronic drug use or whether repeated drug use causes people to be dependent, impulsive, and the like.

In an effort to establish clearer causation, one pioneering longitudinal study measured the personality traits of a large group of nonalcoholic young men and then kept track of each man's development (Jones, 1971, 1968). Years later, the traits of the men who developed alcohol problems in middle age were compared with the traits of those who did not. The men who developed alcohol problems had been more impulsive as teenagers and continued to be so in middle age, a finding suggesting that impulsive men are indeed more prone to develop alcohol problems. Similarly, in various laboratory investigations, “impulsive” rats—those that generally have trouble delaying their rewards—have been found to drink more alcohol when offered it than other rats (Bari et al., 2011; Poulos et al., 1995).

A major weakness of this line of argument is the wide range of personality traits that have been tied to substance use disorders. Different studies point to different “key” traits (Wills & Ainette, 2010). Inasmuch as some people with these disorders appear to be dependent, others impulsive, and still others antisocial, researchers cannot presently conclude that any one personality trait or group of traits stands out in the development of the disorders (Chassin et al., 2001).
Cognitive-Behavioral Views

According to behaviorists, operant conditioning may play a key role in substance use disorders. They argue that the temporary reduction of tension or raising of spirits produced by a drug has a rewarding effect, thus increasing the likelihood that the user will seek this reaction again (Clark, 2014; Urošević et al., 2014). Similarly, the rewarding effects may eventually lead users to try higher dosages or more powerful methods of ingestion (see Table 12-4). Cognitive theorists further argue that such rewards eventually produce an expectancy that substances will be rewarding, and this expectation helps motivate people to increase drug use at times of tension (Sussman, 2010).

In support of these behavioral and cognitive views, studies have found that many people do drink more alcohol or seek heroin when they feel tense (Kassel et al., 2010; McCarthy et al., 2010). In one study, as participants worked on a difficult anagram task, a confederate planted by the researchers unfairly criticized and belittled them (Marlatt, Kosturn, & Lang, 1975). The participants were then asked to participate in an “alcohol taste task,” supposedly to compare and rate alcoholic beverages. Those who had been harassed drank more alcohol during the taste task than did the control participants who had not been criticized.

In a manner of speaking, the cognitive-behavioral theorists are arguing that many people take drugs to “medicate” themselves when they feel tense. If so, one would expect higher rates of substance use disorders among people who suffer from anxiety, depression, and other such problems. And, in fact, at least 19 percent of all adults who suffer from psychological disorders also display substance use disorders (Keyser-Marcus et al., 2014; NSDUH, 2013).

A number of behaviorists have proposed that classical conditioning may also play a role in these disorders (O’Brien, 2013; Cunningham et al., 2011). As you’ll remember...
from Chapters 3 and 5, classical conditioning occurs when two stimuli that appear close together in time become connected in a person’s mind, so that eventually, the person responds similarly to each stimulus. Cues or objects present in the environment at the time a person takes a drug may act as classically conditioned stimuli and come to produce some of the same pleasure brought on by the drugs themselves. Just the sight of a hypodermic needle, drug buddy, or regular supplier, for example, has been known to comfort people who are addicted to heroin or amphetamines and to relieve their withdrawal symptoms. In a similar manner, cues or objects that are present during withdrawal distress may produce withdrawal-like symptoms. One man who had formerly been dependent on heroin became nauseated and had other withdrawal symptoms when he returned to the neighborhood where he had gone through withdrawal in the past—a reaction that led him to start taking heroin again (O’Brien et al., 1975). Although classical conditioning certainly appears to be at work in particular cases of substance use disorder, it has not received widespread research support as the key factor in such disorders (Grimm, 2011).

Biological Views

In recent years, researchers have come to suspect that drug misuse may have biological causes. Studies on genetic predisposition and specific biochemical processes have provided some support for these suspicions.

Genetic Predisposition

For years, breeding experiments have been conducted to see whether certain animals are genetically predisposed to become addicted to drugs (Carroll & Meisch, 2011; Weiss, 2011). In several studies, for example, investigators have first identified animals that prefer alcohol to other beverages and then mated them to one another. Generally, the offspring of these animals have been found also to display an unusual preference for alcohol.

Similarly, some research with human twins has suggested that people may inherit a predisposition to misuse substances (Ystrom et al., 2014). One classic study found an alcoholism concordance rate of 54 percent in a group of identical twins; that is, if one identical twin displayed alcoholism, the other twin also did in 54 percent of the cases. In contrast, a group of fraternal twins had a concordance rate of only 28 percent (Kaij, 1960). Other studies have found similar twin patterns (Koskinen et al., 2011; Legrand et al., 2005; Tsuang et al., 2001). As you have read, however, such findings do not rule out other interpretations. For one thing, the parenting received by two identical twins may be more similar than that received by two fraternal twins.

A clearer indication that genetics may play a role in substance use disorders comes from studies of alcoholism rates in people adopted shortly after birth (Samek et al., 2014; Walters, 2002; Cadoret et al., 1995; Goldstein, 1994). These studies have compared adoptees whose biological parents abuse alcohol with adoptees whose biological parents do not. By adulthood, the individuals whose biological parents abuse alcohol typically show higher rates of alcoholism than those with nonalcoholic biological parents.

Genetic linkage strategies and molecular biology techniques provide more direct evidence in support of a genetic explanation (Pieters et al., 2012; Gelernter & Kranzler, 2008). One line of investigation has found an abnormal form of the so-called dopamine-2 (D2) receptor gene in a majority of research participants with substance use disorders but in less than 20 percent of participants who do not have such disorders (Cosgrove, 2010; Blum et al., 1996, 1990). Other studies have tied still other genes to substance use disorders.
Biochemical Factors  Over the past few decades, researchers have pieced together several biological explanations of drug tolerance and withdrawal symptoms (Chung et al., 2012; Kosten, George, & Kleber, 2011, 2005; Schmidt et al., 2011). According to one of the leading explanations, when a particular drug is ingested, it increases the activity of certain neurotransmitters whose normal purpose is to calm, reduce pain, lift mood, or increase alertness. When a person keeps on taking the drug, the brain apparently makes an adjustment and reduces its own production of the neurotransmitters. Because the drug is increasing neurotransmitter activity or efficiency, the brain’s release of the neurotransmitter is less necessary. As drug intake increases, the body’s production of the neurotransmitters continues to decrease, leaving the person in need of progressively more of the drug to achieve its effects. In this way, drug takers build tolerance for a drug, becoming more and more reliant on it rather than on their own biological processes to feel comfortable, happy, or alert. If they suddenly stop taking the drug, their natural supply of neurotransmitters will be low for a time, producing the symptoms of withdrawal. Withdrawal continues until the brain resumes its normal production of the neurotransmitters.

Which neurotransmitters are affected depends on the drug used. Repeated and excessive use of alcohol or benzodiazepines may lower the brain’s production of the neurotransmitter GABA, regular use of opioids may reduce the brain’s production of endorphins, and regular use of cocaine or amphetamines may lower the brain’s production of dopamine (Kosten et al., 2011, 2005). In addition, researchers have identified a neurotransmitter called anandamide that operates much like THC; excessive use of marijuana may reduce the production of anandamide (Budney et al., 2011; Hitti, 2004).

This theory helps explain why people who regularly take substances have tolerance and withdrawal reactions. But why are drugs so rewarding, and why do certain people turn to them in the first place? A number of brain-imaging studies suggest that many, perhaps all, drugs eventually activate a reward center, or “pleasure pathway,” in the brain (Urošević et al., 2014; de Wit & Phan, 2010). This reward center apparently extends from the brain area called the ventral tegmental area (in the midbrain) to an area known as the nucleus accumbens and on to the frontal cortex (see Figure 12-5). A key neurotransmitter in this pleasure pathway appears to be dopamine (Trifilieff & Martinez, 2014; Chung et al., 2012). When dopamine is activated along the pleasure pathway, a person feels pleasure. Music may activate dopamine in the reward center. So may a hug or a word of praise. And so do drugs. Some researchers believe that other neurotransmitters may also play important roles in the reward center ( McClure et al., 2014).

Certain drugs apparently stimulate the reward center directly. Remember that cocaine, amphetamines, and caffeine directly increase dopamine activity. Other drugs seem to stimulate it in roundabout ways. The biochemical reactions triggered by alcohol, opioids, and marijuana probably set in motion a series of chemical events that eventually lead to increased dopamine activity in the reward center.

A number of theorists further believe that when substances repeatedly stimulate this reward center, the center develops a hypersensitivity to the substances. Neurons in the center fire more readily when stimulated by the substances, contributing to future desires for them.
This theory, called the *incentive-sensitization theory* of addiction, has received considerable support in both animal and human studies (Urošević et al., 2014; Loweth & Vezina, 2011).

Still other theorists suspect that people who chronically use drugs may suffer from a *reward-deficiency syndrome*: Their reward center is not readily activated by the usual events in their lives, so they turn to drugs to stimulate this pleasure pathway, particularly in times of stress (de Haan et al., 2014; Garfield et al., 2014; Blum et al., 2000). Abnormal genes, such as the abnormal D2 receptor gene, have been cited as a possible cause of this syndrome (Trifilieff & Martinez, 2014; Finckh, 2001).

### How Are Substance Use Disorders Treated?

Many approaches have been used to treat substance use disorders (see MediaSpeak on the next page), including psychodynamic, behavioral, cognitive-behavioral, and biological approaches, along with several sociocultural therapies. Although these treatments sometimes meet with great success, more often they are only moderately helpful (Belendiuk & Riggs, 2014; Myrick & Wright, 2008). Today the treatments are typically used on either an outpatient or inpatient basis or a combination of the two (see Figure 12-6).

The effectiveness of treatment for substance use disorders can be difficult to determine. There are several reasons for this. First, different substance use disorders pose different problems. Second, many people with such disorders drop out of treatment very early (Radcliffe & Stevens, 2010). Third, some people recover without any intervention at all (Wilson, 2010), while many others recover and then relapse (Belendiuk & Riggs, 2014). And, fourth, different criteria are used by different clinical researchers. How long, for example, must a person refrain from substance use in order to be called a treatment success? And is total abstention the only criterion, or is a reduction of drug use acceptable?

### Psychodynamic Therapies

Psychodynamic therapists first guide clients to uncover and work through the underlying needs and conflicts that they believe have led to the substance use disorder. The therapists then try to help the clients change their substance-related styles of...
Jeff has been sober 22 months, he tells me. Without blinking or ducking, his clear blue eyes looking straight at me, he says that if it were not for Sobriety High, he'd be dead. I believe him. . . . Sobriety High started in Minneapolis in 1989 with just two students. It has 100 more today, and 33 sober high schools have sprung up in eight other states. . . . According to a National Institute on Drug Abuse study, 78% of the students in sober high schools attend after receiving formal rehab. . . .

Enrollment is similar to any other school—students arrive with transcripts and all the typical paperwork. At Sobriety High, there is an interview with both the prospective student and the parents. The staff tries to determine where the teen is in their recovery and how committed they are. . . .

While it undoubtedly feels like a school, the wall banners feature phrases like “Turning It Over Is A Turning Point” rather than, say, a sign for the prom. The students are diverse, with hair of all different lengths and colors; some have the seemingly requisite addict tattoos while others are decked out in Goth garb and still others project a distinctly Midwestern Wonder Bread aura. Their journeys are also diverse, with the lucky ones landing here after treatment but many coming from the courts, detox or the streets. . . .

Recovery schools fill in the educational and emotional holes opened when kids use. The classes are small so that teachers can check in with each student regularly and the curriculum flexible so as to help them with what they missed while they were using or in treatment. Some programs help students—many with hair-raising records—find work. Some also work with chemically dependent parents and older siblings as well. Students typically have “group” each day, and while it is not an AA meeting, the DNA of AA is evident. . . .

All teenagers have low impulse control but the stakes are higher for chemically dependent kids trying to stay sober. Says Joe Schrank, founder of the Core Company and a board member of the National Youth Recovery Foundation (as well as a co-founder of The Fix), “When you put pot and booze on top of adolescent stupidity, kids are at risk.” . . .

Just try adding acne, constant temptation and regularly being heckled that you’re a “pussy” to a standard newcomer’s recovery and you’ll see just how high the deck is stacked against teenage sobriety; the notion of placing them in an environment that caters to clean living thus makes sense. . . .

Ninety percent of students at Sobriety High have other mental health issues besides chemical dependency [and] need the extra support of counselors, psychologists, and ongoing mental health support, and this is costly. . . . “It takes more money per student, and the schools must be on a segregated site if they are to have a drug and alcohol free campus.” . . .

For barely sober teens . . . closing recovery schools would be disastrous. “Many of them will go back to the streets, or prison, or they will be dead,” says . . . the Sobriety High social worker. . . .

Supporters . . . point out that closing recovery schools makes little fiscal sense. “Recovery school is a fraction of the cost of incarceration,” says Joe Schrank. “If you like having these kids in high school, you’ll love having them in prison.”

“Look at Drug Courts,” adds former Congressman Jim Ramstad. “The recidivism rate for those who complete the course is 24% while the rate for criminal court is 75%.” . . .

[Social worker Debbie Bolton] says plainly, “What we do is important. We save lives.”

living. Although this approach is often used, it has not been found to be particularly effective (McCrady et al., 2014). It may be that substance use disorders, regardless of their causes, eventually become stubborn independent problems that must be the direct target of treatment if people are to become drug-free. Psychodynamic therapy tends to be of more help when it is combined with other approaches in a multidimensional treatment program (Lightdale et al., 2011, 2008).

**Behavioral Therapies**

A widely used behavioral treatment for substance use disorders is **aversion therapy**, an approach based on the principles of classical conditioning. Clients are repeatedly presented with an unpleasant stimulus (for example, an electric shock) at the very moment that they are taking a drug. After repeated pairings, they are expected to react negatively to the substance itself and to lose their craving for it.

Aversion therapy has been used to treat alcoholism more than it has to treat other substance use disorders. In one version of this therapy, drinking is paired with drug-induced nausea and vomiting (McCrady et al., 2014; Owen-Howard, 2001; Welsh & Liberto, 2001). The pairing of nausea with alcohol is expected to produce negative responses to alcohol itself. Another version of aversion therapy requires people with alcoholism to imagine extremely upsetting, repulsive, or frightening scenes while they are drinking. The pairing of the imagined scenes with alcohol is expected to produce negative responses to alcohol itself. Here is the kind of scene therapists may guide a client to imagine:

> I'd like you to vividly imagine that you are tasting the (beer, whiskey, etc.). See yourself tasting it, capture the exact taste, color and consistency. Use all of your senses. After you've tasted the drink you notice that there is something small and white floating in the glass—it stands out. You bend closer to examine it more carefully, your nose is right over the glass now and the smell fills your nostrils as you remember exactly what the drink tastes like. Now you can see what's in the glass. There are several maggots floating on the surface. As you watch, revolted, one manages to get a grip on the glass and, undulating, creeps up the glass. There are even more of the repulsive creatures in the glass than you first thought. You realise that you have swallowed some of them and you’re very aware of the taste in your mouth. You feel very sick and wish you’d never reached for the glass and had the drink at all.

*(Clarke & Saunders, 1988, pp. 143–144)*

A behavioral approach that has been effective in the short-term treatment of people who are addicted to cocaine and several other drugs is **contingency management**, which makes incentives (such as cash, vouchers, prizes, or privileges) contingent on the submission of drug-free urine specimens (Godley et al., 2014; Dallery et al., 2012). In one pioneering study, 68 percent of cocaine abusers who completed a 6-month contingency training program achieved at least 8 weeks of continuous abstinence (Higgins et al., 2011, 1993).

Behavioral interventions for substance use disorders have usually had only limited success when they are the sole form of treatment (Belendiuk & Riggs, 2014; Carroll, 2008). A major problem is that the approaches can be effective only when people are motivated to continue using them despite their unpleasantness or demands. Generally, behavioral treatments work best in combination with either biological or cognitive approaches (Belendiuk & Riggs, 2014; Carroll & Kiluk, 2012).
Cognitive-Behavioral Therapies

Cognitive-behavioral treatments for substance use disorders help clients identify and change the behaviors and cognitions that keep contributing to their patterns of substance misuse (Gregg et al., 2014; Yoon et al., 2012). Practitioners of these approaches also help the clients develop more effective coping skills—skills that can be applied during times of stress, temptation, and substance craving.

Perhaps the most prominent cognitive-behavioral approach to substance misuse is relapse-prevention training (Jhanjee, 2014; Daley et al., 2011). The overall goal of this approach is for clients to gain control over their substance-related behaviors. To help reach this goal, clients are taught to identify high-risk situations, appreciate the range of decisions that confront them in such situations, change their dysfunctional lifestyles, and learn from mistakes and lapses.

Several strategies typically are included in relapse-prevention training for alcohol use disorder: (1) Therapists have clients keep track of their drinking. By writing down the times, locations, emotions, bodily changes, and other circumstances of their drinking, people become more aware of the situations that place them at risk for excessive drinking. (2) Therapists teach clients coping strategies to use when such situations arise. Clients learn, for example, to recognize when they are approaching their drinking limits; to control their rate of drinking (perhaps by spacing their drinks or by sipping them rather than gulping); and to practice relaxation techniques, assertiveness skills, and other coping behaviors in situations in which they would otherwise be drinking. (3) Therapists teach clients to plan ahead of time. Clients may, for example, determine beforehand how many drinks are appropriate, what to drink, and under which circumstances to drink.

Relapse-prevention training has been found to lower some people’s frequency of intoxication and of binge drinking, although such gains are often made only after repeated relapse-prevention treatments (Jhanjee, 2014; Borden et al., 2011). People who are young and do not have the tolerance and withdrawal features of chronic alcohol use seem to do best with this approach (Hart & Ksir, 2014; Deas et al., 2008). Relapse-prevention training has also been used in cases of marijuana and cocaine abuse as well as with other kinds of disorders, such as sexual paraphilic disorders (see Chapter 13).

Better ways to cope

Several treatments for substance use disorders, including relapse-prevention training, teach clients alternative—more functional—ways of coping with stress and negative emotions. In that spirit, this patient at a drug rehabilitation center in China developed the practice of kicking a punching dummy to help release his pent-up anger.
Another form of cognitive-behavioral treatment that has been used in cases of substance use disorder is *acceptance and commitment therapy* (ACT). As you read in Chapters 3 and 5, ACT therapists use a mindfulness-based approach to help clients become aware of their streams of thoughts as they are occurring and to accept such thoughts as mere events of the mind. For people with substance use disorders, that means increasing their awareness and acceptance of their drug cravings, worries, and depressive thoughts. By accepting such thoughts rather than trying to eliminate them, the clients are expected to be less upset by them and less likely to act on them by seeking out drugs. Research indicates that ACT is more effective than placebo treatments and at least as effective as other cognitive-behavioral treatments for substance use disorders, and sometimes more effective (Bowen et al., 2014; Chiesa & Serretti, 2014; Lanza et al., 2014). In some cases, ACT has been combined with relapse-prevention training or other cognitive-behavioral approaches, a combination that sometimes yields more success than either approach alone (Black, 2014).

### Biological Treatments

Biological treatments may be used to help people withdraw from substances, abstain from them, or simply maintain their level of use without increasing it further. As with the other forms of treatment, biological approaches alone rarely bring long-term improvement, but they can be helpful when combined with other approaches.

**Detoxification** Detoxification is systematic and medically supervised withdrawal from a drug. Some detoxification programs are offered on an outpatient basis. Others are located in hospitals and clinics and may also include individual and group therapy, a “full-service” institutional approach that has become popular. One detoxification approach is to have clients withdraw gradually from the substance, taking smaller and smaller doses until they are off the drug completely. A second—often medically preferred—detoxification strategy is to give clients other drugs that reduce the symptoms of withdrawal (Day & Strang, 2011). Antianxiety drugs, for example, are sometimes used to reduce severe alcohol withdrawal reactions such as delirium tremens and seizures. Detoxification programs seem to help motivated people withdraw from drugs (Müller et al., 2010). However, relapse rates tend to be high for those who do not receive a follow-up form of treatment—psychological, biological, or sociocultural—after successfully detoxifying (Blodgett et al., 2014; Day & Strang, 2011).

Forced detoxification

Abstinence is not always medically supervised, nor is it necessarily planned or voluntary. This person, who is suffering from alcoholism, begins to have symptoms of withdrawal soon after being imprisoned for public intoxication.
Antagonist Drugs After successfully stopping a drug, people must avoid falling back into a pattern of chronic use. As an aid to resisting temptation, some people with substance use disorders are given antagonist drugs, which block or change the effects of the addictive drug (Chung et al., 2012; O’Brien & Kampman, 2008). Disulfiram (Antabuse), for example, is often given to people who are trying to stay away from alcohol. By itself, a low dose of disulfiram seems to have few negative effects, but a person who drinks alcohol while taking it will have intense nausea, vomiting, blushing, a faster heart rate, dizziness, and perhaps fainting. People taking disulfiram are less likely to drink alcohol because they know the terrible reaction that awaits them should they have even one drink. Disulfiram has proved helpful, but again only with people who are motivated to take it as prescribed (Diclemente et al., 2008). In addition to disulfiram, several other antagonist drugs are now being tested.

For substance use disorders centered on opioids, several narcotic antagonists, such as naloxone, are used (Alter, 2014; Harrison & Petrakis, 2011). These antagonists attach to endorphin receptor sites throughout the brain and make it impossible for the opioids to have their usual effect. Without the rush or high, continued drug use becomes pointless. Although narcotic antagonists have been helpful—particularly in emergencies, to rescue people from an overdose of opioids—they can in fact be dangerous for people who are addicted to opioids. The antagonists must be given very carefully because of their ability to throw such persons into severe withdrawal.

So-called partial antagonists, narcotic antagonists that produce less severe withdrawal symptoms, have also been developed (Hart & Ksir, 2014; Dijkstra et al., 2010). Many clinicians now prefer partial antagonists over full antagonists to help people withdraw from opioid use. The use of antagonists to help people withdraw is often called rapid detoxification because the antagonists speed things along. The full antagonists remain the treatment of choice in emergency cases of overdose.

Research indicates that narcotic antagonists may also be useful in the treatment of substance use disorders involving alcohol or cocaine (Harrison & Petrakis, 2011; Bishop, 2008). In some studies, for example, the narcotic antagonist naltrexone has helped reduce cravings for alcohol (O’Malley et al., 2000, 1996, 1992). Why should narcotic antagonists, which operate at the brain’s endorphin receptors, help with alcoholism, which has been tied largely to activity at GABA sites? The answer may lie in the reward center of the brain. If various drugs eventually stimulate the same pleasure pathway, it seems reasonable that antagonists for one drug may, in a roundabout way, affect the impact of other drugs as well.

Drug Maintenance Therapy A drug-related lifestyle may be a bigger problem than the drug’s direct effects. Much of the damage caused by heroin addiction, for example, comes from overdoses, unsterilized needles, and an accompanying life of crime. Thus clinicians were very enthusiastic when methadone maintenance programs were developed in the 1960s to treat heroin addiction (Dole & Nyswander, 1967, 1965). In these programs, people with an addiction are given the laboratory opioid methadone as a substitute, or agonist, for heroin. Although they then become dependent on methadone, their new addiction is maintained under safe medical supervision. Unlike heroin, methadone produces a moderate high, can be taken by mouth (thus eliminating the dangers of needles), and needs to be taken only once a day.

At first, methadone programs seemed very effective, and many of them were set up throughout the United States, Canada, and England. These programs became less popular during the 1980s, however, because...
of the dangers of methadone itself. Many clinicians came to believe that substituting one addiction for another is not an acceptable “solution” for a substance use disorder, and many people with an addiction complained that methadone addiction was creating an additional drug problem that simply complicated their original one (Winstock, Lintzeris, & Lea, 2011; McCance-Katz & Kosten, 2005). Methadone is sometimes harder to withdraw from than heroin because the withdrawal symptoms can last longer (Hart & Ksir, 2014; Day & Strang, 2011). Moreover, pregnant women maintained on methadone have the added concern of the drug’s effect on their fetus.

Despite such concerns, maintenance treatment with methadone—or with other opioid substitute drugs—has again sparked interest among clinicians in recent years, partly because of new research support (Balhara, 2014; Fareed et al., 2011) and partly because of the rapid spread of the HIV and hepatitis C viruses among intravenous drug abusers and their sex partners and children (Lambdin et al., 2014; Galanter & Kleber, 2008). Not only is methadone treatment safer than street opioid use, but many methadone programs now include AIDS education and other health instructions in their services. Research suggests that methadone maintenance programs are most effective when they are combined with education, psychotherapy, family therapy, and employment counseling (Jhanjee, 2014; Kouimtsidis & Drummond, 2010). Today thousands of clinics provide methadone treatment across the United States.

Sociocultural Therapies

As you have read, sociocultural theorists—both family-social and multicultural theorists—believe that psychological problems emerge in a social setting and are best treated in a social context. Three sociocultural approaches have been used to help people overcome substance use disorders: (1) self-help programs, (2) culture- and gender-sensitive programs, and (3) community prevention programs.

Self-Help and Residential Treatment Programs

Many people with substance use disorders have organized among themselves to help one another recover without professional assistance. The drug self-help movement dates back to 1935, when two Ohio men suffering from alcoholism met and wound up discussing alternative treatment possibilities. The first discussion led to others and to the eventual formation of a self-help group whose members discussed alcohol-related problems, traded ideas, and provided support. The organization became known as Alcoholics Anonymous (AA).

Today AA has more than 2 million members in 114,000 groups across the world (AA World Services, 2014). It offers peer support along with moral and spiritual guidelines to help people overcome alcoholism. Different members apparently find different aspects of AA helpful. For some it is the peer support; for others it is the spiritual dimension (Tusa & Burgholzer, 2013). Meetings take place regularly, and members are available to help each other 24 hours a day.

By offering guidelines for living, the organization helps members abstain “one day at a time,” urging them to accept as “fact” the idea that they are powerless over alcohol and that they must stop drinking entirely and permanently if they are to live normal lives (Nace, 2011, 2008). AA views alcoholism as a disease and takes the position that “Once an alcoholic, always an alcoholic” (Rosenthal, 2011; Rosenthal & Levounis, 2011, 2005; Pendery et al., 1982). Related self-help organizations, Al-Anon and Alateen, offer support for people who live with and care about people with alcoholism. Self-help programs such as Narcotics Anonymous and Cocaine Anonymous have been developed for other substance use disorders (Jaffe & Kelly, 2011).
It is worth noting that the abstinence goal of AA is in direct opposition to the controlled-drinking goal of relapse-prevention training and several other interventions for substance misuse (see pages 413–414). In fact, this issue—abstinence versus controlled drinking—has been debated for years (Hart & Ksir, 2014; Rosenthal, 2011, 2005). Feelings about it have run so strongly that in the 1980s the people on one side challenged the motives and honesty of those on the other (Sobell & Sobell, 1984, 1973; Pendery et al., 1982).

Research indicates, however, that both controlled drinking and abstinence may be useful treatment goals, depending on the nature of the particular drinking problem. Studies suggest that abstinence may be a more appropriate goal for people who have a long-standing alcohol use disorder, whereas controlled drinking can be helpful to younger drinkers whose pattern does not include tolerance and withdrawal reactions. Those in the latter group may indeed need to be taught a nonabusive form of drinking (Hart & Ksir, 2014; Witkiewitz & Marlatt, 2007, 2004). Studies also suggest that abstinence is appropriate for people who believe that it is the only answer for them, as they are more likely to relapse after having just one drink (Rosenthal, 2011, 2005; Carbonari & DiClemente, 2000).

Many self-help programs have expanded into residential treatment centers, or therapeutic communities—such as Daytop Village and Phoenix House—where people formerly addicted to drugs live, work, and socialize in a drug-free environment while undergoing individual, group, and family therapies and making a transition back to community life (O’Brien et al., 2011; Bonetta, 2010).

The evidence that keeps self-help and residential treatment programs going comes largely in the form of individual testimonials. Many tens of thousands of people have revealed that they are members of these programs and credit them with turning their lives around. Studies of the programs have also had favorable findings, but their numbers have been limited (Galanter, 2014; Moos & Timko, 2008).

**Culture- and Gender-Sensitive Programs** Many people with substance use disorders live in a poor and perhaps violent setting. A growing number of today’s treatment programs try to be sensitive to the special sociocultural pressures and problems faced by drug abusers who are poor, homeless, or members of minority groups (Hadland & Baer, 2014; Hurd et al., 2014; Lawson et al., 2011). Therapists who are sensitive to their clients’ life challenges can do more to address the stresses that often lead to relapse.

Similarly, therapists have become more aware that women often require treatment methods different from those designed for men (Lund, Brendryen, & Ravndal, 2014; Greenfield et al., 2011). Women and men often have different physical and psychological reactions to drugs, for example. In addition, treatment of women with substance use disorders may be complicated by the impact of sexual abuse, the possibility that they may be or may become pregnant while taking drugs, the stresses of raising children, and the fear of criminal prosecution for abusing drugs during pregnancy (Finnegan & Kandall, 2008). Thus many women with such disorders feel more comfortable seeking help at gender-sensitive clinics or residential programs; some such programs also allow children to live with their recovering mothers.
Community Prevention Programs Perhaps the most effective approach to substance use disorders is to prevent them (Sandler et al., 2014; Whitesell et al., 2014). The first drug-prevention programs were conducted in schools. Today such programs are also offered in workplaces, activity centers, and other community settings and even through the media (NSDUH, 2013). Around 12 percent of adolescents report that they have participated in drug prevention programs outside school within the past year. Around 75 percent have seen or heard a substance use—prevention message. And almost 60 percent have talked to their parents in the past year about the dangers of alcohol and other drugs.

Some prevention programs are based on a total abstinence model, while others teach responsible use. Some seek to interrupt drug use; others try to delay the age at which people first experiment with drugs. Programs may also differ in whether they offer drug education, teach alternatives to drug use, try to change the psychological state of the potential user, help people change their peer relationships, or combine these techniques.

Prevention programs may focus on the individual (for example, by providing education about unpleasant drug effects), the family (by teaching parenting skills), the peer group (by teaching resistance to peer pressure), the school (by setting up firm enforcement of drug policies), or the community at large. The most effective prevention efforts focus on several of these areas to provide a consistent message about drug misuse in all areas of people’s lives (Hansen et al., 2010). Some prevention programs have even been developed for preschool children.

Two of today’s leading community-based prevention programs are TheTruth.com and Above the Influence. The Truth is an anti-smoking campaign, aimed at young people in particular, that has “edgy” ads on the Web (on YouTube, for instance), on television, and in magazines and newspapers. Above the Influence is a similar advertising campaign that focuses on a range of substances abused by teenagers. Originally created by the U.S. Office of National

Sniffing for drugs
An increasingly common scene in schools, airports, storage facilities, and similar settings is that of trained dogs sniffing for marijuana, cocaine, opioids, and other substances. Here one such animal sniffs lockers at a school in Texas to see whether students have hidden any illegal substances among their books or other belongings.

Listen to my story
A prisoner stands shackled before students at an Ohio high school and discusses his drunk-driving conviction (his intoxicated driving resulted in a fatal automobile crash). These visits by inmates are part of the school’s “Make the Right Choice” prevention program.
Drug Control Policy, Above the Influence became a private, not-for-profit program in 2014.

Community-based prevention programs are not always effective, no matter how powerful and clever their ads may be. For example, after a 5-year study, the Government Accountability Office concluded in 2006 that the highly regarded My Anti-Drug campaign of the late 1990s and early 2000s had been largely ineffective. Thus, it is encouraging that a recent nationwide survey of 3,000 students suggests that watching Above the Influence ads may help reduce marijuana use by teenagers (Slater et al., 2011). The survey found that 8 percent of eighth-graders familiar with the campaign have taken up marijuana use, in contrast to 12 percent of students who have never seen the ads.

Other Addictive Disorders

As you read at the beginning of this chapter, DSM-5 lists gambling disorder as an addictive disorder alongside the substance use disorders. This represents a significant broadening of the concept of addiction, which in previous editions of the DSM referred only to the misuse of substances. In essence, DSM-5 is suggesting that people may become addicted to behaviors and activities beyond substance use.

Gambling Disorder

It is estimated that as many as 4 percent of adults and 3 to 10 percent of teenagers and college students suffer from gambling disorder (Nowak & Aloe, 2013; Black et al., 2012; Splevins et al., 2010). Clinicians are careful to distinguish between this disorder and social gambling (APA, 2013). Gambling disorder is defined less by the amount of time or money spent gambling than by the addictive nature of the behavior (Carragher & McWilliams, 2011). People with gambling disorder are preoccupied with gambling and typically cannot walk away from a bet. When they lose money repeatedly, they often gamble more in an effort to win the money back, and continue gambling even in the face of financial, social, occupational, educational, and health problems (see Table 12-5). They usually gamble more when feeling

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**Dx Checklist**

**Gambling Disorder**

1. Individual displays a maladaptive pattern of gambling, featuring at least four of the following symptoms over the course of a full year:
   (a) Can achieve desired excitement only by gambling more and more money.
   (b) Feels restless or irritable when tries to reduce gambling.
   (c) Repeatedly tries and fails at efforts to control, reduce, or cease gambling.
   (d) Consumed with gambling thoughts or plans.
   (e) Gambling is often triggered by upset feelings.
   (f) Frequently returns to gambling to try to recoup previous losses.
   (g) Covers up amount of gambling by lying.
   (h) Gambling has put important relationships, job, or educational/career opportunities at risk.
   (i) Seeks money from others to address gambling-induced financial problems.

2. Individual experiences significant distress or impairment.

(Information from: APA, 2013)
distressed, and often lie to cover up the extent of their gambling. Many people with gambling disorder need to gamble with ever-larger amounts of money to reach the desired excitement, and they feel restless or irritable when they try to reduce or stop gambling—symptoms that are similar to the tolerance and withdrawal reactions often associated with substance use disorder (APA, 2013).

The explanations proposed for gambling disorder often parallel those for substance use disorders. Some studies suggest, for example, that people with gambling disorder may: (1) inherit a genetic predisposition to develop the disorder (Vitaro et al., 2014; Jabr, 2013); (2) experience heightened dopamine activity and operation of the brain’s reward center when they gamble (Jabr, 2013); (3) have impulsive, novelty-seeking, and other personality styles that leave them prone to gambling disorder (Leeman et al., 2014); and (4) make repeated and cognitive mistakes such as inaccurate expectations and misinterpretations of their emotions and bodily states (Fortune & Goodie, 2012; Williams et al., 2012). However, the research on these theories has been limited thus far, leaving such explanations tentative for now.

Several of the leading treatments for substance use disorders have been adapted for use with gambling disorder. These treatments include cognitive-behavioral approaches like relapse-prevention training, and biological approaches such as narcotic antagonists (Jabr, 2013; Bosco et al., 2012; Larimer et al., 2012). In addition, the self-help group program Gamblers Anonymous, a network modeled after Alcoholics Anonymous, is available to the many thousands of people with gambling disorder (Marceaux & Melville, 2011). People who attend such groups seem to have a better recovery rate.

Internet Gaming Disorder: Awaiting Official Status

As people increasingly turn to the Internet for activities that used to take place in the “real world”—communicating, networking, shopping, playing games, and participating in a community—a new psychological problem has emerged: an uncontrolable need to be online (Hsu et al., 2014; Young, 2011). This pattern has been called Internet use disorder, Internet addiction, and problematic Internet use, among other names (Acier & Kern, 2011).

For people who have this pattern—at least 1 percent of all people—the Internet has become a black hole. They spend all or most of their waking hours texting, tweeting, networking, gaming, Internet browsing, e-mailing, blogging, visiting virtual worlds, shopping online, or viewing online pornography (Yoo et al., 2014; Young & de Abreu, 2011). Specific symptoms of this pattern parallel those found in substance use disorders and gambling disorder, extending from the loss of outside interests to possible withdrawal reactions when Internet use is not possible (APA, 2013).

Although clinicians, the media, and the public have shown enormous interest in this problem, it is not included as a disorder in DSM-5. Rather, the DSM workgroup has recommended that one version of the pattern, which it calls Internet gaming disorder, receive further study for possible inclusion in future editions (APA, 2013). Time—and research—will tell whether this pattern reaches the status of a formal clinical disorder.

PUTTING IT...together

New Wrinkles to a Familiar Story

In some respects, the story of the misuse of drugs is the same today as in the past. Substance use is still rampant, often creating damaging psychological disorders. New drugs keep emerging, and the public goes through periods of believing, naïvely, that the new drugs are “safe.” Only gradually do people learn that these,
too, pose dangers. And treatments for substance-related disorders continue to have only limited effect.

Yet there are positive new wrinkles in this familiar story. Researchers have begun to develop a clearer understanding of how drugs act on the brain and body. In treatment, self-help groups and rehabilitation programs are flourishing. And preventive education to make people aware of the dangers of drug misuse is also expanding and seems to be having an effect. One reason for these improvements is that investigators and clinicians have stopped working in isolation and are instead looking for intersections between their own work and work from other models. The same kind of integrated efforts that have helped with other psychological disorders are bringing new promise and hope to the study and treatment of substance use disorders.

Perhaps the most important insight to be gained from these integrated efforts is that several of the models were already on the right track. Social pressures, personality characteristics, rewards, and genetic predispositions all seem to play roles in substance use disorders, and in fact to operate together. For example, some people may inherit a malfunction of the biological reward center and so may need special doses of external stimulation—which can be provided by, for example, gambling, intense relationships, an abundance of certain foods, or drugs—to stimulate their reward center. Their pursuit of external rewards may take on the character of an addictive personality. Such people may be especially prone to experimenting with drugs, particularly when their social group makes the drugs available or when they are faced with intense social and personal stress.

Just as each model has identified important factors in the development of substance use disorders, each has made important contributions to treatment. As you have seen, the various forms of treatment seem to work best when they are combined with approaches from the other models, making integrated treatment the most productive approach.

Yet another new wrinkle to the addiction story is that the clinical field has now formally proclaimed that substances are not the only things to which people may develop an addiction. By grouping gambling disorder with the substance use disorders and targeting Internet gaming disorder for possible inclusion in the future, DSM-5 has opened the door for a broader view and perhaps broader treatments of addictive patterns—whether they are induced by substances or by other kinds of experiences.

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**SUMMING UP**

- **SUBSTANCE MISUSE**  The misuse of substances (or drugs) may lead to temporary changes in behavior, emotions, or thoughts; this cluster changes is called *intoxication*. Chronic and excessive use can lead to *substance use disorders*. Many people with such disorders also develop a *tolerance* for the substance in question and/or have unpleasant *withdrawal symptoms* when they abstain from it. pp. 382–383

- **DEPRESSANTS**  Depressants are substances that slow the activity of the central nervous system. Chronic and excessive use of these substances can lead to problems such as *alcohol use disorder*, *sedative-hypnotic use disorder*, or *opioid use disorder*.

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**DSM-5 CONTROVERSY**

Is All Drug Misuse the Same?

DSM-5 has combined two past disorders, *substance abuse* (excessive and chronic reliance on drugs) and *substance dependence* (excessive reliance accompanied by tolerance and withdrawal symptoms) into a single category—*substance use disorder*. Critics worry that clinicians may now fail to recognize and address the different prognoses and treatment needs of people who abuse substances and those who depend on substances.
Alcoholic beverages contain ethyl alcohol, which is carried by the blood to the central nervous system, depressing its function. Intoxication occurs when the concentration of alcohol in the bloodstream reaches 0.09 percent. Among other actions, alcohol increases the activity of the neurotransmitter GABA at key sites in the brain. The sedative-hypnotic drugs, which produce feelings of relaxation and drowsiness, include barbiturates and benzodiazepines. These drugs also increase the activity of GABA. Opioids include opium and drugs derived from it, such as morphine and heroin, as well as laboratory-made opioids. They all reduce tension and pain and cause other reactions. Opioids operate by binding to neurons that ordinarily receive endorphins. pp. 383–392

STIMULANTS Stimulants, including cocaine, amphetamines, caffeine, and nicotine, are substances that increase the activity of the central nervous system. Abnormal use of cocaine or amphetamines can lead to stimulant use disorder. Stimulants produce their effects by increasing the activity of dopamine, norepinephrine, and serotonin in the brain. pp. 392–398

HALLUCINOGENS Hallucinogens, such as LSD, are substances that cause powerful changes primarily in sensory perception. People's perceptions are intensified and they may have illusions and hallucinations. LSD apparently causes such effects by disturbing the release of the neurotransmitter serotonin. pp. 398–400

CANNABIS The main ingredient of Cannabis sativa, a hemp plant, is tetrahydrocannabinol (THC). Marijuana, the most popular form of cannabis, is more powerful today than it was in years past. It can cause intoxication, and regular use can lead to cannabis use disorder. pp. 401–404

COMBINATIONS OF SUBSTANCES Many people take more than one drug at a time, and the drugs interact. The use of two or more drugs at the same time—polysubstance use—has become increasingly common. pp. 404–405

EXPLANATIONS FOR SUBSTANCE USE DISORDERS Several explanations for substance use disorders have been put forward. Together they are beginning to shed light on the disorders. According to sociocultural theorists, the people most likely to develop these disorders are those living in socioeconomic conditions that generate stress or whose families value or tolerate drug use. In the psychodynamic view, people who develop substance use disorders have excessive dependency needs traceable to the early stages of life. Some psychodynamic theorists also believe that certain people have a substance abuse personality that makes them prone to drug use. In the leading behavioral view, drug use is seen as being reinforced initially because it reduces tensions and raises spirits. According to cognitive theorists, such reductions may also lead to an expectancy that drugs will be comforting and helpful.

The biological explanations are supported by twin, adoptee, genetic linkage, and molecular biology studies, suggesting that people may inherit a predisposition to the disorders. Researchers have also learned that drug tolerance and withdrawal symptoms may be caused by cutbacks in the brain's production of particular neurotransmitters during excessive and chronic drug use. Biological studies suggest that many, perhaps all, drugs may ultimately lead to increased dopamine activity in the brain's reward center. pp. 405–410

TREATMENTS FOR SUBSTANCE USE DISORDERS Treatments for substance use disorders vary widely. Usually several approaches are combined. Psychodynamic therapies are used to try to help clients become aware of
and correct the underlying needs and conflicts that may have led to their use of drugs. A common behavioral technique is aversion therapy, in which an unpleasant stimulus is paired with the drug that the person is abusing. Cognitive and behavioral techniques have been combined in such forms as relapse-prevention training. Biological treatments include detoxification, antagonist drugs, and drug maintenance therapy. Sociocultural treatments address substance use disorders in a social context by means of self-help groups (e.g., Alcoholics Anonymous), culture- and gender-sensitive treatments, and community prevention programs. pp. 410–419

- **OTHER ADDICTIVE DISORDERS** DSM-5 groups gambling disorder alongside the substance use disorders as an addictive disorder. The explanations for this disorder, which are parallel to those for substance use disorders, include genetic factors, dopamine activity, personality styles, and cognitive factors. Treatments for gambling disorder include cognitive-behavioral approaches, narcotic antagonists, and self-help groups. The DSM-5 task force recommended that another addictive pattern, Internet gaming disorder, receive further study for possible inclusion in future DSM revisions. pp. 419–420

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www.macmillanhighered.com/launchpad/comerabpsych9e to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
Disorders of Sex and Gender

Robert, a 57-year-old man, came to sex therapy with his wife because of his inability to get erections. He had not had a problem with erections until six months earlier, when they attempted to have sex after an evening out, during which he had had several drinks. They attributed his failure to get an erection to his being “a little drunk,” but he found himself worrying over the next few days that he was perhaps becoming impotent. When they next attempted intercourse, he found himself unable to get involved in what they were doing because he was so intent on watching himself to see if he would get an erection. Once again he did not, and they were both very upset. His failure to get an erection continued over the next few months. Robert’s wife was very upset and frustrated, accusing him of having an affair, or of no longer finding her attractive. Robert wondered if he was getting too old, or if his medication for high blood pressure, which he had been taking for about a year, might be interfering with erections. When they came for sex therapy, they had not attempted any sexual activity for over two months.

Sexual behavior is a major focus of both our private thoughts and public discussions. Sexual feelings are a crucial part of our development and daily functioning, sexual activity is tied to the satisfaction of our basic needs, and sexual performance is linked to our self-esteem. Most people are fascinated by the abnormal sexual behavior of others and worry about the normality of their own sexuality.

Experts recognize two general categories of sexual disorders: sexual dysfunctions and paraphilic disorders. People with sexual dysfunctions have problems with their sexual responses. Robert, for example, had a dysfunction known as erectile disorder, a repeated failure to attain or maintain an erection during sexual activity. People with paraphilic disorders have repeated and intense sexual urges or fantasies in response to objects or situations that society deems inappropriate, and they may behave inappropriately as well. They may be aroused by the thought of sexual activity with a child, for example, or of exposing their genitals to strangers, and they may act on those urges. In addition to the sexual disorders, DSM-5 includes a diagnosis called gender dysphoria, a pattern in which people persistently feel that they have been born to the wrong sex, identify with the other gender, and experience significant distress or impairment as a consequence of these feelings.

As you will see throughout this chapter, relatively little is known about racial and other cultural differences in sexuality. This is true for normal sexual patterns, sexual dysfunctions, and paraphilic disorders alike. Although different cultural groups have for years been labeled hypersexual, “hot blooded,” exotic, passionate, submissive, and the like, such incorrect stereotypes have grown strictly from ignorance or prejudice, not from objective observations or research (McGoldrick et al., 2007). In fact, sex therapists and sex researchers have only recently begun to attend systematically to the importance of culture and race.
Sexual Dysfunctions

Sexual dysfunctions, disorders in which people cannot respond normally in key areas of sexual functioning, make it difficult or impossible to enjoy sexual intercourse. Studies suggest that as many as 30 percent of men and 45 percent of women around the world suffer from such a dysfunction during their lives (Lewis et al., 2010). Sexual dysfunctions are typically very distressing, and they often lead to sexual frustration, guilt, loss of self-esteem, and interpersonal problems (McCarthy & McCarthy, 2012). Often these dysfunctions are interrelated; many patients with one dysfunction have another as well. Sexual dysfunctioning is described here for heterosexual couples, the majority of couples seen in therapy. Gay and lesbian couples have the same dysfunctions, however, and therapists use the same basic techniques to treat them.

Disorders of Desire

The desire phase of the sexual response cycle consists of an interest in or urge to have sex, sexual attraction to others, and for many people, sexual fantasies. Two dysfunctions affect the desire phase—male hypoactive sexual desire disorder and female sexual interest/arousal disorder. The latter disorder actually cuts across both the desire and excitement phases of the sexual response cycle. It is considered a single disorder in DSM-5 because, according to research, desire and arousal overlap particularly highly for women, and many women express difficulty distinguishing feelings of desire from those of arousal (APA, 2013).

A number of people have normal sexual interest but choose, as a matter of lifestyle rather than sexual desire, to avoid engaging in sexual relations (see InfoCentral on the next page). These people are not diagnosed as having one of the sexual desire disorders.
Sexual dysfunctions are different from the usual patterns of sexual functioning. But in the sexual realm, what is “the usual?” Studies conducted over the past two decades have provided a wealth of enlightening information about sexual behavior in the “normal” populations of North America. As you might expect, sexual behavior often differs by age and by gender.

<table>
<thead>
<tr>
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<th>16 YEARS OLD</th>
<th>19 YEARS OLD</th>
<th>22 YEARS OLD</th>
<th>35 YEARS OLD</th>
<th>45 YEARS OLD</th>
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<td>63%</td>
<td>80%</td>
<td>74%</td>
<td>70%</td>
<td>54%</td>
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<tr>
<td>females</td>
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<td>69%</td>
<td>79%</td>
<td>68%</td>
<td>63%</td>
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**Adolescence (Ages 11–19)**

Most sexually experienced teens engage in only one sexual relationship at a time.

**Early Adulthood (Ages 20–34)**

One survey finds that 36% of people under age 35 go on FACEBOOK after having sex.

**Middle Adulthood (Ages 35–59)**

From the ages of 25 to 59, sexual relationships last longer and are more monogamous.

**Old Age (Age 60 and Over)**

The decline in men’s sexual activity usually comes gradually as they advance in age and their health fails. The majority of very elderly people continue to have sexual fantasies.

Sexual activity is more likely to drop off sharply for elderly women, commonly because of the death or illness of a partner.

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O'Sullivan et al., 2014; Herbenick et al., 2013, 2010; Chandra et al., 2011; Peterson & Hyde, 2011; Lindau et al., 2007; Laumann et al., 2005, 1999, 1994; Janus & Janus, 1993

One survey finds that 36% of people under age 35 go on FACEBOOK after having sex.
Men with **male hypoactive sexual desire disorder** persistently lack or have reduced interest in sex and engage in little sexual activity (see Table 13-1). Nevertheless, when they do have sex, their physical responses may be normal and they may enjoy the experience. While most cultures portray men as wanting all the sex they can get, as many as 18 percent of men worldwide have this disorder, and the number seeking therapy has increased during the past decade (Martin et al., 2014; Lewis et al., 2010).

Women with **female sexual interest/arousal disorder** also lack normal interest in sex and rarely initiate sexual activity (see Table 13-1 again). In addition, many such women feel little excitement during sexual activity, are unaroused by erotic cues, and have few genital or nongenital sensations during sexual activity (APA, 2013). As many as 38 percent of women worldwide have reduced sexual interest and arousal (Christensen et al., 2011; Lewis et al., 2010; Laumann et al., 2005, 1999, 1994). It is important to note that many sex researchers and therapists believe it is inaccurate to combine desire and excitement symptoms into a single female disorder (Sungur & Gündüz, 2014). They would prefer that DSM-5 continue the past DSM tradition of listing two separate dysfunctions—**female hypoactive sexual desire disorder** and **female sexual arousal disorder**.

A person’s sex drive is determined by a combination of biological, psychological, and sociocultural factors, any of which may reduce sexual desire (Berry & Berry, 2013; Carvalho & Nobre, 2011). Most cases of low sexual desire are caused primarily by sociocultural and psychological factors, but biological conditions can also lower sex drive significantly.

**Biological Causes of Low Sexual Desire** A number of hormones interact to help produce sexual desire and behavior (see Figure 13-2 on the next page), and abnormalities in their activity can lower a person’s sex drive (Giraldi et al., 2013; Laan et al., 2013; Rubio-Aurioles & Bivalacqua, 2013). In both men and women, a high level of the hormone **prolactin**, a low level of the male sex hormone **testosterone**, and either a high or low level of the female sex hormone **estrogen** can lead to low sex drive. Low sex drive has been linked to the high levels of estrogen contained in some birth control pills, for example. Conversely, it has also been tied to the low level of estrogen found in many postmenopausal women or women who have recently given birth.

Recent investigations also have suggested that low sexual desire may be linked to excessive activity of the neurotransmitters **serotonin** and **dopamine** (Chan et al., 2011). In one study, for example, female rats were administered **apomorphine**, a drug known to increase dopamine activity in certain areas of the brain (Snoeren et al., 2011). These rats then avoided sexual contact with male rats.
Clinical practice and research have further indicated that sex drive can be lowered by certain pain medications, psychotropic drugs, and illegal drugs such as cocaine, marijuana, amphetamines, and heroin (Glina, Sharlip, & Hellstrom, 2013; Montejo et al., 2011). Low levels of alcohol may enhance the sex drive by lowering a person’s inhibitions, but high levels may reduce it (George et al., 2011; Hart et al., 2010).

Long-term physical illness can also lower a person’s sex drive (Rubio-Aurioles & Bivalacqua, 2013; Berry & Berry, 2013). The reduced drive may be a direct result of the illness or an indirect result because of stress, pain, or depression brought on by the illness.

**Psychological Causes of Low Sexual Desire** A general increase in anxiety, depression, or anger may reduce sexual desire in both men and women (Rubio-Aurioles & Bivalacqua, 2013; Štulhofer, Træen, & Carvalfeira, 2013). Frequently, as cognitive theorists have noted, people with low sexual desire have particular attitudes, fears, or memories that contribute to their dysfunction, such as a belief that sex is immoral or dangerous (Giraldi et al., 2013; McCarthy & McCarthy, 2012; Wincze et al., 2008). Other people are so afraid of losing control over their sexual urges that they try to resist them completely. And still others fear pregnancy.

Certain psychological disorders may also contribute to low sexual desire. Even a mild level of depression can interfere with sexual desire, and some people with obsessive-compulsive symptoms find contact with another person’s body fluids and odors to be highly unpleasant (Rubio-Aurioles & Bivalacqua, 2013; Lai, 2011; Lourenço et al., 2011).

**Sociocultural Causes of Low Sexual Desire** The attitudes, fears, and psychological disorders that contribute to low sexual desire occur within a social context, and thus certain sociocultural factors have also been linked to disorders of sexual desire. Many people who have low sexual desire are feeling situational pressures—divorce, a death in the family, job stress, infertility difficulties, having a baby (Giraldi et al., 2013; Hamilton & Meston, 2013). One study found, for example, that men who had experienced more job difficulties over the past year were almost twice as likely as men who were content at work to have low sexual desire or other sexual dysfunctions (Štulhofer et al., 2013). Other people may be having problems in their relationships (Giraldi et al., 2013; Rubio-Aurioles & Bivalacqua, 2013; Brenot, 2011). People who are in an unhappy relationship, have lost affection...
for their partner, or feel powerless and dominated by their partner can lose interest in sex. Even in basically happy relationships, if one partner is a very unskilled, unenthusiastic lover, the other can begin to lose interest in sex (Jiann, Su, & Tsai, 2013). And sometimes partners differ in their needs for closeness. The one who needs more personal space may develop low sexual desire as a way of keeping distance.

Cultural standards can also set the stage for low sexual desire. Some men adopt our culture’s double standard and thus cannot feel sexual desire for a woman they love and respect (Maurice, 2007). More generally, because our society equates sexual attractiveness with youthfulness, many middle-aged and older men and women lose interest in sex as their self-image or their attraction to their partner diminishes with age (Leiblum, 2010).

The trauma of sexual molestation or assault is especially likely to produce the fears, attitudes, and memories found in disorders of sexual desire. Some survivors of sexual abuse may feel repelled by sex, sometimes for years, even decades (Giraldi et al., 2013; Brotto et al., 2011; Zwickl & Merriman, 2011). In some cases, survivors may have vivid flashbacks of the assault during adult consensual sexual activity.

Disorders of Excitement

The excitement phase of the sexual response cycle is marked by changes in the pelvic region, general physical arousal, and increases in heart rate, muscle tension, blood pressure, and rate of breathing. In men, blood pools in the pelvis and leads to erection of the penis; in women, this phase produces swelling of the clitoris and labia, as well as lubrication of the vagina. As you read earlier, female sexual interest/arousal disorder may include dysfunction during the excitement phase. In addition, a male disorder—erectile disorder—involves dysfunction during the excitement phase only.

Erectile Disorder

Men with erectile disorder persistently fail to attain or maintain an erection during sexual activity (see Table 13-2). This problem occurs in as much as 25 percent of the male population, including Robert, the man whose difficulties opened this chapter (Martin et al., 2014; Christensen et al., 2011; Lewis et al., 2010). Carlos Domera also has erectile disorder:

Carlos Domera is a 30-year-old dress manufacturer who came to the United States from Argentina at age 22. He is married to Phyllis, also age 30. They have no children. Mr. Domera’s problem was that he had been unable to have sexual intercourse for over a year due to his inability to achieve or maintain an erection. He had avoided all sexual contact with his wife for the prior five months, except for two brief attempts at lovemaking which ended when he failed to maintain his erection.

The couple separated a month ago by mutual agreement due to the tension that surrounded their sexual problem and their inability to feel comfortable with each other. Both professed love and concern for the other, but had serious doubts regarding their ability to resolve the sexual problem. . . .

[Carlos] conformed to the stereotype of the “macho Latin lover,” believing that he “should always have erections easily and be able to make love at any time.” Since he couldn’t “perform” sexually, he felt humiliated and inadequate, and he dealt with this by avoiding not only sex, but any expression of affection for his wife.

[Phyllis] felt “he is not trying; perhaps he doesn’t love me, and I can’t live with no sex, no affection, and his bad moods.” She had requested the separation temporarily, and he readily agreed. However, they had recently been seeing each other twice a week. . . .

| Table: 13-2 |
| Dx Checklist |
| Erectile Disorder |
| 1. For at least 6 months, individual usually finds it very difficult to obtain an erection, maintain an erection, and/or achieve past levels of erectile rigidity during sex. |
| 2. Individual experiences significant distress. |

(Information from: APA, 2013.)
During the evaluation, he reported that the onset of his erectile difficulties was concurrent with a tense period in his business. After several “failures” to complete intercourse, he concluded he was “useless as a husband” and therefore a “total failure.” The anxiety of attempting lovemaking was too much for him to deal with. He reluctantly admitted that he was occasionally able to masturbate alone to a full, firm erection and reach a satisfying orgasm. However, he felt ashamed and guilty about this, from both childhood masturbatory guilt and a feeling that he was “cheating” his wife. It was also noted that he had occasional firm erections upon awakening in the morning. Other than the antidepressant, the patient was taking no drugs, and he was not using much alcohol. There was no evidence of physical illness.

(Spitzer et al., 1983, pp. 105–106)

Unlike Carlos, most men with an erectile disorder are over the age of 50, largely because so many cases are associated with ailments or diseases of older adults (Cameron et al., 2005). Around 7 percent of men who are under 40 years old also have the disorder; that number increases to as many as 40 percent of men in their sixties and 75 percent of those in their seventies and eighties (Lewis et al., 2010; Rosen, 2007). Moreover, according to surveys, half of all adult men experience erectile difficulty during intercourse at least some of the time. Most cases of erectile disorder result from an interaction of biological, psychological, and sociocultural processes (Berry & Berry, 2013; Rowland, 2012; Carvalho & Nobre, 2011).

**BIOLOGICAL CAUSES** The same hormonal imbalances that can cause male hypoactive sexual desire disorder can also produce erectile disorder (Glina et al., 2013; Hyde, 2005). More commonly, however, vascular problems—problems with the body’s blood vessels—are involved (Lewis et al., 2010; Wincze et al., 2008; Rosen, 2007). An erection occurs when the chambers in the penis fill with blood, so any condition that reduces blood flow into the penis, such as heart disease or clogging of the arteries, may lead to erectile disorder (Glina et al., 2013; Meuleman, 2011). It can also be caused by damage to the nervous system as a result of diabetes, spinal cord injuries, multiple sclerosis, kidney failure, or treatment by dialysis (Berry & Berry, 2013; Blackmore et al., 2011). In addition, as is the case with male hypoactive sexual desire disorder, the use of certain medications and various forms of substance abuse, from alcohol abuse to cigarette smoking, may interfere with erections (Glina et al., 2013; Herrick et al., 2011; Panjari, Bell, & Davis, 2011).

Medical procedures, including ultrasound recordings and blood tests, have been developed for diagnosing biological causes of erectile disorder. Measuring **nocturnal penile tumescence (NPT)**, or erections during sleep, is particularly useful in assessing whether physical factors are responsible. Men typically have erections during **rapid eye movement (REM)** sleep, the phase of sleep in which dreaming takes place. A healthy man is likely to have two to five REM periods each night, and several penile erections as well (see Figure 13-3). Abnormal or absent nightly erections usually (but not always) indicate some physical basis for erectile

**excitement phase** The phase of the sexual response cycle marked by changes in the pelvic region, general physical arousal, and increases in heart rate, muscle tension, blood pressure, and rate of breathing.

**erectile disorder** A dysfunction in which a man repeatedly fails to attain or maintain an erection during sexual activity.

**nocturnal penile tumescence (NPT)** Erection during sleep.

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**Biological causes**

- Hormonal imbalances: Can cause male hypoactive sexual desire disorder and erectile disorder.
- Vascular problems: Involve the body’s blood vessels.
- Heart disease or clogging of arteries may lead to erectile disorder.
- Nervous system damage due to diabetes, spinal cord injuries, multiple sclerosis, kidney failure, or dialysis.
- Substance abuse: Alcohol and cigarette smoking may interfere with erections.

**Medical procedures**

- Ultrasound recordings and blood tests for diagnosing biological causes of erectile disorder.
- **Nocturnal penile tumescence (NPT)**: Useful in assessing physical factors.
- REM sleep and its role in erections.

**Figure 13-3**

Measurements of erections during sleep. Research participant A, a man without erectile problems, has normal erections during REM sleep. Participant B has erectile problems that seem to be at least partly psychogenic—otherwise he would not have any erections during REM sleep. Participant C’s erectile disorder is related to organic problems, an interpretation supported by his lack of erections during REM sleep. (This material was published in *Human Sexuality and Its Problems*, ISBN 978-0443034558. Bancroft, J.; 1989 © Elsevier.)
Psychological or organic?
The RigiScan is a device that measures a male patient’s erections during sleep. It consists of a computer and two bands that are worn around the penis. If the computer readout indicates that the bands have expanded periodically throughout the night, it is concluded that the man has had normal erections during REM sleep and that his erectile failures during intercourse are probably caused by psychological factors.

Photo courtesy of Timm Medical Technologies, Eden Prairie, Minnesota

Failure. As a rough screening device, a patient may be instructed to fasten a simple “snap gauge” band around his penis before going to sleep and then check it the next morning. A broken band indicates that he has had an erection during the night. An unbroken band indicates that he did not have nighttime erections and suggests that his general erectile problem may have a physical basis. A newer version of this device further attaches the band to a computer, which provides precise measurements of erections throughout the night (Wincze et al., 2008). Such assessment devices are less likely to be used in clinical practice today than in past years. As you’ll see later in the chapter, Viagra and other drugs for erectile disorder are typically given to patients without much formal evaluation of their problem (Rosen, 2007).

Psychological Causes
Any of the psychological causes of male hypoactive sexual desire disorder can also interfere with arousal and lead to erectile disorder (Rowland, Georgoff, & Burnett, 2011). As many as 90 percent of all men with severe depression, for example, experience some degree of erectile dysfunction (Montejo et al., 2011; Stevenson & Elliott, 2007).

One well-supported psychological explanation for erectile disorder is the cognitive-behavioral theory developed by William Masters and Virginia Johnson (1970). The explanation emphasizes performance anxiety and the spectator role. Once a man begins to have erectile problems, for whatever reason, he becomes fearful about failing to have an erection and worries during each sexual encounter (Carvalho & Nobre, 2011). Instead of relaxing and enjoying the sensations of sexual pleasure, he remains distanced from the activity, watching himself and focusing on the goal of reaching erection. Instead of being an aroused participant, he becomes a judge and spectator. Whatever the initial reason for the erectile dysfunction, the resulting spectator role becomes the reason for the ongoing problem. In this vicious cycle, the original cause of the erectile failure becomes less important than fear of failure.

Sociocultural Causes
Each of the sociocultural factors that contribute to male hypoactive sexual desire disorder has also been tied to erectile disorder. Men who have lost their jobs and are under financial stress, for example, are more likely to develop erectile difficulties than other men (Štulhofer et al., 2013; Morokoff & Gilliland, 1993). Marital stress, too, has been tied to this dysfunction (Brenot, 2011; Wincze et al., 2008). Two relationship patterns in particular may contribute to it (Rosen, 2007; LoPiccolo, 2004, 1991). In one, a wife provides too little physical stimulation for her aging husband, who, because of normal aging changes, now requires more intense, direct, and lengthy physical stimulation of the penis in order to have an erection. In the second relationship pattern, a couple believes that only intercourse can give the wife an orgasm. This idea increases the pressure on the man to have an erection and makes him more vulnerable to erectile dysfunction. If the wife reaches orgasm manually or orally during their sexual encounter, his pressure to perform is reduced.
Disorders of Orgasm

During the orgasm phase of the sexual response cycle, a person’s sexual pleasure peaks and sexual tension is released as the muscles in the pelvic region contract, or draw together, rhythmically (see Figure 13-4 on the next page). The man’s semen is ejaculated, and the outer third of the woman’s vaginal wall contracts. Dysfunctions of this phase of the sexual response cycle are early ejaculation and delayed ejaculation in men and female orgasmic disorder in women.

Premature Ejaculation

Eduardo is typical of many men in his experience of premature ejaculation:

Eduardo, a 20-year-old student, sought treatment after his girlfriend ended their relationship because his premature ejaculation left her sexually frustrated. Eduardo had had only one previous sexual relationship, during his senior year in high school. With two friends he would drive to a neighboring town and find a certain prostitute. After picking her up, they would drive to a deserted area and take turns having sex with her, while the others waited outside the car. Both the prostitute and his friends urged him to hurry up because they feared discovery by the police, and besides, in the winter it was cold. When Eduardo began his sexual relationship with his girlfriend, his entire sexual history consisted of this rapid intercourse, with virtually no foreplay. He found caressing his girlfriend’s breasts and genitals and her touching of his penis to be so arousing that he sometimes ejaculated before complete entry of the penis, or after at most only a minute or so of intercourse.

A man suffering from premature ejaculation (also called early, or rapid, ejaculation) persistently reaches orgasm and ejaculates within 1 minute of beginning sexual activity with a partner and before he wishes to (see Table 13-3). As many as 30 percent of men worldwide ejaculate early at some time (Lewis et al., 2010; Jannini & Lenzi, 2005; Laumann et al., 2005, 1999, 1994). The typical duration of intercourse in our society has increased over the past several decades, which has caused more distress among men who ejaculate prematurely. Although many young men certainly contend with the dysfunction, research suggests that men of any age may suffer from it (Rowland, 2012; Althof, 2007).

Psychological, particularly behavioral, explanations of premature ejaculation have received more research support than other kinds of explanations. The dysfunction is common, for example, among young, sexually inexperienced men such as Eduardo, who simply have not learned to slow down, control their arousal, and extend the pleasurable process of making love (Althof, 2007). In fact, young men often ejaculate prematurely during their first sexual encounter. With continued sexual experience, most men acquire more control over their sexual responses. Men of any age who have sex only occasionally are also prone to ejaculate early.

Clinicians have also suggested that premature ejaculation may be related to anxiety, hurried masturbation experiences during adolescence (in fear of being “caught” by parents), or poor recognition of one’s own sexual arousal (Althof, 2007; Westheimer & Lopater, 2005). However, these theories have only sometimes received clear research support.

There is a growing belief among many clinical theorists that biological factors may also play a key role in many cases of premature ejaculation. Three biological theories have emerged from the limited

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**Dx Checklist**

**Premature Ejaculation**

1. For at least 6 months, individual usually ejaculates within 1 minute of beginning sex with a partner and earlier than he wants to.

2. Individual experiences significant distress.

**Delayed Ejaculation**

1. For at least 6 months, individual usually displays a significant delay, infrequency, or absence of ejaculation during sexual activity with a partner.

2. Individual experiences significant distress.

**Female Orgasmic Disorder**

1. For at least 6 months, individual usually displays a significant delay, infrequency, or absence of orgasm, and/or is unable to achieve past orgasmic intensity.

2. Individual experiences significant distress.

(Information from: APA, 2013.)
investigations done so far (Althof, 2007; Mirone et al., 2001; Waldinger et al., 1998). One theory states that some men are born with a genetic predisposition to develop this dysfunction. Indeed, one study found that 91 percent of a small sample of men suffering from early ejaculation had first-degree relatives who also had the dysfunction. A second theory, based on animal studies, argues that the brains of men who ejaculate prematurely contain certain serotonin receptors that are overactive and others that are underactive. A third explanation holds that men with this dysfunction have greater sensitivity or nerve conduction in the area of their penis, a notion that has received inconsistent research support thus far.

Delayed Ejaculation A man with delayed ejaculation (previously called male orgasmic disorder or inhibited male orgasm) persistently is unable to ejaculate or has very delayed ejaculations during sexual activity with a partner (see Table 13–3 again). Around 10 percent of men worldwide have this disorder (Lewis et al., 2010; Hartmann & Waldinger, 2007; Laumann et al., 2005, 1999). It is typically a source of great frustration and upset, as in the case of John:

John, a 38-year-old sales representative, had been married for 9 years. At the insistence of his 32-year-old wife, the couple sought counseling for their sexual problem—his inability to ejaculate during intercourse. During the early years of the marriage, his wife had experienced difficulty reaching orgasm until he learned to delay his ejaculation for a long period of time. To do this, he used mental distraction techniques and regularly smoked marijuana before making love. Initially, John felt very satisfied that he could make love for longer and longer periods of time without ejaculation and regarded his ability as a sign of masculinity.

About 3 years prior to seeking counseling, after the birth of their only child, John found that he was losing his erection before he was able to ejaculate. His wife suggested different intercourse positions, but the harder he tried, the more difficulty he had in reaching orgasm. Because of his frustration, the couple began to avoid sex altogether. John experienced increasing performance anxiety with each successive failure, and an increasing sense of helplessness in the face of his problem.

(Rosen & Rosen, 1981, pp. 317–318)

figure 13-4
Normal male sexual anatomy Changes in the male anatomy occur during the different phases of the sexual response cycle. (Information from: Hyde, 1990, p. 199.)
A low testosterone level, certain neurological diseases, and some head or spinal cord injuries can interfere with ejaculation (Lewis et al., 2010; Stevenson & Elliott, 2007; McKenna, 2001). Substances that slow down the sympathetic nervous system (such as alcohol, some medications for high blood pressure, and certain psychotropic medications) can also affect ejaculation (Herrick et al., 2011). For example, certain serotonin-enhancing antidepressant drugs appear to interfere with ejaculation in at least 30 percent of men who take them (Glina et al., 2013; Montejo et al., 2011; Ashton, 2007).

A leading psychological cause of delayed ejaculation appears to be performance anxiety and the spectator role, the cognitive-behavioral factors also involved in erectile disorder (Carvalho & Nobre, 2011; Kashdan et al., 2011). Once a man begins to focus on reaching orgasm, he may stop being an aroused participant in his sexual activity and instead become an unaroused, self-critical, and fearful observer (Rowland, 2012; Hartmann & Waldinger, 2007; Wiederman, 2001). Another psychological cause of delayed ejaculation may be past masturbation habits. If, for example, a man has masturbated all his life by rubbing his penis against sheets, pillows, or other such objects, he may have difficulty reaching orgasm in the absence of the sensations tied to those objects (Wincze et al., 2008). Finally, delayed ejaculation may develop out of male hypoactive sexual desire disorder (Apfelbaum, 2000). A man who engages in sex largely because of pressure from his partner, without any real desire for it, simply may not get aroused enough to ejaculate.

**Female Orgasmic Disorder** Janel and Isaac, married for 3 years, went for sex therapy because of her lack of orgasm.

Janel had never had an orgasm in any way, but because of Isaac’s concern, she had been faking orgasm during intercourse until recently. Finally she told him the truth, and they sought therapy together. Janel had been raised by a strictly religious family. She could not recall ever seeing her parents kiss or show physical affection for each other. She was severely punished on one occasion when her mother found her looking at her own genitals, at about age 7. Janel received no sex education from her parents, and when she began to menstruate, her mother told her only that this meant that she could become pregnant, so she mustn’t ever kiss a boy or let a boy touch her. Her mother restricted her dating severely, with repeated warnings that “boys only want one thing.” While her parents were rather critical and demanding of her (asking her why she got one B among otherwise straight A’s on her report card, for example), they were loving parents and their approval was very important to her.

Women with **female orgasmic disorder** persistently fail to reach orgasm, have very low intensity orgasms, or have a very delayed orgasm (see Table 13-3 again). As many as 25 percent of women apparently have this problem to some degree—including more than a third of postmenopausal women (Lewis et al., 2010; Heiman, 2007, 2002). Studies indicate that 10 percent or more of women have never had an orgasm, either alone or during intercourse, and at least another 9 percent rarely have orgasms (Bancroft et al., 2003). At the same time, half of all women experience orgasm in intercourse at least fairly regularly (LoPiccolo & Stock, 1987). Women who are more sexually assertive...
and more comfortable with masturbation tend to have orgasms more regularly (Carrobles et al., 2011; Hurlbert, 1991; Kelly et al., 1990). Female orgasmic disorder appears to be more common among single women than among women who are married or living with someone (Lewis et al., 2010; Laumann et al., 2005, 1999, 1994). In one study, when participants with female orgasmic disorder were asked to pick a word that best describes their feelings about it, two-thirds of them chose “frustration” (Kingsberg et al., 2013).

Most clinicians agree that orgasm during intercourse is not mandatory for normal sexual functioning (Meana, 2012; Wincze et al., 2008). Many women instead reach orgasm with their partners by direct stimulation of the clitoris. Although early psychoanalytic theory considered a lack of orgasm during intercourse to be pathological, evidence suggests that women who rely on stimulation of the clitoris for orgasm are entirely normal and healthy (Laan, Rellini, & Barnes, 2013; Heiman, 2007; LoPiccolo, 2002, 1995).

Biological, psychological, and sociocultural factors may combine to produce female orgasmic disorder (Berry & Berry, 2013; Jiam, Su, & Tsai, 2013; Heiman, 2007). Because arousal plays a key role in orgasms, arousal difficulties often are featured prominently in explanations of female orgasmic disorder (Laan et al., 2013).

**BIOLOGICAL CAUSES** A variety of physiological conditions can affect a woman’s orgasm. Diabetes can damage the nervous system in ways that interfere with arousal, lubrication of the vagina, and orgasm. Lack of orgasm has sometimes been linked to multiple sclerosis and other neurological diseases, to the same drugs and medications that may interfere with ejaculation in men, and to changes, often postmenopausal, in skin sensitivity and structure of the clitoris, vaginal walls, or the labia—the folds of skin on each side of the vagina (Blackmore et al., 2011; Lombardi et al., 2011).

**PSYCHOLOGICAL CAUSES** The psychological causes of female sexual interest/arousal disorder, including depression, may also lead to female orgasmic disorder (Laan et al., 2013; Kashdan et al., 2011; Kim et al., 2011). In addition, as both psychodynamic and cognitive theorists might predict, memories of childhood traumas and relationships have sometimes been associated with orgasm problems (Laan et al., 2013). In one large study, memories of an unhappy childhood or loss of a parent during childhood were tied to lack of orgasm in adulthood (Rabo & Raboch, 1992). In other studies, childhood memories of a dependable father, a positive relationship with one’s mother, affection between the parents, the mother’s positive personality, and the mother’s expression of positive emotions were all predictors of positive orgasm outcomes (Heiman, 2007; Heiman et al., 1986).

**SOCIOCULTURAL CAUSES** For years many clinicians have believed that female orgasmic problems may result from society’s recurrent message to women that they should repress and deny their sexuality, a message that has often led to “less permissive” sexual attitudes and behavior among women than among men. In fact, many women with both arousal and orgasmic difficulties report that they had an overly strict religious upbringing, were punished for childhood masturbation, received no preparation for the onset of menstruation, were restricted in their dating as teenagers, and were told that “nice girls don’t” (Laan et al., 2013; LoPiccolo & Van Male, 2000).

A sexually restrictive history, however, is just as common among women who function well during sexual activity (LoPiccolo, 2002, 1997). In addition, cultural messages about female sexuality have been more positive in recent years, while the rate of arousal and

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**genito-pelvic pain/penetration disorder** A sexual dysfunction characterized by significant physical discomfort during intercourse.
Disorders of Sex and Gender

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orgasmic problems remains the same for women. Why, then, do some women and not others develop such problems? Researchers suggest that unusually stressful events, traumas, or relationships may help produce the fears, memories, and attitudes that often characterize these sexual problems (Meana, 2012; Westheimer & Lopater, 2005). For example, many women molested as children or raped as adults have female orgasmic disorder (Hall, 2007; Heiman, 2007).

Research has also related orgasmic behavior to certain qualities in a woman’s intimate relationships (Laan et al., 2013; Brenot, 2011; Heiman et al., 1986). Studies have found, for example, that the likelihood of reaching orgasm may be tied to how much emotional involvement a woman had during her first experience of intercourse and how long that relationship lasted, the pleasure the woman felt during the experience, her current attraction to her partner’s body, and her marital happiness. Interestingly, the same studies have found that orgasmic women more often have erotic fantasies during sex with their current partner than do nonorgasmic women.

Disorders of Sexual Pain

Certain sexual dysfunctions are characterized by enormous physical discomfort during intercourse, a difficulty that does not fit neatly into a specific part of the sexual response cycle. Women have such dysfunctions, collectively called genito-pelvic pain/penetration disorder, much more often than men do (APA, 2013).

For some women with genito-pelvic pain/penetration disorder the muscles around the outer third of the vagina involuntarily contract, preventing entry of the penis (see Table 13-4). This problem, known in medical circles as vaginismus, can prevent a couple from ever having intercourse. The problem has received relatively little research, but estimates are that fewer than 1 percent of all women have vaginismus (Christensen et al., 2011; Antony & Barlow, 2010, 2004). A number of women with vaginismus enjoy sex greatly, have a strong sex drive, and reach orgasm with stimulation of the clitoris (Cherner & Reissing, 2013; Sánchez Bravo et al., 2010). They just fear the discomfort of penetration of the vagina.

Most clinicians agree with the cognitive-behavioral position that this form of genito-pelvic pain/penetration disorder is usually a learned fear response, set off by a woman’s expectation that intercourse will be painful and damaging (Cherner & Reissing, 2013; Fugl-Meyer et al., 2013). A variety of factors apparently can set the stage for this fear, including anxiety and ignorance about intercourse, exaggerated stories about how painful and bloody the first occasion of intercourse is for women, trauma caused by an unskilled lover who forces his penis into the vagina before the woman is aroused and lubricated, and the trauma of childhood sexual abuse or adult rape (Jiann, Su, & Tsai, 2013; Fugl-Meyer et al., 2013; Binik, 2010).

Alternatively, women may have this form of genito-pelvic pain/penetration disorder because of an infection of the vagina or urinary tract, a gynecological disease such as herpes simplex, or the physical effects of menopause. In such cases, the dysfunction can be overcome only if the women receive medical treatment for these conditions.

Other women with genito-pelvic pain/penetration disorder do not have involuntary contractions of their vaginal muscles, but they do experience severe vaginal or pelvic pain during sexual intercourse, a pattern known medically as dyspareunia (from Greek words meaning “painful mating”). Surveys suggest that more than 14 percent of women suffer from this problem to some degree (Antony & Barlow, 2010, 2004; Lewis et al., 2010; Laumann et al., 2005, 1999). Women with dyspareunia typically enjoy sex and get aroused but find their sex lives very limited by the pain that accompanies what used to be a positive event (Huijding et al., 2011).

table: 13-4

Dx Checklist

Genito-Pelvic Pain/Penetration Disorder

1. For at least 6 months, individual repeatedly experiences at least one of the following problems:
   • Difficulty having vaginal penetration during intercourse
   • Significant vaginal or pelvic pain when trying to have intercourse or penetration
   • Significant fear that vaginal penetration will cause vaginal or pelvic pain
   • Significant tensing of the pelvic muscles during vaginal penetration.

2. Individual experiences significant distress from this.

(Information from: APA, 2013.)
This form of genito-pelvic pain/penetration disorder usually has a physical cause (Fugl-Meyer et al., 2013; Binik et al., 2007). Among the most common is an injury (for example, to the vagina or pelvic ligaments) during childbirth. The scar left by an episiotomy (a cut often made to enlarge the vaginal entrance and ease delivery) also can cause pain. Around 16 percent of women have severe vaginal or pelvic pain during intercourse for up to a year after giving birth (Bertozzi et al., 2010). More generally, such pain has also been tied to the penis colliding with remaining parts of the hymen, vaginal infections, wiry pubic hair rubbing against the labia during intercourse, pelvic diseases, tumors, cysts, allergic reactions to the chemicals in vaginal douches and contraceptive creams, the rubber in condoms and diaphragms, and the protein in semen (Tripoli et al., 2011).

Although psychological factors (for instance, heightened anxiety or overattentiveness to one’s body) or relationship problems may contribute to dyspareunia (Granot et al., 2011), psychosocial factors alone are rarely responsible for it (Dewitte, Van Lankveld, & Crombez, 2011). In cases that are truly psychogenic, the woman may in fact be suffering from female sexual interest/arousal disorder. That is, penetration into an unaroused, unlubricated vagina is painful (Fugl-Meyer et al., 2013). It also is the case that at least 3 percent of men suffer from pain in the genitals during intercourse, and many of these men also qualify for a diagnosis of genito-pelvic pain/penetration disorder (Lewis et al., 2010).

Treatments for Sexual Dysfunctions

The last 40 years have brought major changes in the treatment of sexual dysfunctions. For the first half of the twentieth century, the leading approach was long-term psychodynamic therapy. Clinicians assumed that sexual dysfunctioning was caused by failure to progress properly through the psychosexual stages of development, and they used techniques of free association and therapist interpretations to help clients gain insight about themselves and their problems. Although it was expected that broad personality changes would lead to improvement in sexual functioning, psychodynamic therapy was typically unsuccessful (Bergler, 1951).

In the 1950s and 1960s, behavioral therapists offered new treatments for sexual dysfunctions. Usually they tried to reduce the fears that they believed were causing...
the dysfunctions. They did so through such procedures as relaxation training and systematic desensitization (Lazarus, 1965; Wolpe, 1958). These approaches had some success, but they failed to work in cases where the key problems included misinformation, negative attitudes, and lack of effective sexual techniques (LoPiccolo, 2002, 1995).

A revolution in the treatment of sexual dysfunctions took place with the publication of William Masters and Virginia Johnson’s landmark book *Human Sexual Inadequacy* in 1970. The sex therapy program they introduced has evolved into a complex approach, which now includes interventions from the various models, particularly cognitive-behavioral, couple, and family systems therapies (McCarthy & McCarthy, 2012; Meana, 2012; Leiblum, 2010, 2007). The goal of sex therapy is to help clients function better sexually and to achieve a higher level of sexual satisfaction and psychological well-being (Cuzin, 2011). In recent years, biological interventions, particularly drug therapies, have been added to the treatment arsenal (Berry & Berry, 2013; Leiblum, 2010, 2007).

### What Are the General Features of Sex Therapy?

Modern sex therapy is short-term and instructive, typically lasting 15 to 20 sessions. It centers on specific sexual problems rather than on broad personality issues (Wincze et al., 2008). Carlos Domera, the Argentine man with erectile disorder whom you met earlier, responded successfully to the multiple techniques of modern sex therapy:

> At the end of the evaluation session the psychiatrist reassured the couple that Mr. Domera had a “reversible psychological” sexual problem that was due to several factors, including his depression, but also more currently his anxiety and embarrassment, his high standards, and some cultural and relationship difficulties that made communication awkward and relaxation nearly impossible. The couple was advised that a brief trial of therapy, focused directly on the sexual problem, would very likely produce significant improvement within ten to fourteen sessions. They were assured that the problem was almost certainly not physical in origin, but rather psychogenic, and that therefore the prognosis was excellent.

> Mr. Domera was shocked and skeptical, but the couple agreed to commence the therapy on a weekly basis, and they were given a typical first “assignment” to do at home: a caressing massage exercise to try together with specific instructions not to attempt genital stimulation or intercourse at all, even if an erection might occur.

> Not surprisingly, during the second session Mr. Domera reported with a cautious smile that they had “cheated” and had had intercourse “against the rules.” This was their first successful intercourse in more than a year. Their success and happiness were acknowledged by the therapist, but they were cautioned strongly that rapid initial improvement often occurs, only to be followed by increased performance anxiety in subsequent weeks and a return of the initial problem. They were humorously chastised and encouraged to try again to have sexual contact involving caressing and non-demand light genital stimulation, without an expectation of erection or orgasm, and to avoid intercourse.

> During the second and fourth weeks [Carlos] did not achieve erections during the love play, and the therapy sessions dealt with helping him to accept himself with or without erections and to learn to enjoy sensual contact without intercourse. His wife helped him to believe genuinely that he could please her with manual or oral stimulation and that, although she enjoyed intercourse, she enjoyed these other stimulations as much, as long as he was relaxed.

Sex is one of the topics most commonly searched on the Internet. Why might it be such a popular search topic?

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“Just a Second”

According to recent surveys, 1 in 10 respondents admit to using their cell phone during sex (Archer, 2013).
Carlos struggled with his cultural image of what a “man” does, but he had to admit that his wife seemed pleased and that he, too, was enjoying the nonintercourse caressing techniques. He was encouraged to view his new lovemaking skills as a “success” and to recognize that in many ways he was becoming a better lover than many husbands, because he was listening to his wife and responding to her requests.

By the fifth week the patient was attempting intercourse successfully with relaxed confidence, and by the ninth session he was responding regularly with erections. If they both agreed, they would either have intercourse or choose another sexual technique to achieve orgasm. Treatment was terminated after ten sessions.

(Spitzer et al., 1983, pp. 106–107)

As Carlos Domera’s treatment indicates, modern sex therapy includes a variety of principles and techniques. The following ones are used in almost all cases, regardless of the dysfunction:

1. **Assessing and conceptualizing the problem.** Patients are initially given a medical examination and are interviewed concerning their “sex history.” The therapist’s focus during the interview is on gathering information about past life events and, in particular, current factors that are contributing to the dysfunction (Althof et al., 2013; Berry & Berry, 2013; Meana, 2012). Sometimes proper assessment requires a team of specialists, perhaps including a psychologist, urologist, and neurologist.

2. **Mutual responsibility.** Therapists stress the principle of mutual responsibility. Both partners in the relationship share the sexual problem, regardless of who has the actual dysfunction, so treatment is likely to be more successful when both are in therapy (Laan et al., 2013; McCarthy & McCarthy, 2012; Brenot, 2011).

3. **Education about sexuality.** Many patients who suffer from sexual dysfunctions know very little about the physiology and techniques of sexual activity (McMahon et al., 2013; Rowland, 2012; Hinchliff & Gott, 2011). Thus sex therapists may discuss these topics and offer educational materials, including instructional books, videos, and Internet sites.

4. **Emotion identification.** Sex therapists help patients identify and express upsetting emotions tied to past events that may keep interfering with sexual arousal and enjoyment (Kleinplatz, 2010).

5. **Attitude change.** Following a cardinal principle of cognitive therapy, sex therapists help patients examine and change any beliefs about sexuality that are preventing sexual arousal and pleasure (McCarthy & McCarthy, 2012; Hall, 2010; Wincze et al., 2008). Some of these mistaken beliefs are widely shared in our society and can result from past traumatic events, family attitudes, or cultural ideas.

6. **Elimination of performance anxiety and the spectator role.** Therapists often teach couples sensate focus, or nondemand pleasuring, a series of sensual tasks, sometimes called “petting” exercises, in which the partners focus on the sexual pleasure that can be achieved by exploring and caressing each other’s body at home, without demands to have intercourse or reach orgasm—demands that may be interfering with arousal. Couples are told at first to refrain from intercourse at home and to restrict their sexual activity to kissing, hugging, and sensual massage of various parts of the body, but not of the breasts or genitals. Over time, they learn how to give...
and receive greater sexual pleasure and they build back up to the activity of sexual intercourse (Rowland, 2012).

7. **Increasing sexual and general communication skills.** Couples are taught to use their sensate-focus skills and apply new sexual techniques and positions at home. They may, for example, try sexual positions in which the person being caressed can guide the other’s hands and control the speed, pressure, and location of sexual contact (Heiman, 2007). Couples are also taught to give instructions to each other in a nonthreatening, informative manner (“It feels better over here, with a little less pressure”), rather than a threatening uninformative manner (“The way you’re touching me doesn’t turn me on”). Moreover, couples are often given broader training in how best to communicate with each other (Brenot, 2011; Wincze et al., 2008).

8. **Changing destructive lifestyles and marital interactions.** A therapist may encourage a couple to change their lifestyle or take other steps to improve a situation that is having a destructive effect on their relationship—to distance themselves from interfering in-laws, for example, or to change a job that is too demanding. Similarly, if the couple’s general relationship is marked by conflict, the therapist will try to help them improve it, often before work on the sexual problems per se begins (Brenot, 2011; Rosen, 2007).

9. **Addressing physical and medical factors.** Systematic increases in physical activity have proved helpful for persons with various kinds of sexual dysfunctions (Lewis et al., 2010). In addition, when sexual dysfunctions are caused by a medical problem, such as disease, injury, medication, or substance abuse, therapists try to address that problem (Korda et al., 2010; Ashton, 2007). If antidepressant medications are causing erectile disorder, for example, the clinician may suggest lowering the dosage of the medication, changing the time of day when the drug is taken, or turning to a different antidepressant.

What Techniques Are Used to Treat Particular Dysfunctions?

In addition to the general components of sex therapy, specific techniques can help in each of the sexual dysfunctions.

**Disorders of Desire** Male hypoactive sexual desire disorder and female sexual interest/arousal disorder are among the most difficult dysfunctions to treat because of the many issues that may feed into them (Leiblum, 2010). Thus therapists typically use a combination of techniques. In a technique called **affectual awareness**, patients visualize sexual scenes in order to discover any feelings of anxiety, vulnerability, and other negative emotions they may have concerning sex (McCarthy & McCarthy, 2012; Kleinplatz, 2010). In another technique, patients receive cognitive **self-instruction training** to help them change their negative reactions to sex. That is, they learn to replace negative statements during sex with “coping statements,” such as “I can allow myself to enjoy sex; it doesn’t mean I’ll lose control.”

Therapists may also use behavioral approaches to help heighten a patient’s sex drive. They may instruct clients to keep a “desire diary” in which they record sexual thoughts and feelings, to read books and view films with erotic content, and to fantasize about sex. They also may encourage pleasurable shared activities such as “When I touch him he rolls into a ball.”
as dancing and walking together (Rubio-Aurioles & Bivalacqua, 2013; LoPiccolo, 2002, 1997). If the reduced sexual desire has resulted from sexual assault or childhood molestation, additional techniques may be needed (Hall, 2010, 2007). A patient may, for example, be encouraged to remember, talk about, and think about the assault until the memories no longer arouse fear or tension. These and related psychological approaches apparently help many women and men with low sexual desire eventually to have intercourse more than once a week (Meana, 2012; Rowland, 2012; Hurlbert, 1993). However, only a few controlled studies have been conducted.

Finally, biological interventions, such as hormone treatments, have been used, particularly for women whose problems arose after removal of their ovaries or later in life. These interventions have received some research support (Rubio-Aurioles & Bivalacqua, 2013; Davison & Davis, 2011; Korda et al., 2010). In addition, several pharmaceutical drugs now are being developed specifically for the treatment of these disorders (Giraldi et al., 2013; Stahl, Sommer, & Allers, 2011).

Erectile Disorder Treatments for erectile disorder focus on reducing a man’s performance anxiety, increasing his stimulation, or both, using a range of behavioral, cognitive, and relationship interventions (Rowland, 2012; Carroll, 2011; Segraves & Althof, 2002). In one technique, the couple may be instructed to try the tease technique during sensate-focus exercises: the partner keeps caressing the man, but if the man gets an erection, the partner stops caressing him until he loses it. This exercise reduces pressure on the man to perform and at the same time teaches the couple that erections occur naturally in response to stimulation, as long as the partners do not keep focusing on performance. In another technique, the couple may be instructed to use manual or oral sex to try to achieve the woman’s orgasm, again reducing pressure on the man to perform (LoPiccolo, 2004, 2002, 1995). Biological approaches gained great momentum with the development in 1998 of sildenafil (trade name Viagra) (Rosen, 2007). This drug increases blood flow to the penis within one hour of ingestion; the increased blood flow enables the user to attain an erection during sexual activity (see PsychWatch on the next page). In general, sildenafil appears to be safe; however, it may not be so for men with certain coronary heart diseases and cardiovascular diseases, particularly those who are taking nitroglycerin and other heart medications (Stevenson & Elliott, 2007). Soon after Viagra emerged, two other erectile dysfunction drugs were also approved—tadalafil (Cialis) and vardenafil (Levitra)—that are now actively competing with Viagra for a share of the lucrative marketplace. Collectively, the three drugs are the most common form of treatment for erectile disorder. They effectively restore erections in 75 percent of men who use them. Some research, though, suggests that a combination of one of these erectile dysfunction drugs and a psychological intervention such as those mentioned above may be more helpful than either kind of treatment alone (Schmidt et al., 2014).

Prior to the development of Viagra, Cialis, and Levitra, a range of other medical procedures were developed for erectile disorder. These procedures are now viewed as “second line”—often costly—treatments that are used primarily when the medications are unsuccessful or too risky for individuals (Martin et al., 2013; Rosen, 2007; Frohman, 2002). Such treatments include gel suppositories, injections of drugs into the penis, and a vacuum erection device.
Disorders of Sex and Gender

Sexism, Viagra, and the Pill

Many of us believe that we live in an enlightened world, where sexism is declining and where health care and benefits are available to men and women in equal measure. Periodically, however, such illusions are shattered (Goldstein, 2014). The responses of government agencies and insurance companies to the discovery and marketing of Viagra in 1998 may be a case in point.

Consider, first, the nation of Japan. In early 1999, just 6 months after it was introduced in the United States, Viagra was approved for use among men in Japan (Goldstein, 2014; Martin, 2000). In contrast, low-dose contraceptives—"the pill"—were not approved for use among women in Japan until June 1999—a full 40 years after their introduction elsewhere! Many observers believe that birth control pills would still be unavailable to women in Japan had Viagra not received its quick approval.

Has the United States been able to avoid such an apparent double standard in its health care system? Not really. Before Viagra was introduced, insurance companies were not required to reimburse women for the cost of prescription contraceptives. As a result, women had to pay 68 percent more out-of-pocket expenses for health care than did men, largely because of uncovered reproductive health care costs (Hayden, 1998). Some legislators had tried to correct this problem by requiring contraceptive coverage in health insurance plans, but their efforts failed in state after state for more than a decade.

In contrast, when Viagra was introduced in 1998, many insurance companies readily agreed to cover it, and many states included Viagra as part of Medicaid coverage. As the public outcry grew over the contrast between coverage of Viagra for men and lack of coverage of oral contraceptives for women, laws across the country finally began to change. By the end of 1998, nine states required prescription contraceptive coverage (Hayden, 1998). Today 28 states require such coverage by private insurance companies (Guttmacher, 2011). The Affordable Care Act—the federal health care law passed in 2010 and enacted in 2013—includes provisions that require all insurance companies to cover contraceptives. However, in the so-called "Hobby Lobby" decision, the Supreme Court ruled in 2014 that corporation owners can refuse to provide such insurance coverage for their employees based on religious grounds.

Premature Ejaculation

Early ejaculation has been treated successfully for years by behavioral procedures (McMahon et al., 2013; Rowland, 2012; Masters & Johnson, 1970). In one such approach, the stop-start, or pause, procedure, the penis is manually stimulated until the man is highly aroused. The couple then pauses until his arousal subsides, after which the stimulation is resumed. This sequence is repeated several times before stimulation is carried through to ejaculation, so the man ultimately experiences much more total time of stimulation than he has ever experienced before (LoPiccolo, 2004, 1995). Eventually the couple progresses to putting the penis in the vagina, making sure to withdraw it and to pause whenever the man becomes too highly aroused. According to clinical reports, after 2 or 3 months, many couples can enjoy prolonged intercourse without any need for pauses (Althof, 2007; LoPiccolo, 2004, 2002).
Some clinicians treat premature ejaculation with SSRIs, the serotonin-enhancing antidepressant drugs. Because these drugs often reduce sexual arousal or orgasm, the reasoning goes, they may be helpful to men who ejaculate prematurely. Many studies report positive results with this approach (McMahon et al., 2013; Althof, 2007, 1995). The effect of this approach is consistent with the biological theory, mentioned earlier, that serotonin receptors in the brains of men with early ejaculation may function abnormally.

**Delayed Ejaculation** Therapies for delayed ejaculation include techniques to reduce performance anxiety and increase stimulation (Rowland, 2012; Hartmann & Waldinger, 2007; LoPiccolo, 2004). In one of many such techniques, a man may be instructed to masturbate to orgasm in the presence of his partner or to masturbate just short of orgasm before inserting his penis for intercourse (Marshall, 1997). This increases the likelihood that he will ejaculate during intercourse. He then is instructed to insert his penis at ever earlier stages of masturbation.

When delayed ejaculation is caused by physical factors such as neurological damage or injury, treatment may include a drug to increase arousal of the sympathetic nervous system (Stevenson & Elliott, 2007). However, few studies have systematically tested the effectiveness of such treatments (Hartmann & Waldinger, 2007).

**Female Orgasmic Disorder** Specific treatments for female orgasmic disorder include cognitive-behavioral techniques, self-exploration, enhancement of body awareness, and directed masturbation training (Laan et al., 2013; McCarthy & McCarthy, 2012; Meana, 2012). These procedures are especially useful for women who have never had an orgasm under any circumstances. Biological treatments, including hormone therapy or the use of sildenafil (Viagra), have also been tried, but research has not consistently found these to be helpful (Laan et al., 2013; Davison & Davis, 2011).

In **directed masturbation training**, a woman is taught step by step how to masturbate effectively and eventually to reach orgasm during sexual interactions. The training includes the use of diagrams and reading material, private self-stimulation, erotic material and fantasies, “orgasm triggers” such as holding her breath or thrusting her pelvis, sensate focus with her partner, and sexual positioning that produces stimulation of the clitoris during intercourse. This training program appears to be highly effective: over 90 percent of female clients learn to have an orgasm during masturbation, about 80 percent during caressing by their partners, and about 30 percent during intercourse (Laan et al., 2013; Heiman, 2007; LoPiccolo, 2002, 1997).

As you read earlier, a lack of orgasm during intercourse is not necessarily a sexual dysfunction, provided the woman enjoys intercourse and can reach orgasm through caressing, either by her partner or by herself. For this reason some therapists believe that the wisest course is simply to educate women whose only concern is lack of orgasm during intercourse, informing them that they are quite normal.

**Genito-Pelvic Pain/Penetration Disorder** Specific treatment for involuntary contractions of the muscles around the vagina typically involves two approaches (Fugl-Meyer et al., 2013; Rosenbaum, 2011). First, a woman may practice tightening and relaxing her vaginal muscles until she gains more voluntary control over them. Second, she may receive gradual behavioral exposure treatment to help her overcome her fear of penetration, beginning, for example, by inserting increasingly large dilators in her vagina at home and at her own pace and eventually ending with the insertion of her partner’s penis. Most clients treated with such procedures eventually have pain-free intercourse (Engman et al., 2010; ter Kuile et al., 2009). Some medical interventions have also been used. For example, several
clinical investigators have injected the problematic vaginal muscles with Botox to help reduce spasms in those muscles (Fugl-Meyer et al., 2013; Romito et al., 2004). However, studies of this approach have been unsystematic.

Different approaches are used to treat the other form of genito-pelvic pain/penetration disorder—severe vaginal or pelvic pain during intercourse. As you saw earlier, the most common cause of this problem is physical, such as pain-causing scars, lesions, or infection aftereffects. When the cause is known, pain management procedures (see pages 342–345) and sex therapy techniques may be tried, including helping a couple to learn intercourse positions that avoid putting pressure on the injured area (Fugl-Meyer et al., 2013; Dewitte et al., 2011). Medical interventions—from topical creams to surgery—may also be tried, but typically they must be combined with other sex therapy techniques to overcome the years of sexual anxiety and lack of arousal (Goodman, 2013; Binik et al., 2007). Many experts believe that, in most cases, both forms of genito-pelvic pain/penetration disorder are best assessed and treated by a team of professionals, including a gynecologist, physical therapist, and sex therapist or other mental health professional (Berry & Berry, 2013; Rosenbaum, 2011, 2007).

What Are the Current Trends in Sex Therapy?

Sex therapists have now moved well beyond the approach first developed by Masters and Johnson. For example, today’s sex therapists regularly treat partners who are living together but not married. They also treat sexual dysfunctions that arise from psychological disorders such as depression, mania, schizophrenia, and certain personality disorders (Leiblum, 2010, 2007; Bach et al., 2001). In addition, sex therapists no longer screen out clients with severe marital discord, the elderly, the medically ill, the physically handicapped, gay clients, or individuals who have no long-term sex partner (Rowen, 2013; Nichols & Shernoff, 2007; Stevenson & Elliott, 2007). Sex therapists are also paying more attention to excessive sexuality, sometimes called persistent sexuality disorder, hypersexuality, or sexual addiction (Carvalho, Verissimo, & Nobre, 2013; Facelle, Sadeghi-Nejad, & Goldmeier, 2013; Lee, 2011), although this condition is not listed as a disorder in DSM-5.

Many sex therapists have expressed concern about the sharp increase in the use of drugs and other medical interventions for sexual dysfunctions, particularly for the disorders characterized by low sexual desire and erectile disorder. Their concern is that therapists will increasingly choose the biological interventions rather than integrating biological, psychological, and sociocultural interventions. In fact, a narrow approach of any kind probably cannot fully address the complex factors that cause most sexual problems (Berry & Berry, 2013; Meana, 2012). It took sex therapists years to recognize the considerable advantages of an integrated approach to sexual dysfunctions. The development of new medical interventions should not lead to its abandonment.

Paraphilic Disorders

Paraphilias are patterns in which people repeatedly have intense sexual urges or fantasies or display sexual behaviors that involve objects or situations outside the usual sexual norms. The sexual focus may, for example, involve nonhuman objects or the experience of suffering or humiliation. Many people with a paraphilia can become aroused only when a paraphilic stimulus is present, fantasized about, or acted out. Others need the stimulus only during times of stress or under other special circumstances. Some people with one kind of paraphilia...
have others as well (Seto, Kingston, & Bourget, 2014). The large consumer market in paraphilic pornography and growing trends such as sexting and cybersex lead clinicians to suspect that paraphilias are, in fact, quite common (Ahlers et al., 2011; Pipe, 2010) (see MindTech below).

![MindTech](image)

“Sexting”: Healthy or Pathological?

“Sexting” is the sending of sexually explicit material—particularly, photos or text messages—between cell phones or other digital devices. The term “sexting” did not make its debut until 2005.

Surveys suggest that 20 percent of cell phone users have texted a sexually explicit photo of themselves and 40 percent have received a sexually explicit photo (McAfee, 2014; Strassberg et al., 2013). Half of all people save the sexual images and text messages they receive and more than 25 percent of recipients forward the sexual photos that they receive to others.

Naïve behavior? Not always. More than one-third of all sexters say they recognize that the act could lead to legal or personal problems. Young adults (18 to 24 years old) are the largest group of sexters. And males sext more often than females by a 3 to 2 margin.

Is sexting a symptom of abnormal functioning? It depends. Certainly, some sexters fit the criteria for exhibitionistic disorder, the paraphilic pattern in which people act on urges to expose their genitals to others. Sixteen percent of sexters send sexual photos of themselves to complete strangers (McAfee, 2014). And like other forms of exhibitionism, sexting can cause psychological problems for nonconsenting recipients (Beatbullying.org, 2009).

There are yet other ways in which sexting may reflect psychological or relationship problems. According to one study, people who sext to strangers or other nonconsenting recipients are more likely to have general problems with attachment or intimacy than other people (Drouin & Landgraff, 2012). In addition, research indicates that sexting (when done outside of one’s marriage or monogamous relationship) is often a step toward infidelity. Some psychologists believe that sexting is itself a form of infidelity even though it does not involve physical contact. It has even been the grounds for divorce in some cases (Cable, 2008; Siemaszko, 2006).

On the other side of the coin, sexting can be a constructive activity, according to some psychologists. Many couples engage in it as an added dimension to their marriage or relationship. According to surveys, more than half of all couples have texted sexual photos or messages to their partners at least once; one-third more than once (Drouin & Landgraff, 2012). Research suggests that this often enhances the in-person romantic relationship, creates more bonding, and heightens sexual satisfaction in the relationship (Parker et al., 2012).
According to DSM-5, a diagnosis of **paraphilic disorder** should be applied when paraphilias cause a person significant distress or impairment or when the satisfaction of the paraphilias places the person or other people at risk of harm—either currently or in the past (APA, 2013) (see Table 13-5). People who initiate sexual contact with children, for example, warrant a diagnosis of **pedophilic disorder** regardless of how troubled the individuals may or may not be over their behavior. People whose paraphilic disorder involves children or nonconsenting adults often come to the attention of clinicians as a result of legal issues generated by their inappropriate actions.

Although theorists have proposed various explanations for paraphilic disorders, there is little formal evidence to support such explanations (Becker et al., 2012; Raley, 2011). Moreover, none of the many treatments applied to these disorders have received much research or proved clearly effective (Becker et al., 2012; Roche & Quayle, 2007). Psychological and sociocultural treatments have been available the longest, but today’s professionals are also using biological interventions.

Some practitioners administer drugs called **antiandrogens** that lower the production of testosterone, the male sex hormone, and reduce the sex drive (Assumpção et al., 2014; Korda & Sommer, 2010). Although antiandrogens may indeed reduce paraphilic patterns, several of them disrupt normal sexual feelings and behavior as well (Kirkpatrick & Clark, 2011; Thibaut et al., 2010). Thus the drugs tend to be used primarily when the paraphilic disorders are of particular danger either to the individuals themselves or to other people. Clinicians are also increasingly prescribing **SSRIs**, the serotonin-enhancing antidepressant medications, to treat people with paraphilic disorders, hoping that the SSRIs will reduce these compulsion-like sexual behaviors just as they help reduce other kinds of compulsions (Assumpção et al., 2014; Berner & Briken, 2010). In addition, of course, a common effect of the SSRIs is to lower sexual arousal.

A word of caution is in order before examining the various paraphilic disorders. The definitions of these disorders, like those of sexual dysfunctions, are strongly influenced by the norms of the particular society in which they occur (McManus et al., 2013). Some clinicians argue that except when other people are hurt by them, at least some paraphilic behaviors should not be considered disorders at all (De Block & Adriaens, 2013; Wright, 2010). Especially in light of the stigma associated with sexual disorders and the self-revulsion that many people feel when they believe they have such a disorder, we need to be very careful about applying these labels to others or to ourselves (McManus et al., 2013). Keep in mind that for years clinicians considered homosexuality a paraphilic disorder, and their judgment was used to justify laws and even police actions against gay people (Dickinson et al., 2012; Kirby, 2000). Only when the gay rights movement helped change society’s understanding of and attitudes toward homosexuality did clinicians officially stop considering it a disorder and remove it from the DSM—partly in 1973 and then fully in 1986. Even then, as you observed in Chapter 2, many clinicians continued for years to recommend and offer conversion, or reparative, therapy to “fix” the sexual orientation of gay people. In the meantime, the clinical field had unintentionally contributed to the persecution, anxiety, and humiliation of millions of people because of personal sexual behavior that differed from the conventional norms.

**Fetishistic Disorder**

One relatively common paraphilic disorder is **fetishistic disorder**. Key features of this disorder are recurrent intense sexual urges, sexually arousing fantasies, or behaviors that involve the use of a nonliving object or nongenital body part, often to the exclusion of all other stimuli (APA, 2013). Usually the disorder, which is far
more common in men than in women, begins in adolescence. Almost anything can be a fetish; women’s underwear, shoes, and boots are particularly common. Some people with this disorder steal in order to collect as many of the desired objects as possible. The objects may be touched, smelled, worn, or used in some other way while the person masturbates, or the person may ask a partner to wear the object when they have sex (Marshall et al., 2008). Several of these features are seen in the following case:

A 32-year-old, single male . . . related that although he was somewhat sexually attracted by women, he was far more attracted by “their panties.”

To the best of the patient’s memory, sexual excitement began at about age 7, when he came upon a pornographic magazine and felt stimulated by pictures of partially nude women wearing “panties.” His first ejaculation occurred at 13 via masturbation to fantasies of women wearing panties. He masturbated into his older sister’s panties, which he had stolen without her knowledge. Subsequently he stole panties from her friends and from other women he met socially. He found pretexts to “wander” into the bedrooms of women during social occasions, and would quickly rummage through their possessions until he found a pair of panties to his satisfaction. He later used these to masturbate into, and then “saved them” in a “private cache.” The pattern of masturbating into women’s underwear had been his preferred method of achieving sexual excitement and orgasm from adolescence until the present consultation.

(Spitzer et al., 1994, p. 247)

Researchers have not been able to pinpoint the causes of fetishistic disorder. Psychodynamic theorists view fetishes as defense mechanisms that help people avoid the anxiety produced by normal sexual contact. Psychodynamic treatment for this problem, however, has met with little success (Öncü et al., 2009; Zurolo & Napolitano, 2008).
Behaviorists propose that fetishes are acquired through classical conditioning (Dozier, Iwata, & Worsdell, 2011; Roche & Quayle, 2007). In a pioneering behavioral study, male participants were shown a series of slides of nude women along with slides of boots (Rachman, 1966). After many trials, the participants became aroused by the boot photos alone. If early sexual experiences similarly occur in the presence of particular objects, perhaps the stage is set for development of fetishes.

Behaviorists have sometimes treated fetishistic disorder with aversion therapy (Plaud, 2007; Krueger & Kaplan, 2002). In one study, an electric shock was administered to the arms or legs of participants with this disorder while they imagined their objects of desire (Marks & Gelder, 1967). After 2 weeks of therapy all men in the study showed at least some improvement. In another aversion technique, covert sensitization, people with fetishistic disorder are guided to imagine the pleasurable object and repeatedly to pair this image with an imagined aversive stimulus until the object of sexual pleasure is no longer desired.

Another behavioral treatment for fetishistic disorder is masturbatory satiation (Plaud, 2007; Wright & Hatcher, 2006). In this method, the client masturbates to orgasm while fantasizing about a sexually appropriate object, then switches to fantasizing in detail about fetishistic objects while masturbating again and continues the fetishistic fantasy for an hour. The procedure is meant to produce a feeling of boredom, which in turn becomes linked to the fetishistic object.

Yet another behavioral approach to fetishistic disorder, also used for other paraphilias, is orgasmic reorientation, which teaches individuals to respond to more appropriate sources of sexual stimulation (Wright & Hatcher, 2006). People are shown conventional stimuli while they are responding to unconventional objects. A person with a shoe fetish, for example, may be instructed to obtain an erection from pictures of shoes and then to begin masturbating to a picture of a nude woman. If he starts to lose the erection, he must return to the pictures of shoes until he is masturbating effectively, then change back to the picture of the nude woman. When orgasm approaches, he must direct all attention to the conventional stimulus.

Transvestic Disorder

A person with transvestic disorder, also known as transvestism or cross-dressing, feels recurrent and intense sexual arousal from dressing in clothes of the opposite sex—arousal expressed through fantasies, urges, or behaviors (APA, 2013). In the following passage, a 42-year-old married father describes his pattern:

I have been told that when I dress in drag, at times I look like Whistler’s Mother [laughs], especially when I haven’t shaved closely. I usually am good at detail, and I make sure when I dress as a woman that I have my nails done just so, and that my colors match. Honestly, it’s hard to pin a date on when I began cross dressing. . . . If pressed, I would have to say it began when I was about 10 years of age, fooling around with and putting on my mom’s clothes. . . . I was always careful to put everything back in its exact place, and in 18 years of doing this in her home, my mother never, I mean never, suspected, or questioned me about putting on her clothes. I
belong to a transvestite support group . . . a group for men who cross dress. Some of the group are homosexuals, but most are not. A true transvestite—and I am one, so I know—is not homosexual. We don’t discriminate against them in the group at all; hey, we have enough trouble getting acceptance as normal people and not just a bunch of weirdos ourselves. They are a bunch of nice guys . . . , really. Most of them are like me.

Most of [the men in the group] have told their families about their dressing inclinations, but those that are married are a mixed lot; some wives know and some don’t, they just suspect. I believe in honesty, and told my wife about this before we were married. We’re separated now, but I don’t think it’s because of my cross dressing. . . . Some of my friends, when I was growing up, suggested psychotherapy, but I don’t regard this as a problem. If it bothers someone else, then they have the problem. . . . I function perfectly well sexually with my wife, though it took her some time to be comfortable with me wearing feminine underwear; yes, sometimes I wear it while making love, it just makes it more exciting.

Like this man, the typical person with transvestic disorder, almost always a heterosexual male, begins cross-dressing in childhood or adolescence (Marshall et al., 2008; Långström & Zucker, 2005). He is the picture of characteristic masculinity in everyday life and is usually alone when he cross-dresses. A small percentage of such men cross-dress to visit bars or social clubs. Some wear a single item of women’s clothing, such as underwear or hosiery, under their masculine clothes. Others wear makeup and dress fully as women. Some married men with transvestic disorder involve their wives in their cross-dressing. Transvestic disorder is often confused with gender dysphoria, but, as you will see, they are two separate patterns that overlap only in some individuals (Zucker et al., 2012).

The development of transvestic disorder sometimes seems to follow the behavioral principles of operant conditioning. In such cases, parents or other adults may openly encourage the child to cross-dress or even reward them for doing so. In one case, a woman was delighted to discover that her young nephew enjoyed dressing in girls’ clothes. She had always wanted a niece, and she proceeded to buy him dresses and jewelry and sometimes dressed him as a girl and took him out shopping.

**Exhibitionistic Disorder**

A person with exhibitionistic disorder experiences recurrent and intense sexual arousal from exposing his genitals to an unsuspecting individual—arousal reflected by fantasies, urges, or behaviors (APA, 2013). Most often, the person wants to provoke shock or surprise rather than initiate sexual activity with the victim. Sometimes an exhibitionist will expose himself in a particular neighborhood at particular hours. In a survey of 2,800 men, 4.3 percent of them reported that they perform exhibitionistic behavior (Långström & Seto, 2006). Yet between one-third and half of all women report having seen or had direct contact with an exhibitionist, or so-called flasher (Marshall et al., 2008). The urge to exhibit typically becomes stronger when the person has free time or is under significant stress.

Generally, exhibitionistic disorder begins before age 18 and usually, but not always, is found among men (APA, 2013; Holtzman & Kulish, 2012). Some studies suggest that those with the disorder are typically immature in their dealings with the opposite sex and have difficulty in interpersonal relationships (Marshall et al., 2008; Murphy & Page, 2006). Around 30 percent of them are married and another 30 percent divorced or separated; their sexual relations with their wives

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**BETWEEN THE LINES**

In Their Words

“Erection is chiefly caused by scuraum, eringoæs, cresses, crymon, parsnips, artichokes, turnips, asparagus, candied ginger, acorns bruised to powder and drank in muscadel, scallion, sea shell fish, etc.”

Aristotle, *The Masterpiece*, fourth century B.C.

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**exhibitionistic disorder** A paraphilic disorder in which persons have repeated sexually arousing urges or fantasies about exposing their genitals to others, and either act on these urges with nonconsenting individuals or experience clinically significant distress or impairment.

**voyeuristic disorder** A paraphilic disorder in which a person has repeated and intense sexual desires to observe unsuspecting people in secret as they undress or to spy on couples having intercourse, and either acts on these urges with nonconsenting people or experiences clinically significant distress or impairment.
are not usually satisfactory (Doctor & Neff, 2001). Many have doubts or fears about their masculinity, and some seem to have a strong bond to a possessive mother. As with other paraphilic disorders, treatment generally includes aversion therapy and masturbatory satiation, possibly combined with orgasmic reorientation, social skills training, or cognitive-behavioral therapy (Assumpção et al., 2014; Federoff & Marshall, 2010).

Voyeuristic Disorder

A person with voyeuristic disorder experiences recurrent and intense sexual arousal from observing an unsuspecting individual who is naked, disrobing, or engaging in sexual activity. As with other paraphilic disorders, this arousal takes the form of fantasies, urges, or behaviors (APA, 2013). The disorder usually begins before the age of 15 and tends to persist (APA, 2013).

A person with voyeuristic disorder may masturbate during the act of observing or when thinking about it afterward but does not generally seek to have sex with the person being spied on. The vulnerability of the people being observed and the probability that they would feel humiliated if they knew they were under observation are often part of the enjoyment. In addition, the risk of being discovered adds to the excitement, as you can see in 25-year-old Sam’s description of his disorder during an interview:

I’ve had girlfriends, but it’s not the same. It’s fun at first, but I get bored after a while in relationships. I never get that kick, that excitement, that I do when I look at others. There’s no way that it could be the same with someone who actually knows I’m there.

The biggest thrill is when I’m watching my neighbor having sex with one of her boyfriends, or maybe watching Zoe down the block changing her clothes. Neither of them fully shuts their drapes, so there’s always a little angle where I can see into their rooms if I get in just the right position on the lawn. Everything about it turns me on—learning their schedules, waiting until it’s just dark enough not to be seen, finding the right spot to look from, making sure I’m very quiet so no one hears me. Sometimes I’ll take a walk and try to find someone I haven’t watched before. If I hit the jackpot, that can be even more exciting, because I don’t know their routines, I don’t know what’s coming next, and I’m a little more nervous that I might get caught.

Thinking about it afterwards, I also get excited, especially if I came close to getting caught. I realize what a chance I was taking, and it gets my heart going and gets the rest of me going as well. Sometimes I’ll make up extra details when remembering what happened, especially details about barely getting away at the last second or even being spotted, and that makes it even better. Of course, if I ever did get caught, it would be horrible. I’d die if that ever happened.

Voyeurism, like exhibitionism, is often a source of sexual excitement in fantasy; it can also play a role in normal sexual interactions, but in such cases it is engaged in with the partner’s consent or understanding. The clinical disorder of voyeuristic disorder is marked by the repeated invasion of other people’s privacy. Some people with the disorder are unable to have normal sexual relations; others have a normal sex life apart from their disorder.

Many psychodynamic clinicians propose that people with voyeuristic disorder are seeking by their actions to gain power over others, possibly because they feel...
Frotteuristic Disorder

A person with frotteuristic disorder experiences repeated and intense sexual arousal from touching or rubbing against a nonconsenting person. The arousal may, like with the other paraphilic disorders, take the form of fantasies, urges, or behaviors. Frottage (from French *frotter*, “to rub”) is usually committed in a crowded place, such as a subway or a busy sidewalk (Guterman, Martin, & Rudes, 2010). The person, almost always a male, may rub his genitals against the victim’s thighs or buttocks or fondle her genital area or breasts with his hands. Typically he fantasizes during the act that he is having a caring relationship with the victim. This paraphilia usually begins in the teenage years or earlier, often after the person observes others committing an act of frottage. After the age of about 25, people gradually decrease and often cease their acts of frottage (APA, 2000).

Pedophilic Disorder

A person with pedophilic disorder experiences equal or greater sexual arousal from children than from physically mature people. This arousal is expressed through fantasies, urges, or behaviors (APA, 2013) (see *PsychWatch* on the next page). Those with the disorder may be attracted to prepubescent children (classic type), early pubescent children (hebephilic type), or both (pedohebephilic type). Some people with pedophilic disorder are satisfied by child pornography or seemingly innocent material such as children’s underwear ads; others are driven to actually watch, touch, fondle, or engage in sexual intercourse with children (Babchishin, Hanson, & VanZuylen, 2014; Schmidt et al., 2014). Some people with the disorder are attracted only to children; others are attracted to adults as well (Schmidt, Mokros, & Banse, 2013; Roche & Quayle, 2007). Both boys and girls can be pedophilic victims, but there is evidence suggesting that two-thirds are girls (Seto, 2008; Koss & Heslet, 1992).

People with pedophilic disorder usually develop their pattern of sexual need during adolescence (Farkas, 2013). Some were themselves sexually abused as children (Nunes et al., 2013), and many were neglected, excessively punished, or deprived of genuinely close relationships during their childhood. It is not unusual for them to be married and to have sexual difficulties or other frustrations in life that lead them to seek an area in which they can be masters. Often these individuals are immature: their social and sexual skills may be underdeveloped, and thoughts of normal sexual relationships fill them with anxiety (Seto, 2008; McAnulty, 2006).

Some people with pedophilic disorder also have distorted thinking, such as, “It’s all right to have sex with children as long as they agree” (Roche & Quayle, 2007; Abel et al., 2001, 1984). It is not uncommon for pedophiles to blame the children for adult–child sexual contacts or to assert that the children benefited from the experience (Durkin & Hundersmarck, 2008; Lanning, 2001).

While many people with this disorder believe that their feelings are indeed wrong and abnormal,
others consider adult sexual activity with children to be acceptable and normal. Some even have joined pedophile organizations that advocate abolishing the age-of-consent laws. The Internet has opened the channels of communication among such people, and there is now a wide range of Web sites, newsgroups, chat rooms, forums, and message boards centered on pedophilia and adult–child sex (Durkin & Hundersmarck, 2008).

Studies have found that most men with pedophilic disorder also display at least one additional psychological disorder (Farkas, 2013; McAnulty, 2006). Some theorists have proposed that pedophilic disorder may be related to biochemical or brain structure abnormalities such as irregular patterns of activity in the amygdala or in the frontal areas of the brain, but such abnormalities have yet to receive consistent research support (Lucka & Dziemian, 2014; Wiebking & Northoff, 2013).

Most pedophilic offenders are imprisoned or forced into treatment if they are caught (Staller & Faller, 2010). After all, they are committing child sexual abuse...
when they take any steps toward sexual contact with a child (Farkas, 2013). There are now many residential registration and community notification laws across the United States that help law enforcement agencies and the public account for and control where convicted child sex offenders live and work (OJJDP, 2010).

Treatments for pedophilic disorder include those already mentioned for other paraphilic disorders, such as aversion therapy, masturbatory satiation, orgasmic reorientation, cognitive-behavioral therapy, and antiandrogen drugs (Assumpção et al., 2014; Fromberger, Jordan, & Muller, 2013; Plaud, 2007). One widely applied cognitive-behavioral treatment for this disorder, relapse-prevention training, is modeled after the relapse-prevention training programs used in the treatment of substance use disorders (see pages 413–414). In this approach, clients identify the kinds of situations that typically trigger their pedophilic fantasies and actions (such as depressed mood or distorted thinking). They then learn strategies for avoiding those situations or coping with them more appropriately and effectively. Relapse-prevention training has sometimes, but not consistently, been of help in this and certain other paraphilic disorders (Federoff & Marshall, 2010; Marshall et al., 2008).

**Sexual Masochism Disorder**

A person with sexual masochism disorder is repeatedly and intensely sexually aroused by the act of being humiliated, beaten, bound, or otherwise made to suffer (APA, 2013). Again, this arousal may take such forms as fantasies, urges, or behaviors. Many people have fantasies of being forced into sexual acts against their will, but only those who are very distressed or impaired by the fantasies receive this diagnosis. Some people with the disorder act on the masochistic urges by themselves, perhaps tying, sticking pins into, or even cutting themselves. Others have their sexual partners restrain, tie up, blindfold, spank, paddle, whip, beat, electrically shock, “pin and pierce,” or humiliate them (APA, 2013).

An industry of products and services has arisen to meet the desires of people with the paraphilia or the paraphilic disorder of sexual masochism. Here a 34-year-old woman describes her work as the operator of a sadomasochism (S/M) facility:

> I get people here who have been all over looking for the right kind of pain they feel they deserve. Don’t ask me why they want pain, I’m not a psychologist; but when they have found us, they usually don’t go elsewhere. It may take some of the other girls an hour or even two hours to make these guys feel like they’ve had their treatment—I can achieve that in about 20 minutes. . . . Remember, these are businessmen, and they are not only buying my time, but they have to get back to work, so time is important.

> Among the things I do, that work really quickly and well, are: I put clothespins on their nipples, or pins in their [testicles]. Some of them need to see their own blood to be able to get off. . . . All the time that a torture scene is going on, there is constant dialogue. . . . I scream at the guy, and tell him what a no-good rotten bastard he is, how this is even too good for him, that he knows he deserves worse, and I begin to list his sins. It works every time. Hey, I’m not nuts, I know what I’m doing. I act very tough and hard, but I’m really a very sensitive woman. But you have to watch out for a guy’s health . . . you must not kill him, or have him get a heart attack. . . . I know of other places that have had guys die there. I’ve never lost a customer to death, though they may have wished for it during my “treatment.” Remember, these are repeat customers. I have a clientele and a reputation that I value.

(Janus & Janus, 1993, p. 115)
In one form of sexual masochism disorder, *hypoxiphyilia*, people strangle or smother themselves (or ask their partner to strangle them) in order to enhance their sexual pleasure. There have, in fact, been a disturbing number of clinical reports of *autoerotic asphyxia*, in which people, usually males and as young as 10 years old, may accidentally induce a fatal lack of oxygen by hanging, suffocating, or strangling themselves while masturbating (Hucker, 2011, 2008; Atanasijević et al., 2010). There is some debate as to whether the practice should be characterized as sexual masochism disorder, but it is at least sometimes accompanied by other acts of bondage.

Most masochistic sexual fantasies begin in childhood. However, the person does not act out the urges until later, usually by early adulthood. The pattern typically continues for many years. Some people practice more and more dangerous acts over time or during times of particular stress (Krueger, 2010; APA, 2000).

In many cases, sexual masochism disorder seems to have developed through the behavioral process of classical conditioning (Stekel, 2010; Akins, 2004). A classic case study tells of a teenage boy with a broken arm who was caressed and held close by an attractive nurse as the physician set his fracture, a procedure done in the past without anesthesia (Gebhard, 1965). The powerful combination of pain and sexual arousal the boy felt then may have been the cause of his later masochistic urges and acts.

**Sexual Sadism Disorder**

A person with *sexual sadism disorder*, usually male, is repeatedly and intensely sexually aroused by the physical or psychological suffering of another individual (APA, 2013). This arousal may be expressed through fantasies, urges, or behaviors, including acts such as dominating, restraining, blindfolding, cutting, strangling, mutilating, or even killing the victim (Nitschke et al., 2013). The label is derived from the name of the famous Marquis de Sade (1740–1814), who tortured others in order to satisfy his sexual desires.

People who fantasize about sexual sadism typically imagine that they have total control over a sexual victim who is terrified by the sadistic act. Many carry out sadistic acts with a consenting partner, often a person with sexual masochism disorder. Some, however, act out their urges on nonconsenting victims (Mokros et al., 2014). A number of rapists and sexual murderers, for example, exhibit sexual sadism disorder (Knecht, 2014; Healey, Lussier, & Beauregard, 2013). In all cases, the real or fantasized victim’s suffering is the key to arousal (Seto et al., 2012).

Fantasies of sexual sadism, like those of sexual masochism, may first appear in childhood or adolescence (Stone, 2010). People who engage in sadistic acts begin to do so by early adulthood (APA, 2013). The pattern is long-term. Some people with the disorder engage in the same level of cruelty in their sadistic acts over time, but often their sadism becomes more and more severe over the years (Robertson & Knight, 2014; Mokros et al., 2011). Obviously, people with severe forms of the disorder may be highly dangerous to others.

Some behaviorists believe that classical conditioning is at work in sexual sadism disorder (Akins, 2004). While inflicting pain, perhaps unintentionally, on an animal or person, a teenager may feel intense emotions and sexual arousal. The association between inflicting pain and being aroused sexually sets the stage for a pattern of sexual sadism. Behaviorists also propose that the disorder may result from modeling, when adolescents observe others achieving sexual satisfaction by inflicting pain. The many Internet sex sites and sexual videos, magazines, and books in our society make such models readily available (Brophy, 2010; Seto, Maric, & Barbaree, 2001).

Both psychodynamic and cognitive theorists suggest that people with sexual sadism disorder inflict pain in order to achieve a sense of power or control,
necessitated perhaps by underlying feelings of sexual inadequacy. The sense of power in turn increases their sexual arousal (Stekel, 2010; Rathbone, 2001). Alternatively, certain biological studies have found signs of possible brain and hormonal abnormalities in people with sexual sadism (Harenski et al., 2012; Jacobs, 2011; Bradford et al., 2008). None of these explanations, however, has been thoroughly investigated.

The disorder has been treated by aversion therapy. The public’s view of and distaste for this procedure have been influenced by the novel and 1971 movie *A Clockwork Orange*, which depicts simultaneous presentations of violent images and drug-induced stomach spasms to a sadistic young man until he is conditioned to feel nausea at the sight of such images. It is not clear that aversion therapy is helpful in cases of sexual sadism disorder. However, relapse-prevention training, used in some criminal cases, may be of value (Federoff & Marshall, 2010; Bradford et al., 2008).

**Gender Dysphoria**

As children and adults, most people feel like and identify themselves as males or females—a feeling and identity that is consistent with their assigned gender, the gender to which they are born. But society has come to appreciate that many people do not experience such gender clarity. Instead, they have transgender experiences—a sense that their actual gender identity is different from their assigned gender or a sense that it lies outside the usual male versus female categories. It is estimated that 1.5 million people in the United States are transgender—0.5% of the population (Steinmetz, 2014). The prevalence in other countries is about the same (Kuyper & Wijsen, 2014). Many transgender people come to terms with their gender inconsistencies, but others experience extreme unhappiness with their assigned gender and may seek treatment for their problem. DSM-5 categorizes these people as having gender dysphoria, a disorder in which people persistently feel that a vast mistake has been made—they have been born to the wrong sex—and have clinically significant distress or impairment with this gender mismatch (see Table 13-6).

The DSM-5 categorization of gender dysphoria is controversial (Sennott, 2011; Dannecker, 2010). Many argue that since transgender experiences reflect alternative—not pathological—ways of experiencing one’s gender identity, they should never be considered a psychological disorder, even when they bring significant unhappiness. At the other end of the spectrum, many argue that transgender experiences are in fact a medical problem that may produce personal unhappiness for some of the people with these experiences. According to this position, gender dysphoria should not be categorized as a psychological disorder, just as kidney disease and cancer, medical conditions that may also produce unhappiness, are not categorized as psychological disorders. Although one of these views may eventually prove to be an appropriate perspective, this chapter largely will follow DSM-5’s position that (1) a transgender orientation is more than a variant lifestyle if it is accompanied by significant distress or impairment, and (2) a transgender orientation is far from a clearly defined medical problem. We will also examine what clinical theorists believe they know about gender dysphoria.

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**Dx Checklist**

**Gender Dysphoria in Adolescents and Adults**

1. For 6 months or more, individual’s gender-related feelings and/or behaviors is at odds with those of his or her assigned gender, as indicated by two or more of the following symptoms: • Gender-related feelings and/or behaviors clearly contradict the individual’s primary or secondary sex characteristics • Powerful wish to eliminate one’s sex characteristics • Yearning for the sex characteristics of another gender • Powerful wish to be a member of another gender • Yearning to be treated as a member of another gender • Firm belief that one’s feelings and reactions are those that characterize another gender.

2. Individual experiences significant distress or impairment.

(Information from: APA, 2013.)
People with gender dysphoria typically would like to get rid of their primary and secondary sex characteristics—many of them find their own genitals repugnant—and acquire the characteristics of another sex (APA, 2013). Men with this disorder (i.e., “male-assigned people”) outnumber women (“female-assigned people”) by around 2 to 1. The individuals feel anxiety or depression and may have thoughts of suicide (Judge et al., 2014; Steinmetz, 2014). Such reactions may be related to the confusion and pain brought on by the disorder itself, or they may be tied to the prejudice typically faced by people who are transgender.

According to an extensive survey across the United States, for example, 80 to 90 percent of transgender people have been harassed at school or work; 50 percent have been fired from a job, not hired, or not promoted; and 20 percent have been denied a place to live (Steinmetz, 2014). Studies also suggest that some people with gender dysphoria manifest a personality disorder (Singh et al., 2011). Today the term gender dysphoria has replaced the old term transsexualism, although the word “transsexual” is still sometimes used to describe those who desire and seek full gender change, often by surgery (APA, 2013).

Sometimes gender dysphoria emerges in children (Milrod, 2014; Nicholson & McGuinness, 2014; APA, 2013). Like adults with this disorder, the children feel uncomfortable about their assigned gender and yearn to be members of another gender. This childhood pattern usually disappears by adolescence or adulthood, but in some cases it develops into adolescent and adult forms of gender dysphoria (Cohen-Kettenis, 2001). Thus adults with this disorder may have had a childhood form of gender dysphoria, but most children with the childhood form do not become adults with the disorder. Surveys of mothers indicate that about 1.5 percent of young boys wish to be a girl, and 3.5 percent of young girls wish to be a boy (Carroll, 2007; Zucker & Bradley, 1995), yet considerably less than 1 percent of adults manifest gender dysphoria (Zucker, 2010). This age shift in the prevalence of gender dysphoria is, in part, why leading experts on the disorder strongly recommend against any form of irreversible physical treatment for this pattern until people reach adulthood, a recommendation upheld in the World Professional Association for Transgender Health Standards of Care (Milrod, 2014; HBIGDA, 2001). Nevertheless, some surgeons continue to perform such procedures for younger patients.

**Explanations of Gender Dysphoria**

Many clinicians suspect that biological factors—perhaps genetic or prenatal—play a key role in gender dysphoria (Rametti et al., 2011; Nawata et al., 2010). Consistent with a genetic explanation, the disorder does sometimes run in families. Research indicates, for example, that people whose siblings have gender dysphoria are more likely to have the same disorder than are people without such siblings (Gómez-Gil et al., 2010). Indeed, one study of 23 pairs of identical twins found that when one of the twins had gender dysphoria, the other twin had it as well in 9 of the pairs (Heylens et al., 2012).

Biological investigators have recently detected differences between the brains of control participants and participants with gender dysphoria. One study found, for example, that those with the disorder had heightened blood flow in the insula and reduced blood flow in the anterior cingulate cortex (Nawata et al., 2010). These brain areas are known to play roles in human sexuality and consciousness.

A biological study that was conducted around 20 years ago continues to receive considerable attention (Zhou et al., 1997, 1995). Dutch investigators autopsied the brains of six people who had changed their sex from male to female. They found that a cluster of cells in the hypothalamus called the bed nucleus of stria terminalis
(BST) was only half as large in these people as it was in a control group of non-transgender men. Usually, a woman’s BST is much smaller than a man’s, so in effect the male-assigned people with gender dysphoria were found to have a female-sized BST. Scientists do not know for certain what the BST does in humans, but they know that it helps regulate sexual behavior in male rats. Thus it may be that male-assigned people who develop gender dysphoria have a key biological difference that leaves them very uncomfortable with their assigned sex characteristics.

Treatments for Gender Dysphoria

In order to more effectively assess and treat those with gender dysphoria, clinical theorists have tried to distinguish the most common patterns of the disorder encountered in clinical practice.

Client Patterns of Gender Dysphoria

Richard Carroll (2007), a leading theorist on gender dysphoria, has described the three patterns of gender dysphoria for which people most commonly seek treatment: (1) female-to-male gender dysphoria, (2) male-to-female gender dysphoria: androphilic type, and (3) male-to-female gender dysphoria: autogynephilic type.

**FEMALE-TO-MALE GENDER DYSPHORIA** People with a female-to-male gender dysphoria pattern are born female but appear or behave in a stereotypically masculine manner from early on—often as young as 3 years of age or younger. As children, they always play rough games or sports, prefer the company of boys, hate “girlish” clothes, and state their wish to be male. As adolescents, they become disgusted by the physical changes of puberty and are sexually attracted to females. However, lesbian relationships do not feel like a satisfactory solution to them because they want other women to be attracted to them as males, not as females.

**MALE-TO-FEMALE GENDER DYSPHORIA: ANDROPHILIC TYPE** People with an androphilic type of male-to-female gender dysphoria are born male but appear or behave in a stereotypically female manner from birth. As children, they are viewed as effeminate, pretty, and gentle; avoid rough games; and hate to dress in boys’ clothing. As adolescents, they become sexually attracted to males, and they often come out as gay and develop gay relationships (the term “androphilic” means attracted to males). But by adulthood, it often becomes clear to them that such gay relationships do not truly address their gender dysphoric feelings because they want other women to be attracted to them as men, not as females.

**MALE-TO-FEMALE GENDER DYSPHORIA: AUTOGYNEPHILIC TYPE** People with an autogynephilic type of male-to-female gender dysphoria are not sexually attracted to males; rather, they are attracted to the idea of themselves being female (the term “autogynephilic” means attracted to oneself as a female). Like males with the paraphilic disorder transvestic disorder (see pages 449–450), persons with this form of gender dysphoria behave in a stereotypically masculine manner as children, start to enjoy dressing in female clothing during childhood, and after puberty become sexually aroused when they cross-dress. Also, like males with transvestic disorder, they are attracted to females during and beyond adolescence. However, unlike people with transvestic disorder, these persons have desires of becoming female that become increasingly intense and overwhelming during adulthood.

In short, cross-dressing is characteristic of both men with transvestic disorder (the paraphilic disorder) and people with this type of male-to-female gender dysphoria (Zucker et al., 2012). But the former cross-dress strictly to become sexually aroused, whereas the latter develop much deeper reasons for cross-dressing, reasons of gender identity.

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**Lea T.**

Transgender model Lea T. emerged in 2010 as the face of Givenchy, the famous French fashion brand. Born male, the Brazilian model has become a leading female figure in runway fashion shows and magazines, including Vogue Paris, Cover magazine, and Love magazine. In 2012 she underwent sex-change surgery.

**sex-change surgery** A surgical procedure that changes a person’s sex organs, features, and, in turn, sexual identity. Also known as sexual reassignment surgery.
Types of Treatment for Gender Dysphoria

Many adults with gender dysphoria receive psychotherapy (Affatati et al., 2004), but a large number of them further seek to address their concerns through biological interventions (see MediaSpeak on the next page). For example, many transgender adults change their sexual characteristics by means of hormone treatments (Wierckx et al., 2014; Traish & Gooren, 2010). Physicians prescribe the female sex hormone estrogen for male-assigned patients, causing breast development, loss of body and facial hair, and changes in body fat distribution. Some such patients also go to speech therapy, raising their tenor voice to alto through training, and some have facial feminization surgery (Capitan et al., 2014; Steinmetz, 2014). In contrast, treatments with the male sex hormone testosterone are given to female-assigned patients with gender dysphoria, resulting in a deeper voice, increased muscle mass, and changes in facial and body hair.

These approaches enable many persons with the disorder to lead a fulfilling life in the gender that fits them. For others, however, this is not enough, and they seek out one of the most controversial practices in medicine: sexual reassignment, or sex change surgery (Judge et al., 2014; Andreasen & Black, 2006). This surgery, which is usually preceded by 1 to 2 years of hormone therapy, involves, for male-assigned persons, partial removal of the penis and restructuring of its remaining parts into a clitoris and vagina, a procedure called vaginoplasty. In addition, some individuals undergo face-changing plastic surgery. For female-assigned persons, surgery may include bilateral mastectomy and hysterectomy (Ott et al., 2010). The procedure for creating a functioning penis, called phalloplasty, is performed in some cases, but it is not perfected. Alternatively, doctors have developed a silicone prosthesis that can give patients the appearance of having male genitals. One review calculates that 1 of every 3,100 persons in the United States has had or will have sex–change surgery during their lifetime (Horton, 2008). For female-assigned persons, the incidence is 1 of every 4,200, and for male-assigned individuals, it is 1 of every 2,500. Many insurance companies refuse to cover these or even less invasive biological treatments for people with gender dysphoria, but a growing number of states now prohibit such insurance exclusions (Steinmetz, 2014).

Clinicians have debated heatedly whether sexual reassignment surgery is an appropriate treatment for gender dysphoria (Gozlan, 2011). Some consider it a humane solution, perhaps the most satisfying one to many people with the pattern. Others argue that sexual reassignment is a “drastic nonsolution” for a complex disorder. Either way, such surgery appears to be on the increase (Allison, 2010; Horton, 2008).

Research into the outcomes of sexual reassignment surgery has yielded mixed findings. On the one hand, in a number of studies, the majority of patients—both female-assigned and male-assigned—report satisfaction with the outcome of the surgery, improvements in self-satisfaction and interpersonal interactions, and improvements in sexual functioning (Judge et al., 2014; Johansson et al., 2010; Klein & Gorzalka, 2009). On the other hand, several studies have yielded less favorable findings. A long-term follow-up study in Sweden, for example, found that although sexually reassigned participants did show a reduction in gender dysphoria, they also had a higher rate of psychological disorders and of suicide attempts than the general population (Dhejne et al., 2011). People with serious pretreatment psychological disturbances (for example, a personality...
Few county judges command standing ovations before they say a word, nor do they compel hate mail from strangers halfway around the world.

Alameda County Superior Court Judge Victoria Kolakowski receives both. She is the first transgender person elected as a trial judge and one of the very few elected to any office. “No, I am not going to be able to get you out of things,” she said jokingly to an audience of transgender advocates . . . two weeks after her upset victory. . . . “I had a chance to serve. If my being visible helps a community that is often ignored and looked down upon, then I am happy. If not me, then who?”

But it took years of rejection and perseverance to get from Michael Kolakowski to 49-year-old Judge Victoria Kolakowski, even though as a child she hoped and prayed to wake up in a female body. “I guess the prayer was answered,” she said. “But not for a long time afterward.” . . .

Kolakowski, a New York native, is a carefully groomed, mildly spoken brunette of average build who usually appears wearing glasses, modest makeup, dark pantsuits and pumps. In other words, she looks a lot like a conservatively dressed judge. . . .

[Back when she was a teenager], the Internet did not exist, and information about transsexuals was unavailable to minors, Kolakowski said. At Louisiana State University, she finally found some books in the college library about transsexuality and realized that she was not alone. But when she told her parents, they took her to the emergency room of the hospital. This started an on-again, off-again series of counseling and therapy that lasted for a decade.

Kolakowski eventually married, came out with her wife during law school and began her transition to becoming a woman on April 1, 1989. It was her last semester at LSU. She was 27. Three years later, she underwent surgery to complete her transition to a woman.

She was a 30-year-old lawyer with five degrees on her resume. So she had no problem attracting job offers—only to be rejected when she walked into the interview.

Rejection is one of the commonalities for transgender women and men, and the pain can run deep. Some of the transgender lawyers Kolakowski knew killed themselves.

Kolakowski attributes her resilience to her faith—she also holds a master’s degree in divinity—and the support of “some very loving people.” That includes her parents and her second wife. . . . They wed in 2006.

By then, Kolakowski had become an administrative law judge. . . . Her chance to run for the Superior Court bench came in 2008. . . . Kolakowski didn’t win, but she tried again in 2010. “This time, things were different, and in June, I came in first,” she said.

The spotlight turned in her direction because she became a symbol of success for the transgender community. But she also has become a target. The more successful you are, the more backlash you are likely to get, she said, “and that backlash can be violent.” . . . [T]wo transgender women were killed in Houston last year, even though voters there elected a transgender municipal judge in November. . . . “We’re dealing with people who don’t know us and don’t really understand who we are,” she said.

Kolakowski is also mindful that she must be sensitive to the dignity of the office voters elected her to. Some people, she predicted, will accuse her of “acting inappropriately.” But she said: “This is what it is. I was elected based on my qualifications. It just happens to be historic.”

“Vicky Kolakowski Overcame Discrimination to Become Nation’s First Transgender Trial Judge.” Angela Woodall, Oakland Tribune, 12/30/2010. Used with permission of The Oakland Tribune © 2014. All rights reserved.
disorder) seem most likely to later regret the surgery (Carroll, 2007). All of this argues for careful screening prior to surgical interventions, continued research to better understand both the patterns themselves and the long-term impact of the surgical procedures, and, more generally, better clinical care for transgender people.

PUTTING IT...together

A Private Topic Draws Public Attention

For all the public interest in sexual and gender disorders, clinical theorists and practitioners have only recently begun to understand their nature and how to treat them. As a result of research done over the past few decades, people with sexual dysfunctions are no longer doomed to a lifetime of sexual frustration. At the same time, however, insights into the causes and treatment of paraphilic disorders and gender dysphoria remain limited.

Studies of sexual dysfunctions have pointed to many psychological, sociocultural, and biological causes. Often, as you have seen with so many disorders, the various causes may interact to produce a particular dysfunction, as in erectile disorder and female orgasmic disorder. For some dysfunctions, however, one cause alone is dominant, and integrated explanations may be inaccurate and unproductive. Some sexual pain dysfunctions, for example, have a physical cause exclusively.

Recent work has also yielded important progress in the treatment of sexual dysfunctions, and people with such problems are now often helped greatly by therapy. Sex therapy is usually a complex program tailored to the particular problems of an individual or couple. Techniques from the various models may be combined, although in some instances the particular problem calls primarily for one approach.

One of the most important insights to emerge from all of this work is that education about sexual dysfunctions can be as important as therapy. Sexual myths are still taken so seriously that they often lead to feelings of shame, self-hatred, isolation, and hopelessness—feelings that themselves contribute to sexual difficulty. Even a modest amount of education can help people who are in treatment.

In fact, most people can benefit from a more accurate understanding of sexual functioning. Public education about sexual functioning—through the Internet, books, television and radio, school programs, group presentations, and the like—has become a major clinical focus. It is important that these efforts continue and even increase in the coming years.

SUMMING UP

- **SEXUAL DYSFUNCTIONS** The human sexual response cycle consists of four phases: desire, excitement, orgasm, and resolution. Sexual dysfunctions, disorders in which people cannot respond normally in a key area of sexual functioning, make it difficult or impossible for a person to have or enjoy sexual activity. p. 426

- **DISORDERS OF DESIRE** DSM-5 lists two disorders of the desire phase of the sexual response cycle: male hypoactive sexual desire disorder and female sexual interest/arousal disorder. Men with the former disorder persistently lack or have reduced interest in sex and, in turn, engage in little sexual activity. Women with the latter disorder lack normal interest in sex.
rarely initiate sexual activity, and may also feel little excitement during sexual activity or in the presence of erotic cues. Biological causes for these disorders include abnormal hormone levels, certain drugs, and some medical illnesses. Psychological and sociocultural causes include specific fears, situational pressures, relationship problems, and the trauma of having been sexually molested or assaulted. pp. 426–430

■ DISORDERS OF EXCITEMENT Disorders of the excitement phase include erectile disorder, a repeated inability to attain or maintain an erection during sexual activity. Biological causes of erectile disorder include abnormal hormone levels, vascular problems, medical conditions, and certain medications. Psychological and sociocultural causes include the combination of performance anxiety and the spectator role, situational pressures such as job loss, and relationship problems. pp. 430–432

■ DISORDERS OF ORGASM Premature ejaculation has been attributed most often to behavioral causes, such as inappropriate early learning and inexperience. In recent years, possible biological factors have been identified as well. Delayed ejaculation, a repeated absence of or long delay in reaching orgasm, can have biological causes, such as low testosterone levels, neurological diseases, and certain drugs, and psychological causes, such as performance anxiety and the spectator role. The dysfunction may also develop from male hypoactive sexual desire disorder.

Female orgasmic disorder, which is often accompanied by arousal difficulties, has been tied to biological causes such as medical diseases and changes that occur after menopause, psychological causes such as memories of childhood traumas, and sociocultural causes such as relationship problems. Most clinicians agree that orgasm during intercourse is not critical to normal sexual functioning, provided a woman can reach orgasm with her partner during direct stimulation of the clitoris. pp. 433–437

■ SEXUAL PAIN DISORDERS Genito-pelvic pain/penetration disorder involves significant pain during intercourse. In one form of this disorder, vaginismus, involuntary contractions of the muscles around the outer third of the vagina prevent entry of the penis. In another form, dyspareunia, the person has severe vaginal or pelvic pain during intercourse. This form of the disorder usually occurs in women and typically has a physical cause, such as injury resulting from childbirth. pp. 437–438

■ TREATMENTS FOR SEXUAL DYSFUNCTIONS In the 1970s, the work of William Masters and Virginia Johnson led to the development of sex therapy. Today sex therapy combines a variety of cognitive, behavioral, couple, and family systems therapies. It generally includes features such as careful assessment, education, acceptance of mutual responsibility, attitude changes, sensate-focus exercises, improvements in communication, and couple therapy. In addition, specific techniques have been developed for each of the sexual dysfunctions. The use of biological treatments for sexual dysfunctions is also increasing. pp. 438–445

■ PARAPHILIC DISORDERS Paraphilias are patterns characterized by recurrent and intense sexual urges, fantasies, or behaviors involving objects or situations outside the usual sexual norms—for example, nonhuman objects, children, nonconsenting adults, or experiences of suffering or humiliation. When an individual’s paraphilia causes great distress, interferes with social or occupational functioning, or places the individual or others at risk of harm, a diagnosis of paraphilic disorder is applied. Paraphilic disorders are found primarily in men. The paraphilic disorders include fetishistic disorder,
Disorders of Sex and Gender

transvestic disorder, exhibitionistic disorder, voyeuristic disorder, frotteuristic disorder, pedophilic disorder, sexual masochism disorder, and sexual sadism disorder.

Fetishistic disorder consists of recurrent and intense sexual fantasies, urges, or behaviors that involve the use of a nonliving object or nongenital part. Transvestic disorder, also known as transvestism or cross-dressing, is characterized by repeated and intense sexual fantasies, urges, or behaviors that involve dressing in clothes of the opposite sex. Exhibitionistic disorder features repeated and intense sexual fantasies, urges, or behaviors that involve exposing one’s genitals to others. In voyeuristic disorder, a person has repeated and intense sexual fantasies, urges, or behaviors that involve secretly observing unsuspecting people who are naked, undressing, or engaging in sexual activity. In frotteuristic disorder, a person has repeated and intense sexual fantasies, urges, or behaviors that involve touching or rubbing against a nonconsenting person. In pedophilic disorder, a person has repeated and intense sexual fantasies, urges, or behaviors that involve watching, touching, or engaging in sexual acts with children. Sexual masochism disorder is characterized by repeated and intense sexual fantasies, urges, or behaviors that involve being humiliated, beaten, bound, or otherwise made to suffer. Sexual sadism disorder is characterized by repeated and intense sexual fantasies, urges, or behaviors that involve inflicting suffering on others.

Although various explanations have been proposed for paraphilic disorders, research has revealed little about their causes. A range of treatments have been tried, including aversion therapy, masturbatory satiation, orgasmic reorientation, and relapse-prevention training. pp. 445–456

GENDER DYSPHORIA People with gender dysphoria persistently feel that they have been born the wrong gender and, along with this, experience significant distress or impairment. Gender dysphoria in children usually disappears by adolescence or adulthood, but in some cases it develops into adolescent and adult forms of gender dysphoria. The causes of this disorder are not well understood. Hormone treatments, facial surgery, speech therapy, and psychotherapy have been used to help some people adopt the gender role they believe to be right for them. Sex-change operations have also been performed, but the appropriateness of surgery as a form of treatment has been debated heatedly. pp. 456–461

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Laura, 40 years old: Laura’s desire was to become independent and leave home . . . as soon as possible. . . . She became a professional dancer at the age of 20 . . . and was booked for . . . theaters in many European countries. . . . It was during one of her tours in Germany that Laura met her husband. . . . They were married and went to live in a small . . . town in France where the husband’s business was. . . . She spent a year in that town and was very unhappy. . . . [Finally] Laura and her husband decided to emigrate to the United States. . . . They had no children, and Laura . . . showed interest in pets. She had a dog to whom she was very devoted. The dog became sick and partially paralyzed, and veterinarians felt that there was no hope of recovery. . . . Finally [her husband] broached the problem to his wife, asking her “Should the dog be destroyed or not?” From that time on Laura became restless, agitated, and depressed. . . . Later Laura started to complain about the neighbors. A woman who lived on the floor beneath them was knocking on the wall to irritate her. According to the husband, this woman had really knocked on the wall a few times; he had heard the noises. However, Laura became more and more concerned about it. She would wake up in the middle of the night under the impression that she was hearing noises from the apartment downstairs. She would become upset and angry at the neighbors. . . . Later she became more disturbed. She started to feel that the neighbors were now recording everything she said; maybe they had hidden wires in the apartment. She started to feel “funny” sensations. There were many strange things happening, which she did not know how to explain; people were looking at her in a funny way in the street. . . . She felt that people were planning to harm either her or her husband. . . . In the evening when she looked at television, it became obvious to her that the programs referred to her life. Often the people on the programs were just repeating what she had thought. They were stealing her ideas. She wanted to go to the police and report them.

(Arieti, 1974, pp. 165–168)

Richard, 23 years old: In high school, Richard was an average student. After graduation from high school, he entered the army. . . . Richard remembered [the] period . . . after his discharge from the army . . . as one of the worst in his life. . . . Any, even remote, anticipation of disappointment was able to provoke attacks of anxiety in him. . . . Approximately two years after his return to civilian life, Richard left his job because he became overwhelmed by these feelings of lack of confidence in himself, and he refused to go look for another one. He stayed home most of the day. His mother would nag him that he was too lazy and unwilling to do anything. He became slower and slower in dressing and undressing and taking care of himself. When he went out of the house, he felt compelled “to give interpretations” to everything he looked at. He did not know what to do outside the house, where to go, where to turn. If he saw a red light at a crossing, he would interpret it as a message that he should not go in that direction. If he saw an arrow, he would follow the arrow interpreting it as a sign sent by God that he should go in that direction. Feeling lost and horrified, he would go home and stay there, afraid to go out because going out meant making decisions or choices that he felt unable to make. He reached the point where he stayed home most of the time. But even at home, he was tortured by his symptoms. He could not act; any motion that he felt like making seemed to him an insurmountable obstacle, because he did not know whether he should make it or not. He was increasingly afraid of doing the wrong thing. Such fears prevented him from dressing, undressing, eating, and so forth. He felt paralyzed and lay motionless in bed. He gradually became worse, was completely motionless, and had to be hospitalized. . . . Being undecided, he felt blocked, and often would remain mute and motionless, like a statue, even for days.

(Arieti, 1974, pp. 153–155)
Eventually, Laura and Richard each received a diagnosis of schizophrenia (APA, 2013) (see Table 14-1). People with schizophrenia, though they previously functioned well or at least acceptably, deteriorate into an isolated wilderness of unusual perceptions, odd thoughts, disturbed emotions, and motor abnormalities. In Chapter 15 you will see that schizophrenia is no longer the hopeless disorder of times past and that some sufferers, though certainly not all, now make remarkable recoveries. However, in this chapter let us first take a look at the symptoms of the disorder and at the theories that have been developed to explain them.

Like Laura and Richard, people with schizophrenia experience psychosis, a loss of contact with reality. Their ability to perceive and respond to the environment becomes so disturbed that they may not be able to function at home, with friends, in school, or at work (Harvey, 2014). They may have hallucinations (false sensory perceptions) or delusions (false beliefs), or they may withdraw into a private world. As you saw in Chapter 12, taking LSD or abusing amphetamines or cocaine may produce psychosis (see PsychWatch on page 468). So may injuries or diseases of the brain. And so may other severe psychological disorders, such as major depressive disorder or bipolar disorder (Pearson & Ford, 2014). Most commonly, however, psychosis appears in the form of schizophrenia. The term schizophrenia comes from the Greek words for “split mind.”

Actually, there are a number of schizophrenia-like disorders listed in DSM-5, each distinguished by particular durations and sets of symptoms (see Table 14-2).
Because these psychotic disorders all bear a similarity to schizophrenia, they—along with schizophrenia itself—are collectively called schizophrenia spectrum disorders (APA, 2013). Schizophrenia is the most prevalent of these disorders. Most of the explanations and treatments offered for schizophrenia are applicable to the other disorders as well (Potkin et al., 2014).

Approximately 1 in every 100 people in the world suffers from schizophrenia during his or her lifetime (Long et al., 2014; Lindenmayer & Khan, 2012). An estimated 24 million people worldwide are afflicted with it, including 2.5 million in the United States (NIMH, 2010). Its financial cost is enormous, and the emotional cost is even greater (Feldman et al., 2014; Kennedy et al., 2014). In addition, people with schizophrenia have an increased risk of physical—often fatal—illness (Dickerson et al., 2014). On average, they live 20 fewer years than other people (Laursen et al., 2014).

As you read in Chapter 9, people with schizophrenia also are much more likely to attempt suicide than the general population. It is estimated that as many as 25 percent of people with schizophrenia attempt suicide (Kasckow et al., 2011; Meltzer, 2011). Given this high risk, it is now strongly recommended that patients with schizophrenia receive thorough suicide risk assessments during treatment and when they are discharged from treatment programs (Pedersen et al., 2014).

Although schizophrenia appears in all socioeconomic groups, it is found more frequently in the lower levels (Burns, Tomita, & Kapadia, 2014; Sareen et al., 2011) (see Figure 14-1). This has led some theorists to believe that the stress of poverty is itself a cause of the disorder. However, it could be that schizophrenia causes its sufferers to fall from a higher to a lower socioeconomic level or to remain poor because they are unable to function effectively (Jablensky, Kirkbride, & Jones, 2011). This is sometimes called the downward drift theory.

Equal numbers of men and women are diagnosed with schizophrenia. The average age of onset for men is 23 years, compared with 28 years for women (Lindenmayer & Khan, 2012). Almost 3 percent of all those who are divorced or separated suffer from schizophrenia sometime during their lives, compared with 1 percent of married people and 2 percent of people who remain single. Again, however, it is not clear whether marital problems are a cause or a result (Solter et al., 2004; Keith et al., 1991).

People have long shown great interest in schizophrenia, flocking to plays and movies that explore or exploit our fascination with the disorder. Yet, as you will read, all too many people with schizophrenia are neglected in our country, their needs almost entirely ignored. Although effective interventions have been developed, sufferers live without adequate treatment and never fully fulfilling their potential as human beings.

### The Clinical Picture of Schizophrenia

For years, schizophrenia was a “wastebasket category” for diagnosticians, particularly for those in the United States, where the label was at times assigned to anyone who acted unpredictably or strangely. The disorder is defined more precisely today, but still its symptoms vary greatly, and so do its triggers, course, and responsiveness to treatment (APA, 2013). In fact, a number of clinicians believe that schizophrenia is actually a group of distinct disorders that happen to have some features in common (Boutros et al., 2014; Arango & Carpenter, 2011).
Mentally Ill Chemical Abusers

During the 1990s, Larry Hogue, nicknamed the “Wild Man of West 96th Street” by neighbors, became the best-known mentally ill chemical abuser (MICA) in the United States. MICAs, also known as dual diagnosis patients, are people who display both a severe mental disorder and a substance use disorder.

Hogue, a homeless man who lived on the streets of New York City’s Upper West Side, suffered from a combination of schizophrenia and cocaine and alcohol use disorder. As long as he did not abuse these substances, his schizophrenic disorder was responsive to treatment. But Hogue was unable to resist cocaine and alcohol, and the substances combined with his schizophrenia to produce a pattern of severe psychosis. While on the streets, particularly West 96th Street, Hogue behaved bizarrely. He would roam the streets in a menacing way, scream at passers-by, attack and threaten those who crossed his path, commit crimes against property, and strike fear into the hearts of the Upper West Side residents.

Hogue was arrested more than 30 times and imprisoned at least six times. In prison, with substances out of reach, he would quickly calm down, become more coherent, and seem ready for treatment in the community. However, once back in the community, he would seek alcohol and cocaine instead of treatment, and the whole pattern would begin again. Only after the case gained national attention was Hogue committed to a mental health facility for treatment of his dual diagnosis problem.

Although Larry Hogue eventually received proper attention, today the MICA problem in the United States appears to be bigger than ever (Chakraborty et al., 2014; Kavanagh & Mueser, 2011). Between 20 and 50 percent of all people with chronic mental disorders may be MICAs.

MICAs tend to be young and male. They often rate below average in social functioning and school achievement and above average in poverty, acting-out behavior, emergency room visits, and encounters with the criminal justice system (Robertson et al., 2014; Sullivan et al., 2007). MICAs commonly report more distress and have poorer treatment outcomes than people with mental disorders who do not abuse substances (Large et al., 2014; Haddock & Spaulding, 2011).

The relationship between substance abuse and mental dysfunctioning is complex. A person’s mental disorder may precede his or her substance abuse, and he or she may take a drug as a form of self-medication or as a result of impaired judgment. Conversely, substance abuse may cause or exacerbate psychopathology. Cocaine and amphetamines, for example, exacerbate the symptoms of psychosis and can quickly intensify the symptoms of schizophrenia, as in Larry Hogue’s case (Li et al., 2014). Whichever begins first, substance abuse and mental disorders interact to create a complex and distinct problem that is greater than the sum of its parts (Chakraborty et al., 2014; Kavanagh & Mueser, 2011). The course and outcome of each disorder can be significantly influenced by the other.

Treatment of MICAs has been undermined by the tendency of patients to hide their drug abuse problems and for clinicians to overlook such problems (Bahorik et al., 2014). Unrecognized substance abuse may lead to misdiagnosis and misunderstanding of the disorders. The treatment of MICAs is further complicated by the fact that many treatment facilities are designed and funded to treat either mental disorders or substance abuse; only some are equipped or willing to treat both (De Witte et al., 2014). As a result, it is not uncommon for MICA patients to be rejected as inappropriate for treatment in both substance abuse and mental health programs. Many such patients fall through the cracks in this way and find themselves in jail, like Larry Hogue, or in homeless shelters for want of the treatment they sought in vain (Kooyman & Walsh, 2011).

The problem of falling through the cracks is perhaps most poignantly seen in the case of homeless MICAs (Kooyman & Walsh, 2011; Felix, 2008). Researchers estimate that 10 to 20 percent of the homeless population may be MICAs. MICAs typically remain homeless longer than other homeless people and are more likely to have to contend with extremely harsh conditions, such as living on the winter streets rather than in a homeless shelter. Homeless MICAs need treatment programs committed to building trust and providing intensive case management (Coldwell & Bender, 2007; Egelko et al., 2002). In short, therapists must tailor treatment programs to MICAs’ unique combination of problems rather than expecting the MICAs to adapt to traditional forms of care.
Regardless of whether schizophrenia is a single disorder or several disorders, the lives of people who struggle with its symptoms are filled with pain and turmoil. One particularly coherent and articulate patient described what it is like to live with this disorder:

What does schizophrenia mean to me? It means fatigue and confusion, it means trying to separate every experience into the real and the unreal and sometimes not being aware of where the edges overlap. It means trying to think straight when there is a maze of experiences getting in the way, and when thoughts are continually being sucked out of your head so that you become embarrassed to speak at meetings. It means feeling sometimes that you are inside your head and visualizing yourself walking over your brain, or watching another girl wearing your clothes and carrying out actions as you think them. It means knowing that you are continually "watched," that you can never succeed in life because the laws are all against you and knowing that your ultimate destruction is never far away.

(Rollin, 1980, p. 162)

What Are the Symptoms of Schizophrenia?

Think back to Laura and Richard, the two people described at the beginning of the chapter. Both of them deteriorated from a normal level of functioning to become ineffective in dealing with the world (Laloyaux et al., 2014). Each had some of the symptoms found in schizophrenia. The symptoms can be grouped into three categories: positive symptoms (excesses of thought, emotion, and behavior), negative symptoms (deficits of thought, emotion, and behavior), and psychomotor symptoms (unusual movements or gestures). Some people with schizophrenia are more dominated by positive symptoms and others by negative symptoms, although most tend to have both kinds of symptoms to some degree. In addition, around half of those with schizophrenia have significant difficulties with memory and other kinds of cognitive functioning (Eich et al., 2014; Ordemann et al., 2014).

**Positive Symptoms** Positive symptoms are “pathological excesses,” or bizarre additions, to a person’s behavior. Delusions, disorganized thinking and speech, heightened perceptions and hallucinations, and inappropriate affect are the ones most often found in schizophrenia.

**Delusions** Many people with schizophrenia develop delusions, ideas that they believe wholeheartedly but that have no basis in fact. The deluded person may consider the ideas enlightening or may feel confused by them. Some people hold a single delusion that dominates their lives and behavior; others have many delusions. Delusions of persecution are the most common in schizophrenia (APA, 2013). People with such delusions believe they are being plotted or discriminated against, spied on, slandered, threatened, attacked, or deliberately victimized. Laura believed that her neighbors were trying to irritate her and that other people were trying to harm her and her husband.

People with schizophrenia may also have delusions of reference: they attach special and personal meaning to the actions of others or to various objects or events.
Richard, for example, interpreted arrows on street signs as indicators of the direction he should take. People with delusions of grandeur believe themselves to be great inventors, religious saviors, or other specially empowered persons (see MediaSpeak on the next page). And those with delusions of control believe their feelings, thoughts, and actions are being controlled by other people.

**DISORGANIZED THINKING AND SPEECH** People with schizophrenia may not be able to think logically (Briki et al., 2014) and may speak in peculiar ways (Millier et al., 2014). These formal thought disorders can cause the sufferer great confusion and make communication extremely difficult. Often such thought disorders take the form of positive symptoms (pathological excesses), as in loose associations, neologisms, perseveration, and clang.

People who have loose associations, or derailment, the most common formal thought disorder, rapidly shift from one topic to another, believing that their incoherent statements make sense. A single, perhaps unimportant word in one sentence becomes the focus of the next. One man with schizophrenia, asked about his itchy arms, responded:

> The problem is insects. My brother used to collect insects. He's now a man 5 foot 10 inches. You know, 10 is my favorite number. I also like to dance, draw, and watch television.

Some people with schizophrenia use neologisms, made-up words that typically have meaning only to the person using them. One person said, for example, “I am here from a foreign university . . . and you have to have a ‘plausity’ of all acts of amendment to go through for the children’s code . . . it is an ‘amorition’ law . . . the children have to have this ‘accentuative’ law so they don’t go into the ‘mortite’ law of the church” (Vetter, 1969, p. 189). Others may have the formal thought disorder of perseveration, in which they repeat their words and statements again and again. Finally, some use clang, or rhyme, to think or express themselves. When asked how he was feeling, one man replied, “Well, hell, it’s well to tell.” Another described the weather as “So hot, you know it runs on a cot.” Research suggests that some people may have disorganized speech or thinking long before their full pattern of schizophrenia unfolds (Remington et al., 2014; Covington et al., 2005).

**HEIGHTENED PERCEPTIONS AND HALLUCINATIONS** A deranged character in Edgar Allan Poe’s “The Tell-Tale Heart” asks, “Have I not told you that what you mistake for madness is but the overacuteness of the senses?” Similarly, the perceptions and attention of some people with schizophrenia seem to intensify (Rossi-Arnaud et al., 2014). The persons may feel that their senses are being flooded by all the sights and sounds that surround them (Galderisi et al., 2014). This makes it almost impossible for them to attend to anything important:

> Everything seems to grip my attention. . . . I am speaking to you just now, but I can hear noises going on next door and in the corridor. I find it difficult to shut these out, and it makes it more difficult for me to concentrate on what I am saying to you.

*(McGhie and Chapman, 1961)*

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**formal thought disorder** A disturbance in the production and organization of thought.

**loose associations** A common thinking disturbance in schizophrenia, characterized by rapid shifts from one topic of conversation to another. Also known as derailment.
Milt Greek pushed to his feet. It was Mother's Day 2006, not long after his mother's funeral, and he headed back home knowing that he needed help. A change in the medication for his schizophrenia, for sure. A change in focus, too; time with his family, to forget himself.

And, oh yes, he had to act on an urge expressed in his psychotic delusions: to save the world.

So after cleaning the yard around his house—a big job, a gift to his wife—in the coming days he sat down and wrote a letter to the editor of the local newspaper, supporting a noise-pollution ordinance. Small things, maybe, but Mr. Greek has learned to live with his diagnosis in part by understanding and acting on its underlying messages, and along the way has built something exceptional: a full life, complete with a family and a career. He is one of a small number of successful people with a severe psychiatric diagnosis who have chosen to tell their story publicly. In doing so, they are contributing to a deeper understanding of mental illness—and setting an example that can help others recover.

“I started feeling better, stronger, the next day,” said Mr. Greek, 49, a computer programmer who for years, before receiving medical treatment, had delusions of meeting God and Jesus. “I have such anxiety if I’m not organizing or doing some good work. I don’t feel right,” he said. “That’s what the psychosis has given me, and I consider it to be a gift.”

Doctors generally consider the delusional beliefs of schizophrenia to be just that—delusional—and any attempt to indulge them to be an exercise in reckless collusion that could make matters worse. . . . Yet people who have had such experiences often disagree, arguing that delusions have their origin not solely in the illness, but also in fears, longings and psychological wounds that, once understood, can help people sustain recovery after they receive treatment. . . . Mr. Greek . . . married in 2003, and [his wife] helped him fit his religious delusions, now controlled by medication, into a coherent personal story that has guided his day-to-day life. The frightening voices and ominous signs saying that he was damned were no more than embodiments of his very real childhood terror of being cast out, as the schoolyard boys threatened. His search for heaven on earth was in part an attempt to escape that fate, to find a secure place. But it also dramatized a longing to put the world right, a mission that may have started as vain fantasy, but in time became an emotional imperative, a need to commit small acts of kindness, like cooking dinner for a snowed-in neighbor. . . .

Mr. Greek’s regimen combines meditation, work and drug treatment with occasional visits to a therapist and a steady diet of charitable acts. Some of these are meant to improve the community; others are for co-workers and friends. . . . And he visits a therapist when stress levels are running very high. The therapy . . . treats him in sessions and with an antipsychotic drug, adjusting the dosage up or down depending on his mood. . . .

[Of late, Mr. Greek] has been especially stretched, between his work, various community projects, and traveling to speak, often to police groups, about how to understand psychotic thinking when dealing with people on the street. It was too much, and in August he visited his therapist again, and soon after made a deal with his wife. “She and I signed a contract identifying and limiting volunteer work I will do next year,” he said in an e-mail. “I am being coached on how to say no.”
Laboratory studies repeatedly have found problems of perception and attention among people with schizophrenia (Bozikas et al., 2014; Park et al., 2011). In one study, participants were instructed to listen for a particular syllable recorded against an ongoing background of speech (Harris et al., 1985). As long as the background speech was kept simple, participants with and without schizophrenia were equally successful at picking out the syllable in question; but when the background speech was made more distracting, those with schizophrenia became less able to identify the syllable. In many studies, people with schizophrenia have also demonstrated deficiencies in smooth pursuit eye movement, weaknesses that may be related again to attention problems. When asked to keep their head still and track a moving object back and forth with their eyes, research participants with schizophrenia tend to perform more poorly than those without schizophrenia (Franco et al., 2014; Egan & Cannon, 2011).

The various perception and attention problems that people with schizophrenia have may develop years before the onset of the actual disorder (Remington et al., 2014; Goldberg et al., 2011; Cornblatt & Keilp, 1994). It is also possible that such problems further contribute to the memory impairments that are common to many people with schizophrenia (Ordemann et al., 2014).

Another kind of perceptual problem in schizophrenia consists of hallucinations, perceptions that a person has in the absence of external stimuli (see InfoCentral on the next page). People who have auditory hallucinations, by far the most common kind in schizophrenia, hear sounds and voices that seem to come from outside their heads. The voices may talk directly to the hallucinator, perhaps giving commands or warning of dangers, or they may be experienced as overheard:

> The voices . . . were mostly heard in my head, though I often heard them in the air, or in different parts of the room. Every voice was different, and each beautiful, and generally, speaking or singing in a different tone and measure, and resembling those of relations or friends. There appeared to be many in my head, I should say upwards of fourteen. I divide them, as they styled themselves, or one another, into voices of contrition and voices of joy and honour.

(“Perceval’s Narrative,” in Bateson, 1974)

Research suggests that people with auditory hallucinations actually produce the nerve signals of sound in their brains, “hear” them, and then believe that external sources are responsible (Chun et al., 2014; Sarin & Wallin, 2014). One line of research measured blood flow in Broca’s area, the region of the brain that helps people produce speech (Homan et al., 2014; McGuire et al., 1996). The investigators found more blood flow in Broca’s area while patients were having auditory hallucinations. A related study instructed six men with schizophrenia to press a button whenever they had an auditory hallucination (Silbersweig et al., 1995). PET scans revealed...
Hallucinations are the experiencing of sights, sounds, smells, and other perceptions that occur in the absence of external stimuli.

**TYPES OF HALLUCINATIONS**

**AUDITORY HALLUCINATIONS**: Sounds and voices that seem to come from outside of the head.

**VISUAL HALLUCINATIONS**: Vague perceptions of colors or clouds, or distinct visions of people or objects.

**OLFACTORY HALLUCINATIONS**: Odors that no one else smells, such as the smell of poison or smoke.

**GUSTATORY HALLUCINATIONS**: Food or drink tastes strange on a regular basis.

**SOMATIC HALLUCINATIONS**: Feelings that something is happening inside the body, such as a snake crawling inside one’s stomach.

**TACTILE HALLUCINATIONS**: Perceptions of tingling, burning, or electric-shock sensations.

**HALLUCINATIONS CAN BE “NORMAL”**

Many people experience hallucinations that are unrelated to disorders or substance ingestion. These hallucinations...

— affect as many as 10–15% of the population
— occur every 3 days, on average
— last for 2–3 minutes
— can be controlled around 60% of the time
— cause little distress or disruption, unless misinterpreted

(Hallucinations are often experienced by people with brain disorders)

**BRAIN EXPLANATIONS FOR AUDITORY HALLUCINATIONS**

**ABNORMAL ACTIVATION** of the primary auditory cortex.

**FAILURE** to recognize internally generated speech as one’s own. Cross-activation with the auditory areas, so what most people experience as thoughts become “voiced.”

**ABNORMAL ATTENTION** to the subvocal stream that accompanies verbal thinking.

**MUSICAL HALLUCINATIONS** result from activation of the brain network involving auditory areas, the motor cortex, visual areas, basal ganglia, cerebellum, hippocampus, and amygdala.

**HALLUCINATIONS OVER THE AGES**

**Ancient times**: Attributed to gifts from the gods or the Muses.

**Prior to 18th century**: Caused by supernatural forces, such as gods or demons, angels or djinns.

**Middle of 18th century**: Caused by the overactivity of certain centers in the brain.

**1990s**: Resulting from a network of cortical and subcortical areas.
increased activity near the surfaces of their brains, in the tissues of the auditory cortex, the brain’s hearing center, when they pressed the button.

Hallucinations can also involve any of the other senses (Stevenson, Langdon, & McGuire, 2011). Tactile hallucinations may take the form of tingling, burning, or electric-shock sensations. Somatic hallucinations feel as if something is happening inside the body, such as a snake crawling inside one’s stomach. Visual hallucinations may produce vague perceptions of colors or clouds or distinct visions of people or objects. People with gustatory hallucinations regularly find that their food or drink tastes strange, and people with olfactory hallucinations smell odors that no one else does, such as the smell of poison or smoke.

Hallucinations and delusional ideas often occur together (Shiraishi et al., 2014). A woman who hears voices issuing commands, for example, may have the delusion that the commands are being placed in her head by someone else. A man with delusions of persecution may hallucinate the smell of poison in his bedroom or the taste of poison in his coffee. Might one symptom cause the other? Whatever the cause and whichever comes first, the hallucination and delusion eventually feed into each other.

INAPPROPRIATE AFFECT Many people with schizophrenia display inappropriate affect, emotions that are unsuited to the situation (Gard et al., 2011). They may smile when making a somber statement or upon being told terrible news, or they may become upset in situations that should make them happy. They may also undergo inappropriate shifts in mood. During a tender conversation with his wife, for example, a man with schizophrenia suddenly started yelling obscenities at her and complaining about her inadequacies.

In at least some cases, these emotions may be merely a response to other features of the disorder. Consider a woman with schizophrenia who smiles when told of her husband’s serious illness. She may not actually be happy about the news; in fact, she may not be understanding or even hearing it. She could, for example, be responding instead to another of the many stimuli flooding her senses, perhaps a joke coming from an auditory hallucination.

Negative Symptoms Negative symptoms are those that seem to be “pathological deficits,” characteristics that are lacking in a person. Poverty of speech, blunted and flat affect, loss of volition, and social withdrawal are commonly found in schizophrenia (Azorin et al., 2014; Rocca et al., 2014). Such deficits greatly affect one’s life and activities (Ferhava et al., 2014).

POVERTY OF SPEECH People with schizophrenia often have alogia, or poverty of speech, a reduction in speech or speech content. Some people with this negative kind of formal thought disorder think and say very little. Others say quite a bit but still manage to convey little meaning (Haas et al., 2014; Birkett et al., 2011). These problems are revealed in the following diary entry written in 1919 by Vaslav
Nijinsky, one of the twentieth century’s great ballet dancers, as his pattern of schizophrenia was unfolding:

“I do not wish people to think that I am a great writer or that I am a great artist nor even that I am a great man. I am a simple man who has suffered a lot. I believe I suffered more than Christ. I love life and want to live, to cry but cannot—I feel such a pain in my soul—a pain which frightens me. My soul is ill. My soul, not my mind. The doctors do not understand my illness. I know what I need to get well. My illness is too great to be cured quickly. I am incurable. Everyone who reads these lines will suffer—they will understand my feelings. I know what I need. I am strong, not weak. My body is not ill—it is my soul that is ill. I suffer, I suffer. Everyone will feel and understand. I am a man, not a beast. I love everyone, I have faults, I am a man—not God. I want to be God and therefore I try to improve myself. I want to dance, to draw, to play the piano, to write verses, I want to love everybody. That is the object of my life.

(Nijinsky, 1936)

RESTRICTED AFFECT Many people with schizophrenia have a blunted affect—they show less anger, sadness, joy, and other feelings than most people (Rocca et al., 2014). And some show almost no emotions at all, a condition known as flat affect. Their faces are still, their eye contact is poor, and their voices are monotonous. In some cases, people with these problems may have anhedonia, a general lack of pleasure or enjoyment. In other cases, however, the restricted affect may reflect an inability to express emotions as others do. One study had participants view very emotional film clips. The participants with schizophrenia showed less facial expression than the others; however, they reported feeling just as much positive and negative emotion and in fact displayed more skin arousal (Kring & Neale, 1996).

LOSS OF VOLITION Many people with schizophrenia experience avolition, or apathy, feeling drained of energy and of interest in normal goals and unable to start or follow through on a course of action (Gard et al., 2014; Gold et al., 2014). This problem is particularly common in people who have had schizophrenia for many years, as if they have been worn down by it. Similarly, people with schizophrenia may feel ambivalence, or conflicting feelings, about most things. The avolition and ambivalence of Richard, the young man you read about earlier, made eating, dressing, and undressing impossible ordeals for him.

SOCIAL WITHDRAWAL People with schizophrenia may withdraw from their social environment and attend only to their own ideas and fantasies (Gard et al., 2014; Pinkham, 2014). Because their ideas are illogical and confused, the withdrawal has the effect of distancing them still further from reality. The social withdrawal seems also to lead to a breakdown of social skills, including the ability to recognize other people’s needs and emotions accurately (Fogley, Warman, & Lysaker, 2014; Lysaker et al., 2014).

Psychomotor Symptoms People with schizophrenia sometimes experience psychomotor symptoms. Many move relatively slowly (Bervoets et al., 2014), and a number make awkward movements or repeated grimaces and odd gestures that seem to have a private purpose—perhaps ritualistic or magical (Stegmayer et al., 2014).

The psychomotor symptoms of schizophrenia may take certain extreme forms, collectively called catatonia. People in a catatonic pose

A catatonic pose

These patients, photographed in the early 1900s, show features of catatonia, including catatonic posturing, in which they assume bizarre positions for long periods of time.
stupor stop responding to their environment, remaining motionless and silent for long stretches of time. Recall how Richard would lie motionless and mute in bed for days. People with catatonic rigidity maintain a rigid, upright posture for hours and resist efforts to be moved. Still others exhibit catatonic posturing, assuming awkward, bizarre positions for long periods of time. They may, for example, spend hours holding their arms out at a 90-degree angle or balancing in a squatting position. Finally, people with catatonic excitement, a different form of catatonia, move excitedly, sometimes wildly waving their arms and legs.

What Is the Course of Schizophrenia?
Schizophrenia usually first appears between the person’s late teens and mid-thirties (Lindenmayer & Khan, 2012). Although its course varies widely from case to case, many sufferers seem to go through three phases—prodromal, active, and residual (Perkins & Lieberman, 2012). During the prodromal phase, symptoms are not yet obvious, but the person is beginning to deteriorate (Le Galudec et al., 2014; French, 2010). He or she may withdraw socially, speak in vague or odd ways, develop strange ideas, or express little emotion. During the active phase, symptoms become apparent. Sometimes this phase is triggered by stress or trauma in the person’s life (Bebbington & Kuipers, 2011; Callcott et al., 2011). For Laura, the middle-aged woman described earlier, the immediate trigger was the loss of her cherished dog.

Many people with schizophrenia eventually enter a residual phase in which they return to a prodromal-like level of functioning (Fukumoto et al., 2014). They may retain some negative symptoms, such as blunted emotion, but have a lessening of the striking symptoms of the active phase (Fervaha et al., 2014; Harvey, 2014). Although 25 percent or more of patients recover completely from schizophrenia, the majority continue to have at least some residual problems for the rest of their lives (an der Heiden & Häfner, 2011; Fischer & Carpenter, 2008).

Each of these phases may last for days or for years. A fuller recovery from schizophrenia is more likely in people who functioned quite well before the disorder (had good premorbid functioning); whose initial disorder is triggered by stress, comes on abruptly, or develops during middle age; and who receive early treatment, preferably during the prodromal phase (Remberk et al., 2014; Conus et al., 2007). Relapses are apparently more likely during times of life stress (Bebbington & Kuipers, 2011, 2008).

Diagnosing Schizophrenia
DSM-5 calls for a diagnosis of schizophrenia only after symptoms of the disorder continue for six months or more (APA, 2013). In at least one of those months, the person must be in an active phase, marked by significant delusions, hallucinations, or disorganized speech. In addition, there must be a deterioration in the person’s work, social relations, and ability to care for him or herself (see again Table 14-1).

Many researchers believe that in order to help predict the course of schizophrenia, there should be a distinction between so-called Type I and Type II schizophrenia. People with Type I schizophrenia are thought to be dominated by positive symptoms, such as delusions, hallucinations, and certain formal thought disorders (Crow, 2008, 1995, 1985, 1980). Those with Type II schizophrenia have more negative symptoms, such as restricted affect, poverty of speech, and loss of volition. Type I patients generally seem to have been better adjusted prior to the disorder, to have later onset of symptoms, and to be more likely to show improvement, especially when treated with medications (Marchesi et al., 2014; Corves et al., 2014; Blanchard et al., 2011). In addition, as you will soon see, the positive symptoms of Type I schizophrenia may be linked more closely to biochemical abnormalities in the brain, while the negative symptoms of Type II schizophrenia may be tied largely to structural abnormalities in the brain.
How Do Theorists Explain Schizophrenia?

As with many other kinds of disorders, biological, psychological, and sociocultural theorists have each proposed explanations for schizophrenia. So far, the biological explanations have received by far the most research support. This is not to say that psychological and sociocultural factors play no role in the disorder. Rather, a diathesis-stress relationship may be at work: people with a biological predisposition will develop schizophrenia only if certain kinds of events or stressors are also present. Similarly, a diathesis-stress relationship often seems to be operating in the development of other kinds of psychotic disorders (see PsychWatch on the next page).

Biological Views

What is arguably the most enlightening research on schizophrenia during the past several decades has come from genetic and biological investigations. These studies have revealed the key roles of inheritance and brain activity in the development of schizophrenia and have opened the door to important treatment changes.

Genetic Factors

Following the principles of the diathesis-stress perspective, genetic researchers believe that some people inherit a biological predisposition to schizophrenia and develop the disorder later when they face extreme stress, usually during late adolescence or early adulthood (Pocklington et al., 2014; Winchester et al., 2014). The genetic view has been supported by studies of (1) relatives of people with schizophrenia, (2) twins with schizophrenia, (3) people with schizophrenia who are adopted, and (4) genetic linkage and molecular biology.

ARE RELATIVES VULNERABLE? Family pedigree studies have found repeatedly that schizophrenia and schizophrenia-like brain abnormalities are more common among relatives of people with the disorder (Scognamiglio et al., 2014; Tamminga et al., 2008). And the more closely related the relatives are to the person with schizophrenia, the more likely they are to develop the disorder (see Figure 14-2).

As you saw earlier, 1 percent of the general population develops schizophrenia. The prevalence rises to 3 percent among second-degree relatives with the disorder—that is, half-siblings, uncles, aunts, nephews, nieces, and grandchildren (Gottesman & Reilly, 2003)—and it reaches an average of 10 percent among first-degree relatives (parents, siblings, and children). Of course, this trend by itself does not establish a genetic basis for the disorder. Neuroscientist Solomon Snyder (1980) has pointed out, “Attendance at Harvard University also runs in families but would hardly be considered a genetic trait.” Close family members are exposed to many of the same environmental influences as the person with schizophrenia, and it may be these influences that lead to the disorder.

IS AN IDENTICAL TWIN MORE VULNERABLE THAN A FRATERNAL TWIN? Twins, who are among the closest of relatives, have in particular been studied by schizophrenia researchers. If both members of a pair of twins have a particular trait, they are said to be concordant for that trait. If genetic factors are at work in schizophrenia, identical twins (who share all their genes) should have a higher concordance rate for schizophrenia than fraternal twins (who share only some genes). This expectation has been supported consistently by research (Higgins & George, 2007; Gottesman, 1991). Studies
Postpartum Psychosis: The Case of Andrea Yates

On the morning of June 20, 2001, the nation’s television viewers watched in horror as officials escorted 36-year-old Andrea Yates to a police car. Just minutes before, she had called police and explained that she had drowned her five children in the bathtub because “they weren’t developing correctly” and because she “realized [she had not been] a good mother to them.” Homicide sergeant Eric Mehl described how she looked him in the eye, nodded, answered with a polite “Yes, sir” to many of his questions, and twice recounted the order in which the children had died: first 3-year-old Paul, then 2-year-old Luke, followed by 5-year-old John and 6-month-old Mary. She then described how she had had to drag 7-year-old Noah to the bathroom and how he had come up twice as he fought for air. Later she told doctors she wanted him escorted 36-year-old Andrea Yates to a police car. Just minutes before, she had called police and explained that she had drowned her five children in the bathtub because “they weren’t developing correctly” and because she “realized [she had not been] a good mother to them.” Homicide sergeant Eric Mehl described how she looked him in the eye, nodded, answered with a polite “Yes, sir” to many of his questions, and twice recounted the order in which the children had died: first 3-year-old Paul, then 2-year-old Luke, followed by 5-year-old John and 6-month-old Mary. She then described how she had had to drag 7-year-old Noah to the bathroom and how he had come up twice as he fought for air. Later she told doctors she wanted him to have seen the number 666—the mark of the Antichrist—on her scalp (Roche, 2002).

In Chapter 7 you read that as many as 80 percent of mothers experience “baby blues” soon after giving birth, while between 10 and 30 percent display the clinical syndrome of postpartum depression. Yet another postpartum disorder that has become all too familiar to the public in recent times, by way of cases such as that of Andrea Yates, is postpartum psychosis (Engqvist et al., 2014). Postpartum psychosis affects about 1 to 2 of every 1,000 mothers who have recently given birth (Posmontier, 2010). The symptoms apparently are triggered by the enormous shift in hormone levels that takes place after delivery (Meinhard et al., 2014). Within days or at most a few months of childbirth, the woman develops signs of losing touch with reality, such as delusions (for example, she may become convinced that her baby is the devil); hallucinations (perhaps hearing voices); extreme anxiety, confusion, and disorientation; disturbed sleep; and illogical or chaotic thoughts (for example, thoughts about killing herself or her child).

Women with a history of bipolar disorder, schizophrenia, or depression are particularly vulnerable to the disorder (Di Florio et al., 2014; Read & Purse, 2007). Women who have previously experienced postpartum depression or postpartum psychosis have an increased likelihood of developing postpartum psychosis after subsequent births (Bergink et al., 2012; Nonacs, 2007). Andrea Yates, for example, had developed signs of postpartum depression (and perhaps postpartum psychosis) and attempted suicide after the birth of her fourth child. At that time, however, she appeared to respond well to a combination of medications, including antipsychotic drugs, and so she and her husband later decided to conceive a fifth child. Although they were warned that she was at risk for serious postpartum symptoms once again, they believed that the same combination of medications would help if the symptoms were to recur (King, 2002).

After the birth of her fifth child, the symptoms did in fact recur, along with features of psychosis. Yates again attempted suicide. Although she was hospitalized twice and treated with various medications, her condition failed to improve. Six months after giving birth to Mary, her fifth child, she drowned all five of her children.

Most clinicians who are knowledgeable about this rare disorder agree that Yates was a victim of postpartum psychosis. Although only a fraction of women with the disorder actually harm their children (estimates run as high as 4 percent), the Yates case reminds us that such an outcome is possible (Posmontier, 2010; Read & Purse, 2007). The case also reminds us that early detection and treatment are critical (O’Hara & Wisner, 2014; Doucet et al., 2011).

On March 13, 2002, a Texas jury found Andrea Yates guilty of murdering her children and sentenced her to life in prison. She had pleaded not guilty by reason of insanity during her trial, but the jury concluded within hours that despite her profound disorder, she did know right from wrong. The verdict itself stirred debate throughout the United States, but clinicians and the public alike were united in the belief that, at the very least, the mental health system had tragically failed this woman and her five children.

A Texas appeals court later reversed Yates’ conviction, citing the inaccurate testimony of a prosecution witness, and on July 26, 2006, after a new trial, Yates was found not guilty by reason of insanity and was sent to a high-security mental health facility for treatment. In 2007, she was transferred to a low-security state mental hospital, where she continues to receive treatment today.
have found that if one identical twin develops schizophrenia, there is a 48 percent chance that the other twin will do so as well. If the twins are fraternal, on the other hand, the second twin has approximately a 17 percent chance of developing the disorder.

Once again, however, factors other than genetics may explain these concordance rates. For example, if one twin is exposed to a particular danger during the prenatal period, such as an injury or virus, the other twin is likely to be exposed to it as well. This is especially true for identical twins, whose prenatal environment is especially similar. Thus a predisposition to schizophrenia could be the result of a prenatal problem, and twins, particularly identical twins, would still be expected to have a higher concordance rate.

ARE THE BIOLOGICAL RELATIVES OF AN ADOPTEE VULNERABLE? Adoption studies look at adults with schizophrenia who were adopted as infants and compare them with both their biological and their adoptive relatives. Because they were reared apart from their biological relatives, similar symptoms in those relatives would indicate genetic influences. Conversely, similarities to their adoptive relatives would suggest environmental influences. Researchers have repeatedly found that the biological relatives of adoptees with schizophrenia are more likely than their adoptive relatives to develop schizophrenia or another schizophrenia spectrum disorder (Andreasen & Black, 2006; Kety, 1988, 1968).

WHAT DO GENETIC LINKAGE AND MOLECULAR BIOLOGY STUDIES SUGGEST? As with bipolar disorders (see Chapter 7), researchers have run studies of genetic linkage and molecular biology to pinpoint the possible genetic factors in schizophrenia (Singh et al., 2014; Winchester et al., 2014). In one approach, they select large families in which schizophrenia is very common, take blood and DNA samples from all members of the families, and then compare gene fragments from members with and without schizophrenia. Applying this procedure to families from around the world, various studies have identified possible gene defects on chromosomes 1, 2, 6, 8, 10, 13, 15, 18, 20, and 22 and on the X chromosome, each of which may help predispose a person to develop schizophrenia (Huang et al., 2014; Muller, 2014).

These varied findings may indicate that some of the suspected gene sites are cases of mistaken identity and do not actually contribute to schizophrenia. Alternatively, it may be that different kinds of schizophrenia are linked to different genes. It is most likely, however, that schizophrenia, like a number of other disorders, is a polygenic disorder, caused by a combination of gene defects (Goudriaan et al., 2014; Purcell et al., 2014).

How might genetic factors lead to the development of schizophrenia? Research has pointed to two kinds of biological abnormalities that could conceivably be inherited—biochemical abnormalities and abnormal brain structure.

Biochemical Abnormalities As you have read, the brain is made up of neurons whose electrical impulses (or “messages”) are transmitted from one to another by neurotransmitters. After an impulse arrives at a receiving neuron, it travels down the axon of that neuron until it reaches the nerve ending. The nerve ending then releases neurotransmitters that travel across the synaptic space and bind to receptors on yet another neuron, thus relaying the message to the next “station.” This neuron activity is known as “firing.”

Over the past four decades, researchers have developed a dopamine hypothesis to explain their findings on schizophrenia: certain neurons that use the neurotransmitter dopamine (particularly neurons in the striatum region of the brain)
fire too often and transmit too many messages, thus producing the symptoms of schizophrenia (Brisch et al., 2014; During et al., 2014; Laruelle, 2014). This hypothesis has undergone challenges and adjustments in recent years, but it is still the foundation for current biochemical explanations of schizophrenia (Rao & Remington, 2014). The chain of events leading to this hypothesis began with the accidental discovery of antipsychotic drugs, medications that help remove the symptoms of schizophrenia. As you will see in Chapter 15, the first group of antipsychotic medications, the phenothiazines, were discovered in the 1950s by researchers who were looking for better antihistamine drugs to combat allergies. Although phenothiazines failed as antihistamines, it soon became obvious that they were effective in reducing schizophrenic symptoms, and clinicians began to prescribe them widely (Adams et al., 2014).

Researchers later learned that these early antipsychotic drugs often produce troublesome muscular tremors, symptoms that are identical to the central symptom of Parkinson’s disease, a disabling neurological illness. This undesired reaction to antipsychotic drugs offered the first important clue to the biology of schizophrenia. Scientists already knew that people who suffer from Parkinson’s disease have abnormally low levels of the neurotransmitter dopamine in some areas of the brain and that lack of dopamine is the reason for their uncontrollable shaking. If antipsychotic drugs produce Parkinsonian symptoms in people with schizophrenia while removing their psychotic symptoms, perhaps the drugs reduce dopamine activity. And, scientists reasoned further, if lowering dopamine activity helps remove the symptoms of schizophrenia, perhaps schizophrenia is related to excessive dopamine activity in the first place.

**HOW STRONG IS THE DOPAMINE-SCHIZOPHRENIA LINK?** Since the 1960s, research has supported and helped clarify the dopamine hypothesis. It has been found, for example, that some people with Parkinson’s disease develop schizophrenia-like symptoms if they take too much L-dopa, a medication that raises Parkinson’s patients’ dopamine levels (Grilly, 2002). The L-dopa apparently raises the dopamine activity so much that it produces psychosis.

Support for the dopamine hypothesis has also come from research on amphetamines, drugs that, as you saw in Chapter 12, stimulate the central nervous system. Investigators first noticed during the 1970s that people who take high doses of amphetamines may develop amphetamine psychosis—a syndrome very similar to schizophrenia (Hawken & Beninger, 2014; Li et al., 2014). They also found that antipsychotic drugs can reduce the symptoms of amphetamine psychosis, just as they reduce the symptoms of schizophrenia. Eventually researchers learned that amphetamines and similar stimulant drugs increase dopamine activity in the brain, thus producing schizophrenia-like symptoms (Peng, Chiang, & Liang, 2014).

Investigators have located areas of the brain that are rich in dopamine receptors and have found that phenothiazines and other antipsychotic drugs bind to many of these receptors (Yoshida et al., 2014). Apparently the drugs are dopamine antagonists—drugs that bind to dopamine receptors, prevent dopamine from binding there, and so prevent the neurons from firing. Researchers have identified five kinds of dopamine receptors in the brain—called the D-1, D-2, D-3, D-4, and D-5 receptors—and have found that phenothiazines bind most strongly to the D-2 receptors (Chun et al., 2014; Seeman, 2011).

**WHAT IS DOPAMINE’S PRECISE ROLE?** These and related findings suggest that in schizophrenia, messages traveling from dopamine-sending neurons to dopamine receptors on other neurons, particularly to the D-2 receptors, may be transmitted too easily or too often. This theory is appealing because certain dopamine neurons...
are known to play a key role in guiding attention (Brisch et al., 2014). People whose attention is severely disturbed by excessive dopamine activity might well be expected to suffer from the problems of attention, perception, and thought found in schizophrenia (see MindTech below).

**MindTech**

**Can Computers Develop Schizophrenia?**

One of the leading explanations for schizophrenia holds that people with this disorder are overwhelmed by the stimuli around them. According to this theory, excessive dopamine floods the brains of people with schizophrenia, leading them to process stimulus information at too high a rate. They are unable to forget or disregard extraneous sensory information, which leads to a process dubbed “hyperlearning.” As a result of hyperlearning, people with schizophrenia cannot distinguish between reality and illusion or recognize the barriers between unrelated pieces of information or unrelated experiences (Boyle, 2011).

Researchers in the computer science department at the University of Texas at Austin created a study to test the hyperlearning theory (Hoffman et al., 2011). They built a computer neural network they called DISCERN, and programmed it to store information in ways that parallel the ways the human brain organizes words, sentences, and other bits of information into knowledge and memories. The researchers then simulated the effects of a dopamine flood by programming the computer system to process information at a faster and faster rate, while at the same time programming it to ignore less and less data.

The researchers reported that after DISCERN had finished being reprogrammed, it began to display patterns of functioning that were similar to those found in people with schizophrenia. For example, while retelling stories that it had been programmed to recall, DISCERN began to place itself at the center of the retelling, often telling fantastical, delusional stories. In one instance, for example, the computer claimed that it had been responsible for a terrorist bombing. The researchers further found that the computer’s delusional stories were similar to those produced by human participants with schizophrenia after they had been given similar pieces of information.

This study may bring to mind the famous film *2001: A Space Odyssey*, in which a computer named “HAL,” with the capacity for artificial intelligence, develops a mental disorder when presented with orders that it could not logically reconcile. Of course, HAL’s actions in that film still remain the stuff of science fiction, and the UT Austin study provides, at most, limited support for the hyperlearning model of schizophrenia. Nevertheless, the study suggests that computer neural networks, which can be tightly controlled and manipulated, may eventually provide clinical researchers with a viable model of how the human brain works and breaks down.

“Dave, my mind is going.”
These are the words spoken by the brilliant computer HAL (left) to his colleague Dave Bowman, one of the astronauts aboard the Discovery One spacecraft in Stanley Kubrick’s movie *2001: A Space Odyssey.*

**Can you think of alternative—nonschizophrenic—explanations for the patterns of dysfunction displayed by the computer network DISCERN?**

**antipsychotic drugs** Drugs that help correct grossly confused or distorted thinking.

**phenothiazines** A group of antihistamine drugs that became the first group of effective antipsychotic medications.
Why might dopamine be overactive in people with schizophrenia? It may be that people with schizophrenia have a larger-than-usual number of dopamine receptors, particularly D-2 receptors, or their dopamine receptors may be too sensitive or operate abnormally in some other way (During et al., 2014; Seeman & Seeman, 2014). Remember that when dopamine carries a message to a receiving neuron, it must bind to a receptor on the neuron. A larger number of receptors or abnormal operation by the receptors could result in more dopamine binding and thus more neuron firing. Autopsies have in fact found an unusually large number of dopamine receptors in people with schizophrenia (Owen et al., 1987, 1978; Lee & Seeman, 1980), and imaging studies have revealed particularly high occupancy levels of dopamine at D-2 receptors in patients with schizophrenia (Kim et al., 2014; Abi-Dargham & Grace, 2011).

Though enlightening, the dopamine hypothesis has certain problems. The biggest challenge to it has come with the recent discovery of a new group of antipsychotic drugs, initially referred to as atypical antipsychotic drugs and now called second-generation antipsychotic drugs, which are often more effective than the traditional ones. The new drugs bind not only to D-2 dopamine receptors, like the traditional, or conventional, antipsychotic drugs, but also to many D-1 receptors and to receptors for other neurotransmitters such as serotonin (Waddington, O’Tuathaigh, & Remington, 2011; Goldman-Rakic et al., 2004). Thus, it may be that schizophrenia is related to abnormal activity or interactions of both dopamine and serotonin and perhaps other neurotransmitters (for example, glutamate and GABA) as well, rather than to abnormal dopamine activity alone (Hashimoto, 2014; Juckel, 2014; Pocklington et al., 2014).

In yet another challenge to the dopamine hypothesis, some theorists claim that excessive dopamine activity contributes primarily to the positive symptoms of schizophrenia such as delusions and hallucinations. In support of that notion, it turns out that positive symptoms respond well to the conventional antipsychotic drugs, which bind so strongly to D-2 receptors, whereas some of the negative symptoms (such as restricted affect and loss of volition) respond best to the second-generation antipsychotic drugs, which bind less strongly to D-2 receptors (Advokat et al., 2014; Millan et al., 2014). Still other studies suggest that negative symptoms may be related primarily to abnormal brain structure, rather than to dopamine overactivity.

Abnormal Brain Structure During the past decade, researchers have also linked schizophrenia, particularly cases dominated by negative symptoms, to abnormalities in brain structure (Millan et al., 2014; Shinto et al., 2014). Using brain scans, they have found, for example, that many people with schizophrenia have enlarged ventricles—the brain cavities that contain cerebrospinal fluid (Hartberg et al., 2011; Cahn et al., 2002; Lieberman et al., 2001). In addition to displaying more negative symptoms and fewer positive ones, patients who have enlarged ventricles tend to be more poorly adjusted socially before the onset of schizophrenia, to have more cognitive disturbances, and to respond less well to conventional antipsychotic drugs (Bornstein et al., 1992).

It may be that enlarged ventricles are actually a sign that nearby parts of the brain have not developed properly or have been damaged, and perhaps these problems are the ones that help produce schizophrenia. In fact, studies suggest that some patients with schizophrenia also have smaller temporal and frontal lobes than other people, smaller amounts of cortical white and gray matter and, perhaps most important, abnormal blood flow—either reduced or heightened—in certain areas of the brain (Kochunov & Hong, 2014; Lener et al., 2014). Still other studies have linked schizophrenia to abnormalities
of the hippocampus, amygdala, and thalamus, among other brain structures (Arnold et al., 2014; Chun et al., 2014; Markota et al., 2014) (see Figure 14-3).

**Viral Problems** What might cause the biochemical and structural abnormalities found in many cases of schizophrenia? Various studies have pointed to genetic factors, poor nutrition, fetal development, birth complications, immune reactions, and toxins (Brown, 2012; Clarke et al., 2012; Borrajo et al., 2011). In addition, some investigators suggest that the brain abnormalities may result from exposure to viruses before birth. Perhaps the viruses enter the fetus’ brain and interrupt proper brain development, or perhaps the viruses remain quiet until puberty or young adulthood, when, activated by changes in hormones or by another viral infection, they help to bring about schizophrenic symptoms (Fox, 2010; Torrey, 2001, 1991).

Some of the evidence for the viral theory comes from animal model investigations, and other evidence is circumstantial, such as the finding that an unusually large number of people with schizophrenia are born during the winter (Patterson, 2012; Fox, 2010). The winter birth rate among people with schizophrenia is 5 to 8 percent higher than among other people (Harper & Brown, 2012; Tamminga et al., 2008). This could be because of an increase in fetal or infant exposure to viruses at that time of year. The viral theory has also received support from investigations of fingerprints. Normally, identical twins have almost identical numbers of fingerprint ridges. People with schizophrenia, however, often have significantly more or fewer ridges than their nonschizophrenic identical twins (van Os et al., 1997; Torrey et al., 1994). Fingerprints form in the fetus during the second trimester of pregnancy, just when the fetus is most vulnerable to certain viruses. Thus the fingerprint irregularities of some people with schizophrenia could reflect a viral infection contracted during the prenatal period, an infection that also predisposed the individuals to schizophrenia.

More direct evidence for the viral theory of schizophrenia comes from studies showing that mothers of people with schizophrenia were more likely to have been exposed to the influenza virus during pregnancy than were mothers of people without schizophrenia (Canetta et al., 2014; Brown & Patterson, 2011; Fox, 2010). Other studies have found antibodies to certain viruses, including viruses usually found in animals, in the blood of 40 percent of research participants with schizophrenia (Leweke et al., 2004; Torrey et al., 1994). The presence of such antibodies suggests that these people had at some time been exposed to those particular viruses.

Together, the biochemical, brain structure, and viral findings are shedding much light on the mysteries of schizophrenia. At the same time, it is important to recognize that many people who have these biological abnormalities never develop schizophrenia. Why not? Possibly, as you read earlier, because biological factors merely set the stage for schizophrenia, while key psychological and sociocultural factors must be present for the disorder to appear.

**Psychological Views**

When schizophrenia investigators began to identify genetic and biological factors during the 1950s and 1960s, many clinicians abandoned the psychological theories of the disorder. During the past few decades, however, the tables have been turned and psychological factors are once again being considered as important pieces of the schizophrenia puzzle (Green et al., 2014). The leading psychological theories come from the psychodynamic, behavioral, and cognitive perspectives.
The Psychodynamic Explanation

Freud (1924, 1915, 1914) believed that schizophrenia develops from two psychological processes: (1) regression to a pre-ego stage and (2) efforts to reestablish ego control. He proposed that when their world has been extremely harsh or withholding—for example, when their parents have been cold or unnurturing or when they have experienced severe traumas—some people regress to the earliest point in their development, to the pre-ego state of primary narcissism, in which they recognize and meet only their own needs. This sets the stage for schizophrenia. Their near-total regression leads to self-centered symptoms such as neologisms, loose associations, and delusions of grandeur. Once people regress to such an infantile state, Freud continued, they then try to reestablish ego control and contact with reality. Their efforts give rise to yet other psychotic symptoms. Auditory hallucinations, for example, may be a person’s attempt to substitute for a lost sense of reality.

In support of Freud’s theory, some studies show that people with schizophrenia have great difficulty forming an integrated sense of self (Lysaker et al., 2014). In addition, studies have often found that people with schizophrenia went through severe stress or traumas early in their lives (Bebbington & Kuipers, 2011). Beyond these findings, however, Freud’s explanation for the disorder has received little research support.

Years later, noted psychodynamic clinician Frieda Fromm-Reichmann (1948) elaborated on Freud’s notion that cold or unnurturing parents may set schizophrenia in motion. She described the mothers of people who develop the disorder as cold, domineering, and uninterested in their children’s needs. According to Fromm-Reichmann, these mothers may appear to be self-sacrificing but are actually using their children to meet their own needs. At once overprotective and rejecting, they confuse their children and set the stage for schizophrenic functioning. She called them schizophrenogenic (schizophrenia-causing) mothers.

Fromm-Reichmann’s theory, like Freud’s, has received little research support (Willick, 2001). The majority of people with schizophrenia do not appear to have mothers who fit the schizophrenogenic description. Most of today’s psychodynamic theorists have rejected the views of Freud and Fromm-Reichmann. Typically, they believe that biological abnormalities leave certain people particularly prone to extreme regression or other unconscious acts that may contribute to schizophrenia (Berzoff, Flanagan, & Hertz, 2008; Willick, Milrod, & Karush, 1998). For example, self theorists, who believe that schizophrenia reflects a struggling fragmented self, suggest that biological deficiencies explain the failure of people with schizophrenia to develop an integrated self (Lysaker & Hermans, 2007).

The Behavioral View

Behaviorists usually cite operant conditioning and principles of reinforcement as the cause of schizophrenia. They propose that most people become quite proficient at reading and responding to social cues—that is, other people’s smiles, frowns, and comments. People who respond to such cues in a socially acceptable way are better able to satisfy their own emotional needs and reach their goals. Some people, however, are not reinforced for their attention to social cues, either because of unusual circumstances or because important figures in their lives are socially inadequate. As a result, they stop attending to such cues and focus instead on irrelevant cues—the brightness of light in a room, a bird flying above, or the sound of a word rather than its meaning. As they attend more and more to irrelevant cues, their responses become increasingly bizarre (Pinkham, 2014). Because the bizarre responses are rewarded with attention or other types of reinforcement, they are likely to be repeated again and again.

schizophrenogenic mother

A type of mother—supposedly cold, domineering, and uninterested in the needs of her children—who was once thought to cause schizophrenia in her child.

Why have parents and family life so often been blamed for schizophrenia, and why do such explanations continue to be influential?
Support for the behavioral position has been circumstantial. As you’ll see in Chapter 15, researchers have found that patients with schizophrenia are capable of learning at least some appropriate verbal and social behaviors if hospital personnel consistently ignore their bizarre responses and reinforce normal responses with cigarettes, food, attention, or other rewards (Kopelowicz, Liberman, & Zarate, 2007). If bizarre verbal and social responses can be eliminated by appropriate reinforcements, perhaps they were acquired through improper learning in the first place. Of course, an effective treatment does not necessarily indicate the cause of a disorder. Today the behavioral view is usually considered at best a partial explanation for schizophrenia. Although it may help explain why a given person displays more psychotic behavior in some situations than in others, it is too limited, in the opinion of many, to account for schizophrenia’s origins and its many symptoms.

The Cognitive View
A leading cognitive explanation of schizophrenia is congruent with the biological view that during hallucinations and related perceptual difficulties the brains of people with schizophrenia are actually producing strange and unreal sensations—sensations triggered by biological factors. According to the cognitive explanation, however, when people attempt to understand their unusual experiences, more features of their disorder emerge (Howes & Murray, 2014; Tarrier, 2008). When first confronted by voices or other troubling sensations, these people turn to friends and relatives. Naturally, the friends and relatives deny the reality of the sensations, and eventually the sufferers conclude that the others are trying to hide the truth. They begin to reject all feedback, and some develop beliefs (delusions) that they are being persecuted (Howes & Murray, 2014; Bach, 2007). In short, according to this theory, people with schizophrenia take a “rational path to madness” (Zimbardo, 1976). This process of drawing incorrect and bizarre conclusions (delusions) may be helped along by a cognitive bias that many people with schizophrenia have—a tendency to jump to conclusions (Andreou et al., 2014; Sarin & Wallin, 2014).

Researchers have established that people with schizophrenia do indeed experience sensory and perceptual problems. As you saw earlier, many have hallucinations and most have trouble keeping their attention focused. But researchers have yet to provide clear, direct support for the cognitive notion that misinterpretations of such sensory problems actually produce a syndrome of schizophrenia.

Sociocultural Views
Sociocultural theorists, recognizing that people with mental disorders are subject to a wide range of social and cultural forces, believe that multicultural factors, social labeling, and family dysfunctioning all contribute to schizophrenia. Research has yet to clarify what the precise causal relationships might be.

Multicultural Factors
Rates of schizophrenia appear to differ between racial and ethnic groups (Singh & Kunar, 2010), particularly between African Americans and white Americans. As many as 2.1 percent of African Americans receive a diagnosis of schizophrenia, compared with 1.4 percent of white Americans (Lawson, 2008; Folsom et al., 2006). Studies also find that African American patients are more likely than white American patients to be assessed as having symptoms of hallucinations, paranoia, and suspiciousness (Mark et al., 2003; Trierweiler et al., 2000). And still other studies suggest that African Americans with schizophrenia are overrepresented in state hospitals (Lawson, 2008; Barnes, 2004). For example, in Tennessee’s...
state hospitals, 48 percent of those with a diagnosis of schizophrenia are African American, although only 16 percent of the state population is African American (Lawson, 2008; Barnes, 2004).

It is not clear why African Americans are more likely than white Americans to receive this diagnosis. One possibility is that African Americans are more prone to develop schizophrenia. Another is that clinicians from majority groups are unintentionally biased in their diagnoses of African Americans or misread cultural differences as symptoms of schizophrenia (Lawson, 2008; Barnes, 2004).

Yet another explanation for the difference between African Americans and white Americans may lie in the economic sphere. On average, African Americans are more likely than white Americans to be poor; when economic differences are controlled for, the prevalence rates of schizophrenia become closer for the two racial groups. Consistent with the economic explanation is the finding that Hispanic Americans, who also tend to be economically disadvantaged, appear to be much more likely to be diagnosed with schizophrenia than white Americans, although their diagnostic rate is not as high as that of African Americans (Blow et al., 2004).

It also appears that schizophrenia differs from country to country in key ways (Johnson et al., 2014; McLean et al., 2014). Although the overall prevalence of this disorder is stable—around 1 percent—in countries across the world, the course and outcome of the disorder may vary considerably. According to a 10-country study conducted by the World Health Organization (WHO), the 25 million schizophrenic patients who live in developing countries have better recovery rates than schizophrenic patients in Western and other developed countries (Vahia & Vahia, 2008; Jablensky, 2000). The WHO study followed the progress of 467 patients from developing countries (Colombia, India, and Nigeria) over a two-year period and compared it with that of 603 patients from developed countries (the Czech Republic, Denmark, Ireland, Japan, Russia, the United Kingdom, and the United States). As you can see in Figure 14-4, during the course of the two-year study, the schizophrenic patients from the developing countries were more likely than those in the developed countries to recover from their disorder and less likely to have continuous or episodic symptoms, to have impaired social functioning, or to require heavy antipsychotic drugs or hospitalization.

Some clinical theorists believe that these differences partly reflect genetic differences from population to population. However, others argue that the psychosocial environments of developing countries tend to be more supportive and therapeutic than those of developed countries, leading to more favorable outcomes for people with schizophrenia (Vahia & Vahia, 2008; Jablensky, 2000). In developing countries, for example, there may be more family and social support for people with schizophrenia; more relatives and friends available to help care for such people; and less judgmental, critical, and hostile attitudes toward people with schizophrenia. The Nigerian culture, for example, is generally more tolerant of the presence of voices than are Western cultures (Matsumoto & Juang, 2008).
Social Labeling  Many sociocultural theorists believe that the features of schizophrenia are influenced by the diagnosis itself. In their opinion, society assigns the label “schizophrenic” to people who fail to conform to certain norms of behavior. Once the label is assigned, justified or not, it becomes a self-fulfilling prophecy that promotes the development of many schizophrenic symptoms. Certainly sufferers of schizophrenia have attested to the power that labeling has had on their lives:

> Like any worthwhile endeavor, becoming a schizophrenic requires a long period of rigorous training. My training for this unique calling began in earnest when I was six years old. At that time my somewhat befuddled mother took me to the University of Washington to be examined by psychiatrists in order to find out what was wrong with me. These psychiatrists told my mother: “We don’t know exactly what is wrong with your son, but whatever it is, it is very serious. We recommend that you have him committed immediately or else he will be completely psychotic within less than a year.” My mother did not have me committed since she realized that such a course of action would be extremely damaging to me. But after that ominous prophecy my parents began to view and treat me as if I were either insane or at least in the process of becoming that way. Once, when my mother caught me playing with some vile muck I had mixed up—I was seven at the time—she gravely told me, “They have people put away in mental institutions for doing things like that.” Fear was written all over my mother’s face as she told me this. . . . The slightest odd behavior on my part was enough to send my parents into paroxysms of apprehension. My parents’ apprehensions in turn made me fear that I was going insane. . . . My fate had been sealed not by my genes, but by the attitudes, beliefs, and expectations of my parents. . . . I find it extremely difficult to condemn my parents for behaving as if I were going insane when the psychiatric authorities told them that this was an absolute certainty.

(Modrow, 1992, pp. 1–2)

Like this man, people who are labeled schizophrenic may be viewed and treated as “crazy” (Farrelly et al., 2014). Perhaps the expectations of other people subtly encourage the individuals to display psychotic behaviors (Omori, Mori, & White, 2014) and they come to accept their assigned role and learn to play it convincingly.

We have already seen the very real dangers of diagnostic labeling. In the famous Rosenhan (1973) study, discussed in Chapter 3, eight normal people presented themselves at various mental hospitals, complaining that they had been hearing voices utter the words “empty,” “hollow,” and “thud.” They were quickly diagnosed as schizophrenic, and all eight were hospitalized. Although the pseudopatients then dropped all symptoms and behaved normally, they had great difficulty getting rid of the label and gaining release from the hospital.

The pseudopatients reported that staff members were authoritarian in their behavior toward patients, spent limited time interacting with them, and responded curtly and uncaringly to questions. They generally treated patients as though they were invisible. “A nurse unbuttoned her uniform to adjust her brassiere in the presence of an entire ward of viewing men. One did not have the sense that she was being seductive. Rather, she didn’t notice us.” In addition, the pseudopatients described feeling powerless, bored, tired, and uninterested. The deceptive design and possible implications of this study have aroused the emotions of clinicians and researchers, pro and con. The investigation does demonstrate, however, that the
The label “schizophrenic” can itself have a negative effect not just on how people are viewed but also on how they themselves feel and behave.

**Family Dysfunctioning** Theorists have suggested for years that certain patterns of family interactions can promote—or at least sustain—schizophrenic symptoms. One leading theory has focused on *double-bind communications*.

**DO DOUBLE-BIND COMMUNICATIONS CAUSE SCHIZOPHRENIA?** One of the best-known family theories of schizophrenia is the *double-bind hypothesis* (Visser, 2003; Bateson et al., 1956). It says that some parents repeatedly communicate pairs of mutually contradictory messages that place children in so-called double-bind situations: the children cannot avoid displeasing their parents because nothing they do is right. In theory, the symptoms of schizophrenia represent the child’s attempt to deal with the double binds.

Double-bind messages typically consist of a verbal communication (the *primary communication*) and an accompanying—and contradictory—nonverbal communication (the *metacommunication*). If one person says to another, “I’m glad to see you,” yet frowns and avoids eye contact, the two messages are incongruent. According to this theory, a child who is repeatedly exposed to double-bind communications will adopt a special life strategy for coping with them. One strategy, for example, is always to ignore primary communications and respond only to metacommunications: be suspicious of what anyone is saying, wonder about its true meaning, and focus on clues only in gestures or tones. People who increasingly respond to messages in this way may progress toward paranoid schizophrenia.

The double-bind hypothesis is closely related to the psychodynamic notion of a schizophrenogenic mother. When Fromm-Reichmann described schizophrenogenic mothers as overprotective and rejecting at the same time, she was describing someone who is likely to send double-bind messages. Like the schizophrenogenic mother theory, the double-bind hypothesis has been popular in the clinical field over the years, but systematic investigations have not supported it (Chaika, 1990). In one study, clinicians analyzed letters written by parents to their children in the hospital (Ringuette & Kennedy, 1966). One group of parents had children with schizophrenia; the other had children with other disorders. On average, the letters of both groups of parents contained similar degrees of double-bind communication.

**THE ROLE OF FAMILY STRESS** Although the double-bind explanation and certain other family theories of schizophrenia have not received much research support, studies do suggest that schizophrenia, like a number of other mental disorders, is often linked to *family stress* (Cullen et al., 2014; Quah, 2014; Schiffman et al., 2002, 2001). Parents of people with schizophrenia often (1) display more conflict, (2) have more difficulty communicating with one another, and (3) are more critical of and overinvolved with their children than other parents.

Family theorists have long recognized that some families are high in *expressed emotion*—that is, members frequently express criticism, disapproval, and hostility toward each other and intrude on one another’s privacy. People who are trying to recover from schizophrenia are almost four times more likely to relapse if they live with such a family than if they live with one low in expressed emotion (Okpokoro, Adams, & Sampson, 2014). Do such findings mean that family dysfunctioning helps cause and maintain schizophrenia? Not necessarily. It is also the case that people with schizophrenia greatly disrupt family life (Friedrich et al., 2014). In so doing,
they themselves may help produce the family problems that clinicians and researchers continue to observe (Hsiao et al., 2014; McFarlane, 2011).

**R. D. Laing’s View** One final sociocultural explanation of schizophrenia continues to have legions of supporters in the public at large despite the fact that it is controversial and largely untested by research. Famous clinical theorist R. D. Laing (1967, 1964, 1959) combined sociocultural principles with existential philosophy, arguing that schizophrenia is actually a constructive process in which people try to cure themselves of the confusion and unhappiness caused by their social environment. Laing believed that, left alone to complete this process, people with schizophrenia would indeed achieve a healthy outcome.

According to Laing’s existential principles, human beings must be in touch with their true selves in order to give meaning to their lives. Unfortunately, said Laing, this is difficult to do in present-day society. Other people’s expectations, demands, and standards require us to develop a false self rather than a true one. Moreover, Laing believed, some people—those who develop schizophrenia—have especially difficult obstacles to deal with. They experience a lifetime of confusing communications and demands from their families and community. Out of desperation they eventually undertake an inner search for strength and purpose. They withdraw from others and attend increasingly to their own inner cues in order to recover their wholeness as human beings. Laing argued that these people would emerge stronger and less confused if they were allowed to continue this inner search. Instead, as he saw it, society and its clinicians tell these people that they are sick, manipulate them into the role of patient, and subject them to treatments that actually produce further psychotic symptoms. In attempting to cure these people, he said, society dooms them to suspension in an inner world.

Most of today’s theorists reject Laing’s controversial notion that schizophrenia is constructive. For the most part, research simply has not addressed the issue. Laing’s ideas do not lend themselves to empirical research, and the existentialists who
embrace his view typically have little confidence in traditional research approaches (Burston, 2000). It is also worth noting that many people with schizophrenia have themselves rejected the theory.

“Schizophrenia’s a reasonable reaction to an unreasonable society.” It’s great on paper. Poetic, noble, etc. But if you happen to be a schizophrenic, it’s got some not-so-cheery implications. . . . One of R.D.’s worst sins is how blithely and misleadingly he glides over the suffering involved. . . . Pulling off a revolution and ushering in a new era in which truth and beauty reign triumphant seems unlikely when you’re having trouble brushing your teeth or even walking.

(Vonnegut, 1974, p. 91)

PUTTING IT...together

Psychological and Sociocultural Models Lag Behind

Schizophrenia—a bizarre and frightening disorder—was studied intensively throughout the twentieth century. Only since the discovery of antipsychotic drugs, however, have clinicians acquired any practical insight into its course and causes. Theories abounded before that time, but they typically failed to find empirical support and, in fact, contributed to inaccurate stereotyping of people with schizophrenia and their parents.

As they do with most other psychological disorders, clinical theorists now believe that schizophrenia is probably caused by a combination of factors, though researchers have been far more successful in identifying the biological influences than the psychological and sociocultural ones. While biological investigations have closed in on specific genes, abnormalities in brain biochemistry and structure, and even viral infections, most of the psychological and sociocultural research has been able to cite only general factors, such as the roles of family conflict and diagnostic labeling. Clearly, researchers must identify psychological and sociocultural factors with greater precision if we are to gain a full understanding of schizophrenia. The exciting progress now being made in the biological study of schizophrenia is impressive, but it must not blind us to the significant gaps, uncertainties, and confusions that continue to obscure our view.

SUMMING UP

- **THE CLINICAL PICTURE OF SCHIZOPHRENIA** Schizophrenia is a disorder in which personal, social, and occupational functioning deteriorate as a result of disturbed thought processes, distorted perceptions, unusual emotions, and motor abnormalities. Approximately 1 percent of the world’s population suffers from this disorder. pp. 466–469

- **SYMPTOMS OF SCHIZOPHRENIA** The symptoms of schizophrenia fall into three groupings. Positive symptoms include delusions, certain formal thought disorders, hallucinations and other disturbances in perception and attention, and inappropriate affect. Negative symptoms include poverty of speech, restricted affect, loss of volition, and social withdrawal. Schizophrenia may also include psychomotor symptoms, collectively called catatonia in

CLINICAL CHOICES

Now that you’ve read about schizophrenia, try the interactive case study for this chapter. See if you are able to identify Randy’s symptoms and suggest a diagnosis based on his symptoms. What kind of treatment would be most effective for Randy? Go to LaunchPad to access Clinical Choices.

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their extreme form. Schizophrenia usually emerges during late adolescence or early adulthood and tends to progress through three phases: prodromal, active, and residual. pp. 469–476

- **DIAGNOSING SCHIZOPHRENIA** DSM-5 calls for a diagnosis of schizophrenia after symptoms of the disorder continue for six months or more. This diagnosis also requires that people have active symptoms for at least one of those months and show a deterioration from previous levels of functioning. *Type I schizophrenia* is often distinguished from *Type II schizophrenia*. Patients with the former type seem to be dominated by positive symptoms, and those with the latter type seem to display more negative ones. p. 476

- **BIOLOGICAL EXPLANATIONS** The biological explanations of schizophrenia point to genetic, biochemical, structural, and viral causes. The *genetic* view is supported by studies of relatives, twins, adoptees, and genetic linkage, and by molecular biology. The leading *biochemical* explanation holds that the brains of people with schizophrenia, particularly those with largely positive symptoms, may contain an unusually large number of *dopamine* receptors, especially *D-2 receptors*, leading to excessive dopamine activity. Brain-imaging techniques have also detected *abnormal brain structures* in many people with schizophrenia, particularly those with a number of negative symptoms, including *enlarged ventricles* and abnormal blood flow in certain parts of the brain. Finally, some researchers believe that schizophrenia is related to a *virus* that settles in the fetus and perhaps lies quiet until adolescence or young adulthood. pp. 477–483

- **PSYCHOLOGICAL EXPLANATIONS** The leading psychological explanations for schizophrenia come from the psychodynamic, behavioral, and cognitive models. In influential *psychodynamic* explanations, Freud theorized that schizophrenia involves *regression* to a state of primary narcissism and efforts to restore ego control, and Fromm-Reichmann proposed that *schizophrenogenic mothers* help produce schizophrenia. Contemporary psychodynamic theorists, however, ascribe the disorder to a combination of biological and psychodynamic factors. *Behaviorists* suggest that people with schizophrenia fail to learn to attend to appropriate social cues. And *cognitive theorists* contend that when people with schizophrenia try to understand their strange biological sensations, they develop delusional thinking. None of these theories have received compelling research support. pp. 483–485

- **SOCIOCULTURAL EXPLANATIONS** One sociocultural explanation holds that *multicultural* differences may influence the prevalence and character of schizophrenia, as well as recovery from this disorder, both within the United States and around the world. Another sociocultural explanation says that society expects people who are *labeled* as having schizophrenia to behave in certain ways and that these expectations actually lead to further symptoms. Other sociocultural theorists point to *family dysfunctioning*—including such interactions as *double-bind communications*—as a cause of schizophrenia. Such specific family features have not been implicated by research, although general *family stress and conflict* have repeatedly been linked to schizophrenia. Finally, the theorist R. D. Laing has presented schizophrenia as a *constructive* process by which people try to cure themselves of the confusion and unhappiness caused by their society and family. pp. 485–490

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to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
During [Cathy’s] second year in college . . . her emotional troubles worsened . . . . Her thoughts about sex gradually bloomed into a fantasy about Steve Martin, the comedian. Unable to sleep through the night, she would awaken at four a.m. and go for walks, and at times, it seemed that Steve Martin was there on campus, stalking her. “I thought he was in love with me and was running through the bushes just out of sight,” she says. “He was looking for me.”

. . . The breaking point came one evening when she threw a glass object against the wall in her dorm room. “I didn’t clean it up, but instead was walking around in it. I was, you know, taking the glass out of my feet. I was completely out of my mind.” . . . She was . . . informed that she suffered from a chemical imbalance in the brain, and [was] put on Haldol and lithium.

For the next sixteen years, Cathy cycled in and out of hospitals. She “hated the meds”—Haldol stiffened her muscles and caused her to drool, while the lithium made her depressed—and often she would abruptly stop taking them. . . . The problem was that off the drugs, she would “start to decompensate and become disorganized.”

In early 1994, she was hospitalized for the fifteenth time. She was seen as chronically mentally ill, occasionally heard voices now . . . and was on a cocktail of drugs: Haldol, Ativan, Tegretol, Halcion, and Cogentin, the last drug an antidote to Haldol’s nasty side effects. But after she was released that spring, a psychiatrist told her to try Risperdal, a new antipsychotic that had just been approved by the FDA. “Three weeks later, my mind was much clearer,” she says. “The voices were going away. I got off the other meds and took only this one drug. I got better. I could start to plan. I wasn’t talking to the devil anymore. Jesus and God weren’t battling it out in my head.” Her father put it this way: “Cathy is back.” . . .

She went back to school and earned a degree in radio, film, and television. . . . In 1998, she began dating the man she lives with today. . . . In 2005, she took a part-time job. . . . Still, she remains on SSDI (Social Security Disability Insurance)—“I am a kept woman,” she jokes—and although there are many reasons for that, she believes that Risperdal, the very drug that has helped her so much, nevertheless has proven to be a barrier to full-time work. Although she is usually energetic by the early afternoon, Risperdal makes her so sleepy that she has trouble getting up in the morning. The other problem is that she has always had trouble getting along with other people, and Risperdal exacerbates that problem, she says. . . . “The drugs may take care of aggression and anxiety and some paranoia, those sorts of symptoms, but they don’t help with the empathy that helps you get along with people.”

Risperdal has also taken a physical toll. . . . She has . . . developed some of the metabolic problems, such as high cholesterol, that the atypical antipsychotics regularly cause. “I can go toe-to-toe with an old lady with a recital of my physical problems,” she says. “My feet, my bladder, my heart, my sinuses, the weight gain—I have it all.” . . . But she can’t do well without Risperdal . . .

Such has been her life’s course on medications. Sixteen terrible years, followed by fourteen pretty good years on Risperdal. She believes that this drug is essential to her mental health today, and indeed, she could be seen as a local poster child for
promoting the wonders of that drug. Still, if you look at the long-term course of her illness . . . you have to ask: Is hers a story of a life made better by our drug-based . . . care for mental disorders, or a story of a life made worse? . . .

Cathy believes that this is a question that psychiatrists never contemplate.

“They don’t have any sense about how these drugs affect you over the long term. They just try to stabilize you for the moment, and look to manage you from week to week, month to month. That’s all they ever think about.”

(Whitaker, 2010)

In many ways, Cathy’s clumsy journey is typical of that of hundreds of thousands of people with schizophrenia and other severe mental disorders. To be sure, there are other patients whose efforts to overcome such disorders go more smoothly. And at the other end of the spectrum, there are many whose struggles against severe mental dysfunctioning never come close to Cathy’s level of success. But in between, there are the Cathys.

This is today’s treatment picture for schizophrenia and other severe mental disorders. For some, it involves miraculous triumphs; for others, modest success; and for still others, heartbreaking failure. Treatment is typically characterized by medications, medication-linked health problems, compromised lifestyles, and a mixture of hope and frustration. Despite this, today’s treatment outlook for schizophrenia and other severe mental disorders is vastly superior to that of past years. In fact, for much of human history, people with such disorders were considered beyond help. Few returned to any semblance of normal or functional living. Indeed, few returned home from the institutions to which they were sent.

Schizophrenia is still extremely difficult to treat, but clinicians are much more successful at doing so today than they were in the past. Much of the credit goes to antipsychotic drugs—imperfect, troubling, and even dangerous though they may be. These medications help many people with schizophrenia and other psychotic disorders to think clearly and profit from psychotherapies that previously would have had little effect for them (Miller et al., 2012).

As you will see, each of the models offers treatments for schizophrenia, and all have been influential at one time or another. However, a mere description of the different approaches cannot convey the pain suffered by those with this disorder as the various methods of treatment evolved over the years. People with schizophrenia have been subjected to more mistreatment and indifference than perhaps any other group of patients. Even today, at least half of them do not receive adequate care (Burns & Drake, 2011; Gill, 2010). To better convey the plight of people with schizophrenia, this chapter will depart from the usual format and discuss the treatments from a historical perspective.

As you saw in Chapter 14, throughout much of the twentieth century the label “schizophrenia” was assigned to most people with psychosis. However, clinical theorists now realize that many people with psychotic symptoms are instead manifesting a severe form of bipolar disorder or major depressive disorder and that such people were in past times inaccurately diagnosed with schizophrenia (Lake, 2012). Thus, our discussions of past treatments for schizophrenia, particularly the failures of institutional care, are as applicable to those other severe mental disorders as they are to schizophrenia. And our discussions about current approaches to schizophrenia, such as the community mental health movement, often apply to other severe mental disorders as well.
Institutional Care in the Past

For more than half of the twentieth century, most people diagnosed with schizophrenia were institutionalized in a public mental hospital. Because patients with schizophrenia did not respond to traditional therapies, the primary goals of these hospitals were to restrain them and give them food, shelter, and clothing. Patients rarely saw therapists and generally were neglected. Many were abused. Oddly enough, this state of affairs unfolded in an atmosphere of good intentions.

As you read in Chapter 1, the move toward institutionalization in hospitals began in 1793 when French physician Philippe Pinel “unchained the insane” at La Bicêtre asylum and began the practice of “moral treatment.” For the first time in centuries, patients with severe disturbances were viewed as human beings who should be cared for with sympathy and kindness. As Pinel’s ideas spread throughout Europe and the United States, they led to the creation of large mental hospitals rather than asylums to care for those with severe mental disorders (Goshen, 1967).

These new mental hospitals, typically located in isolated areas where land and labor were cheap, were meant to protect patients from the stresses of daily life and offer them a healthful psychological environment in which they could work closely with therapists (Grob, 1966). States throughout the United States were even required by law to establish public mental institutions, state hospitals, for patients who could not afford private ones.

Eventually, however, the state hospital system encountered serious problems. Between 1845 and 1955, nearly 300 state hospitals opened in the United States, and the number of hospitalized patients on any given day rose from 2,000 in 1845 to nearly 600,000 in 1955. During this expansion, wards became overcrowded, admissions kept rising, and state funding was unable to keep up. Too many aspects of treatment became the responsibility of nurses and attendants, whose knowledge and experience at that time were limited.

The priorities of the public mental hospitals, and the quality of care they provided, changed over those 110 years. In the face of overcrowding and understaffing, the emphasis shifted from giving humanitarian care to keeping order. In a throwback to the asylum period, difficult patients were restrained, isolated, and punished;
individual attention disappeared. Patients were transferred to back wards, or chronic wards, if they failed to improve quickly (Bloom, 1984). Most of the patients on these wards suffered from schizophrenia (Häfner & an der Heiden, 1988). The back wards were human warehouses filled with hopelessness. Staff members relied on straitjackets and handcuffs to deal with difficult patients. More “advanced” forms of treatment included medical approaches such as lobotomy (see PsychWatch below).

**PsychWatch**

Lobotomy: How Could It Happen?

In 1935, a Portuguese neurologist named Egas Moniz performed a revolutionary new surgical procedure, which he called a prefrontal leucotomy, on a patient with severe mental dysfunctioning (Raz, 2013). The procedure, the first form of lobotomy, consisted of drilling two holes in either side of the skull and inserting an instrument resembling an icepick into the brain tissue to cut or destroy nerve fibers. Moniz believed that severe abnormal thinking—such as that on display in schizophrenia, depression, and obsessive-compulsive disorder—was the result of nerve pathways that carried such thoughts from one part of the brain to another. By cutting these pathways, Moniz believed, he could stop the abnormal thinking in its tracks and restore normal mental functioning.

A year after his first leucotomy, Moniz published a monograph in Europe describing his successful use of the procedure on 20 patients (Raz, 2013). An American neurologist, Walter Freeman, read the monograph, called the procedure to the attention of the medical community in the United States, performed the procedure on many patients, and became its foremost supporter. In 1947 he developed a second kind of lobotomy called the transorbital lobotomy, in which the surgeon inserted a needle into the brain through the eye socket and rotated it in order to destroy the brain tissue.

From the early 1940s through the mid-1950s, the lobotomy was viewed as a miracle cure by most doctors and became a mainstream part of psychiatry (Levinson, 2011). An estimated 50,000 people in the United States alone eventually received lobotomies (Johnson, 2005).

We now know that the lobotomy was hardly a miracle treatment. Far from “curing” people with mental disorders, the procedure left thousands upon thousands extremely withdrawn, subdued, and even stuporous. Why then was the procedure so enthusiastically accepted by the medical community in the 1940s and 1950s? Neuroscientist Elliot Valenstein (1986) points first to the extreme overcrowding in mental hospitals at the time. This crowding was making it difficult to maintain decent standards in the hospitals. Valenstein also points to the personalities of the inventors of the procedure as important factors. Although these individuals were gifted and dedicated physicians—in 1949 Moniz was awarded the Nobel Prize for his work—Valenstein believes that their professional ambitions led them to move too quickly and boldly in applying the procedure.

The prestige of Moniz and Freeman were so great and the field of neurology was so small that their procedures drew little criticism. Physicians may also have been misled by the seemingly positive findings of early studies of the lobotomy, which, as it turned out, were not based on sound methodology (Cooper, 2014).

By the 1950s, better studies revealed that in addition to having a fatality rate of 1.5 to 6 percent, lobotomies could cause serious problems such as brain seizures, huge weight gain, loss of motor coordination, partial paralysis, incontinence, endocrine malfunctions, and very poor intellectual and emotional responsiveness (Lapidus et al., 2013). The discovery of effective antipsychotic drugs helped put an end to this inhumane treatment for mental disorders (Krack et al., 2010).

Today’s psychosurgical procedures are greatly refined and hardly resemble the lobotomies of 60 years back. Moreover, the procedures are considered experimental and are used only as a last resort: they are reserved for the most severe cases of disorders such as OCD and depression (Nair et al., 2014; Lapidus et al., 2013). Even so, many professionals believe that any kind of surgery that destroys brain tissue is inappropriate and perhaps unethical and that it keeps alive one of the clinical field’s most shameful and ill-advised efforts at cure.
Many patients not only failed to improve under these conditions but also developed additional symptoms, apparently as a result of institutionalization itself (see InfoCentral on the next page). The most common pattern of decline was called the social breakdown syndrome: extreme withdrawal, anger, physical aggressiveness, and loss of interest in personal appearance and functioning (Oshima et al., 2005). Often more troublesome than patients’ original symptoms, this new syndrome made it impossible for patients to return to society even if they somehow recovered from the symptoms that had first brought them to the hospital.

Institutional Care Takes a Turn for the Better

In the 1950s, clinicians developed two institutional approaches that finally brought some hope to patients who had lived in institutions for years: milieu therapy, based on humanistic principles, and the token economy program, based on behavioral principles. These approaches particularly helped improve the personal care and self-image of patients, problem areas that had been worsened by institutionalization. The approaches were soon adapted by many institutions and are now standard features of institutional care.

Milieu Therapy

In the opinion of humanistic theorists, institutionalized patients deteriorate because they are deprived of opportunities to exercise independence, responsibility, and positive self-regard and to engage in meaningful activities. Thus the premise of milieu therapy is that institutions cannot be of help to patients unless they can somehow create a social climate, or milieu, that promotes productive activity, self-respect, and individual responsibility.

The pioneer of this approach was Maxwell Jones, a London psychiatrist who in 1953 converted a ward of patients with various psychological disorders into a therapeutic community. The patients were referred to as “residents” and were regarded as capable of running their own lives and making their own decisions. They participated in community government, working with staff members to establish rules and determine sanctions. Residents and staff members alike were valued as important therapeutic agents. The atmosphere was one of mutual respect, support, and openness. Patients could also take on special projects, jobs, and recreational activities. In short, their daily schedule was designed to resemble life outside the hospital.

Milieu-style programs have since been set up in institutions throughout the Western world. The programs vary from setting to setting, but at a minimum, staff members try to encourage interactions (especially group interactions) between patients and staff, to keep patients active, and to raise their expectations about what they can accomplish.

Research over the years has shown that people with schizophrenia and other severe mental disorders in milieu hospital programs often improve and that they leave the hospital at higher rates than patients in programs offering primarily custodial care (Paul, 2000; Paul & Lentz, 1977). Many remain impaired, however, and must live in sheltered settings after their release. Despite its limitations, milieu therapy continues to be practiced in many institutions, often combined with other hospital approaches (Günter, 2005). Moreover, you will see later in this chapter that many of today’s halfway houses and other community programs for people with severe mental disorders are run in accordance with the same principles of resident self-government and work schedules that have proved effective in hospital milieu programs.

milieu therapy A humanistic approach to institutional treatment based on the premise that institutions can help patients recover by creating a climate that promotes self-respect, responsible behavior, and meaningful activity.
Prior to the 1960s, most people with severe mental disorders resided in institutions until they improved. Sadly, many were never released. Today, a much smaller number of people are institutionalized. Moreover, the nature and patient census of psychiatric institutionalization has changed significantly over the past 50 years.

### INSTITUTIONS FOR PSYCHOLOGICAL CARE

#### HISTORY OF INSTITUTIONAL CARE

- **First mental asylum founded in Egypt.**
- Bethlehem Hospital in London becomes an asylum.
- First American asylum founded in Williamsburg, VA.
- Chief physician Philippe Pinel unchains patients at La Bicêtre asylum in Paris.
- New York passes the first U.S. law for the creation of state psychiatric hospitals.
- Approximately 300 state psychiatric hospitals are built throughout the U.S.
- Deinstitutionalization of state psychiatric hospitals begins.
- Community mental health movement begins.
- Institutions add outpatient services.
- Prisons and nursing homes experience surge of individuals with mental disorders.

#### INSTITUTIONAL CARE TODAY

In the past there was one kind of psychiatric institution. Today there are several kinds of institutions, often specializing in particular age groups and problems.

- V.A. Medical Centers: 130 facilities
- State & County Psychiatric Hospitals: 241 facilities
- Private Psychiatric Hospitals: 256 facilities
- Medical Hospitals with Psychiatric Floors: 538 facilities
- Teen Residential Treatment Centers: 673 facilities

#### Who receives inpatient mental health care in the U.S. each year?

- **Total Adults:** 1.9 million
- **Total Teens:** 588,000

#### How long are people hospitalized, on average?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Average Number of Days</th>
</tr>
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<tbody>
<tr>
<td>Children</td>
<td>15</td>
</tr>
<tr>
<td>Adolescents</td>
<td>9</td>
</tr>
<tr>
<td>Young &amp; Middle-Aged Adults</td>
<td>7</td>
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<tr>
<td>Elderly Persons</td>
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</tbody>
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#### INSTITUTIONAL ALTERNATIVES

Many people who would have been placed in psychiatric institutions in the past now reside in other settings, such as nursing homes and prisons where mental health care is typically minimal.

#### Deinstitutionalization

<table>
<thead>
<tr>
<th>Year</th>
<th>State Hospitals</th>
<th>Inpatients each day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>300,000</td>
<td>600,000</td>
</tr>
<tr>
<td>2014</td>
<td>213,000</td>
<td>600,000</td>
</tr>
</tbody>
</table>

#### Prison Inmates with Mental Health Problems

- **Total inmates with mental health problems:** 55%
- Hispanic Americans: 56%
- African Americans: 51%
- White Americans: 41%
The Token Economy

In the 1950s, behaviorists had little status in mental institutions and were permitted to work only with patients whose problems seemed hopeless. Among the “hopeless” were patients diagnosed with schizophrenia. Through years of experimentation, behaviorists discovered that the systematic use of operant conditioning techniques on hospital wards could help change the behaviors of these patients (Ayllon, 1963; Ayllon & Michael, 1959). Programs that apply these techniques are called token economy programs.

In token economies, patients are rewarded when they behave acceptably and are not rewarded when they behave unacceptably. The immediate rewards for acceptable behavior are often tokens that can later be exchanged for food, cigarettes, hospital privileges, and other desirable items, all of which compose a “token economy.” Acceptable behaviors likely to be included are caring for oneself and for one’s possessions (making the bed, getting dressed), going to a work program, speaking normally, following ward rules, and showing self-control.

How Effective Are Token Economy Programs? Researchers have found that token economies do help reduce psychotic and related behaviors (Swartz et al., 2012; Dickerson et al., 2005). In one early program, Gordon Paul and Robert Lentz (1977) set up a hospital token economy for 28 patients diagnosed with chronic schizophrenia, most of whom improved greatly. After four and a half years, 98 percent of the patients had been released, mostly to sheltered-care facilities, compared with 71 percent of patients treated in a milieu program and 45 percent of patients who received custodial care only.

What Are the Limitations of Token Economies? Some clinicians have voiced reservations about the claims made regarding token economy programs. One problem is that many token economy studies, unlike Paul and Lentz’s, are uncontrolled. When administrators set up a token economy, they usually bring all ward patients into the program rather than dividing the ward into a token economy group and a control group. As a result, patients’ improvements can be compared only with their own past behaviors—a comparison that may be misleading. Changes in the physical setting, for example, or a general increase in staff attention could be causing patients’ improvement, rather than the token economy.

Many clinicians have also raised ethical and legal concerns. If token economy programs are to be effective, administrators need to control the important rewards in a patient’s life, perhaps including such basic ones as food and a comfortable bed. But aren’t there some things in life to which all human beings are entitled? Court decisions have now ruled that patients do indeed have certain basic rights that clinicians cannot violate, regardless of the positive goals of a treatment program. They have a right to food, storage space, and furniture, as well as freedom of movement.

Still other clinicians have questioned the quality of the improvements made under token economy programs. Are behaviorists changing a patient’s psychotic thoughts and perceptions or simply improving the patient’s ability to imitate normal behavior? This issue is illustrated by the case of a middle-aged man named John, who had the delusion that he was the U.S. government (Comer, 1973). Whenever he spoke, he spoke as the government. “We are happy to see you. . . . We need people like you in our service. . . . We are carrying out our activities in John’s body.” When John’s hospital ward converted to using a token economy, the staff members targeted his delusional statements and required him to identify himself properly to earn tokens. If he called himself John, he received tokens; if he described himself as the government, he received nothing. After a few months on the token economy program, John stopped referring to himself as the government. When asked his name, he would say, “John.” Although staff members were
understandably pleased with his improvement, John himself had a different view of the situation. In a private discussion he said:

> *We’re tired of it. Every damn time we want a cigarette, we have to go through their bullshit. “What’s your name? . . . Who wants the cigarette? . . . Where is the government?” Today, we were desperate for a smoke and went to Simpson, the damn nurse, and she made us do her bidding. “Tell me your name if you want a cigarette. What’s your name?” Of course, we said, “John.” We needed the cigarettes. But we don’t have time for this nonsense. We’ve got business to do, international business, laws to change, people to recruit. And these people keep playing their games.*

(Comer, 1973)

Critics of the behavioral approach would argue that John was still delusional and therefore as psychotic as before. Behaviorists, however, would argue that at the very least, John’s judgment about the consequences of his behavior had improved. Learning to keep his delusion to himself might even be a step toward changing his private thinking.

Last, it has often been difficult for patients to make a satisfactory transition from hospital token economy programs to community living. In an environment where rewards are contingent on proper conduct, proper conduct becomes contingent on continued rewards. Some patients who find that the real world doesn’t reward them so concretely abandon their newly acquired behaviors.

Nevertheless, token economies have had a most important effect on the treatment of people with schizophrenia and other severe mental disorders. They were among the first hospital treatments that actually changed psychotic symptoms and got chronic patients moving again. These programs are no longer as popular as they once were, but they are still used in many mental hospitals, usually along with medication, and in many community residences as well (Kopelowicz, Liberman, & Zarate, 2008). The approach has also been applied to other clinical problems, including intellectual developmental disorder, delinquency, and hyperactivity, as well as in other fields, such as education and business (Spiegler & Guevremont, 2003).

### Antipsychotic Drugs

Milieu therapy and token economy programs helped improve the gloomy outlook for patients diagnosed with schizophrenia, but it was the discovery of antipsychotic drugs in the 1950s that truly revolutionized treatment for schizophrenia. These drugs eliminate many of its symptoms and today are almost always a part of treatment.

The discovery of antipsychotic medications dates back to the 1940s, when researchers developed the first antihistamine drugs to combat allergies. The French surgeon Henri Laborit soon discovered that one group of antihistamines, phenothiazines, could also be used to help calm patients about to undergo surgery. After experimenting with several phenothiazine antihistamines and becoming most impressed with one called chlorpromazine, Laborit reported, “It provokes not any loss of consciousness, not any change in the patient’s mentality but a slight tendency to sleep and above all ‘disinterest’ for all that goes on around him.”

Laborit suspected that chlorpromazine might also have a calming effect on people with severe psychological disorders. Psychiatrists Jean Delay and Pierre
Deniker (1952) tested the drug on six patients with psychotic symptoms and did indeed observe a sharp reduction in their symptoms. In 1954, chlorpromazine was approved for sale in the United States as an antipsychotic drug under the trade name Thorazine (Adams et al., 2014).

Since the discovery of the phenothiazines, other kinds of antipsychotic drugs have been developed. The ones developed throughout the 1960s, 1970s, and 1980s are now referred to as "conventional" antipsychotic drugs in order to distinguish them from the "second-generation" antipsychotics (also called "atypical" antipsychotic drugs) that have been developed in recent years. The conventional drugs are also known as neuroleptic drugs because they often produce undesired movement effects similar to the symptoms of neurological diseases. Among the best known conventional drugs are thioridazine (Mellaril), fluphenazine (Prolixin), trifluoperazine (Stelazine), and haloperidol (Haldol). As you saw in Chapter 14, antipsychotic drugs reduce psychotic symptoms at least in part by blocking excessive activity of the neurotransmitter dopamine, particularly at the brain's dopamine D-2 receptors (Chun et al., 2014; During et al., 2014).

How Effective Are Antipsychotic Drugs?

Research has shown that antipsychotic drugs reduce symptoms in at least 65 percent of patients diagnosed with schizophrenia (Advokat et al., 2014; Ellenbroek, 2011; Geddes et al., 2011). Moreover, in direct comparisons the drugs appear to be a more effective treatment for schizophrenia than any of the other approaches used alone, such as psychotherapy, milieu therapy, or electroconvulsive therapy.

For patients helped by the drugs, the medications bring about clear improvement within a period of weeks and maximum improvement within six months (Rabinowitz et al., 2014). However, symptoms may return if the patients stop taking the drugs too soon (Razali et al., 2014; Barnes & Marder, 2011). In one study, when the antipsychotic medications of people with chronic schizophrenia were changed to a placebo after 5 years, 75 percent of the patients relapsed within a year, compared with 33 percent of similar patients who continued to receive medication (Sampath et al., 1992).
As you read in Chapter 14, antipsychotic drugs, particularly the conventional ones, reduce the positive symptoms of schizophrenia (such as hallucinations and delusions) more completely, or at least more quickly, than the negative symptoms (such as restricted affect, poverty of speech, and loss of volition) (Millan et al., 2014; Stroup et al., 2012). Correspondingly, people whose symptoms are largely positive generally have better rates of recovery from schizophrenia than those with predominantly negative symptoms.

Although antipsychotic drugs are now widely accepted, patients often dislike the powerful effects of the drugs—both intended and unintended—and some refuse to take them (Liersch-Sumskis et al., 2014; Mohamed et al., 2014).

The Unwanted Effects of Conventional Antipsychotic Drugs

In addition to reducing psychotic symptoms, the conventional antipsychotic drugs sometimes produce disturbing movement problems (Advokat et al., 2014; Stroup et al., 2012). These effects are called extrapyramidal effects because they appear to be caused by the drugs’ impact on the extrapyramidal areas of the brain, areas that help control motor activity. These undesired effects include Parkinsonian and related symptoms, neuroleptic malignant syndrome, and tardive dyskinesia.

Parkinsonian and Related Symptoms

The most common extrapyramidal effects are Parkinsonian symptoms, reactions that closely resemble the features of the neurological disorder Parkinson's disease. At least half of patients on conventional antipsychotic drugs have muscle tremors and muscle rigidity at some point in their treatment; they may shake, move slowly, shuffle their feet, and show little facial expression (Geddes et al., 2011; Haddad & Mattay, 2011). Some also have related symptoms such as movements of the face, neck, tongue, and back; and a number experience significant restlessness and discomfort in their limbs, which causes them to move their arms and legs continually in search of relief.

The Parkinsonian and related symptoms seem to be the result of medication-induced reductions of dopamine activity in the basal ganglia and the substantia nigra, parts of the brain that coordinate movement and posture (Advokat et al., 2014). In most cases, the symptoms can be reversed if the person takes an anti-Parkinsonian drug along with the antipsychotic drug. Alternatively, clinicians may have to reduce the dose of the antipsychotic drug or stop it altogether.

Neuroleptic Malignant Syndrome

In as many as 1 percent of patients, particularly those who are elderly, conventional antipsychotic drugs produce neuroleptic malignant syndrome, a severe, potentially fatal reaction consisting of muscle rigidity, fever, altered consciousness, and improper functioning of the autonomic nervous system (Haddad & Mattay, 2011). If a person is identified as having the syndrome, he or she is immediately taken off the drug and each neuroleptic symptom is treated medically. In addition, the patient may be given dopamine-enhancing drugs.

Tardive Dyskinesia

Whereas most undesired drug effects appear within days or weeks, a reaction called tardive dyskinesia (meaning “late-appearing movement disorder”) does not usually unfold until after a person has taken conventional antipsychotic drugs for more than a year. Sometimes it does not even appear until after the medications are stopped (Advokat et al., 2014). This syndrome may
Treatments for Schizophrenia and Other Severe Mental Disorders

include involuntary writhing or ticlike movements of the tongue, mouth, face, or whole body; involuntary chewing, sucking, and lip smacking; and jerky movements of the arms, legs, or entire body. It is sometimes accompanied by memory difficulties (Haddad & Mattay, 2011).

Most cases of tardive dyskinesia are mild and involve a single symptom, such as tongue flicking; however, some are severe and include such features as continual rocking back and forth, irregular breathing, and grotesque twisting of the face and body. It is believed that more than 10 percent of the people who take conventional antipsychotic drugs for an extended time develop tardive dyskinesia to some degree, and the longer the drugs are taken, the higher the risk becomes (Achalia, 2014; Advokat et al., 2014). Patients over 50 years of age seem to be at greater risk.

Tardive dyskinesia can be difficult, sometimes impossible, to eliminate (Combs et al., 2008). If it is discovered early and the conventional drugs are stopped immediately, it eventually disappears in most cases. Early detection, however, is elusive because some of the symptoms are similar to psychotic symptoms. Clinicians may easily overlook them, continue to administer the drugs, and unintentionally create a more serious case of tardive dyskinesia. Researchers do not fully understand why conventional antipsychotic drugs cause tardive dyskinesia; however, they suspect that, once again, the problem is related to the drugs’ effect on dopamine receptors in the basal ganglia and substantia nigra (Advokat et al., 2014).

How Should Conventional Antipsychotic Drugs Be Prescribed? Today clinicians are more knowledgeable and more cautious about prescribing conventional antipsychotic drugs than they were in the past (see Table 15-1). Previously, when patients did not improve with such a drug, their clinician would keep increasing the dose; today a clinician will typically add an additional drug to achieve a synergistic effect (called polypharmacy), stop the drug and try an alternative one, or stop all medications (Li et al., 2014; Roh et al., 2014; Leucht, Correll, & Kane, 2011). Today’s clinicians also try to prescribe the lowest effective doses for each patient and to gradually reduce medications weeks or months after the patient begins functioning normally (Barnes & Marder, 2011). Research indicates that, for many such patients, reductions of this kind do not lead to a return of symptoms (Takeuchi et al., 2014). For others, however, only small reductions in dosage are possible, and treatment for these patients typically involves the long-term use of carefully monitored high dosages of antipsychotic drugs (Deutschenbaur et al., 2014).

Newer Antipsychotic Drugs

Chapter 14 noted that second-generation (“atypical”) antipsychotic drugs have been developed. The most widely used of these newer drugs are clozapine (trade name Clozaril), risperidone (Risperdal), olanzapine (Zyprexa), quetiapine (Seroquel), ziprasidone (Geodon), and aripiprazole (Abilify). As you have read, the drugs were called atypical initially because their biological operation differs from that of the conventional antipsychotic medications: the atypicals are received at fewer dopamine D-2 receptors and more D-1, D-4, and serotonin receptors than the others (Advokat et al., 2014; Nord & Farde, 2011).

extrapyramidal effects Unwanted movements, such as severe shaking, bizarre-looking grimaces, twisting of the body, and extreme restlessness, sometimes produced by conventional antipsychotic drugs.

tardive dyskinesia Extrapyramidal effects involving involuntary movements that some patients have after they have taken conventional antipsychotic drugs for an extended time.

Table 15-1

<table>
<thead>
<tr>
<th>Class/Generic Name</th>
<th>Trade Name</th>
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<tbody>
<tr>
<td>Conventional antipsychotics</td>
<td></td>
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<tr>
<td>Chlorpromazine</td>
<td>Thorazine</td>
</tr>
<tr>
<td>Triflupromazine</td>
<td>Vesprin</td>
</tr>
<tr>
<td>Thioridazine</td>
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<tr>
<td>Mesoridazine</td>
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<tr>
<td>Trifluoperazine</td>
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<tr>
<td>Fluphenazine</td>
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</tr>
<tr>
<td>Acetophenazine</td>
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<tr>
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<tr>
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<tr>
<td>Molindone hydrochloride</td>
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<td>Pimozide</td>
<td>Orap</td>
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<td>Second-generation antipsychotics</td>
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<td>Quetiapine</td>
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<td>Aripiprazole</td>
<td>Abilify</td>
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<td>Iloperidone</td>
<td>Fanapt</td>
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<td>Lurasidone</td>
<td>Latuda</td>
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<tr>
<td>Paliperidone</td>
<td>Invega</td>
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Second-generation antipsychotic drugs appear to be more effective than the conventional drugs (Advokat et al., 2014; Bianchini et al., 2014; Geddes et al., 2011). Clozapine is often the most effective such drug, but the other second-generation drugs also bring significant change for many people. Recall, for example, Cathy, the woman whom we met at the beginning of this chapter, and how well she responded to risperidone after years of doing poorly on conventional antipsychotic drugs. Unlike the conventional drugs, the new drugs reduce not only the positive symptoms of schizophrenia, but also the negative ones (Millan et al., 2014; Waddington et al., 2011). Another major benefit of the second-generation antipsychotic drugs is that they cause fewer extrapyramidal symptoms and seem less likely to produce tardive dyskinesia (Abouzaid et al., 2014; Geddes et al., 2011) (see Figure 15-1).

Given such advantages, more than half of all medicated patients with schizophrenia now take the second-generation drugs, which are considered the first line of treatment for the disorder (Barnes & Marder, 2011; Combs et al., 2008). Many patients with bipolar or other severe mental disorders also seem to be helped by several of these antipsychotic drugs. Studies indicate, for example, that olanzapine, prescribed alone or in combination with mood-stabilizing drugs, is very effective in cases of acute mania (Advokat et al., 2014). Clinicians use the same general prescription strategies for the second-generation antipsychotic drugs as they do for the conventional antipsychotic drugs.

Yet the second-generation antipsychotic drugs have serious problems as well (Barnes & Marder, 2011; Haddad & Mattay, 2011; Waddington et al., 2011). For example, people who use one of these drugs, clozapine, have around a 1 percent risk of developing agranulocytosis, a life-threatening drop in white blood cells (other atypical antipsychotic drugs do not produce this undesired effect). Patients who take clozapine must therefore have frequent blood tests so that agranulocytosis can be spotted early and the drug stopped. In addition, some of the second-generation antipsychotic drugs may cause weight gain, particularly among women; dizziness; metabolic problems; and significant elevations in blood sugar, as we also saw in the case of Cathy (Thibaut, 2014). Also, research indicates that although these medications do often reduce the symptoms of psychosis, they, like the conventional antipsychotics, typically produce only modest changes in overall life satisfaction among those who have chronic schizophrenia (Fervaha et al., 2014).

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**Between the Lines**

**Easy Targets**

- Adults with schizophrenia are at far greater risk of dying by homicide than other people.
- In the United States, more than one-third of adults with schizophrenia are victims of violent crime.
- In the United States, adults with schizophrenia are 14 times more likely to be victims of violent crime than to be arrested for committing such a crime.

(Kooyman & Walsh, 2011; Cuvelier, 2002; Hiroeh et al., 2001)

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**Figure 15-1**

**The Side Effect Advantage**

Conventional antipsychotic drugs are much more likely than second-generation antipsychotic drugs to produce undesired extrapyramidal symptoms. (A) The dose-response curve for conventional drugs shows that, beginning with low doses of the drugs, extrapyramidal side effects emerge and keep intensifying right along with increases in the drug doses. (B) In contrast, the dose-response curve for second-generation antipsychotic drugs indicates that extrapyramidal side effects typically do not even appear until a patient is taking relatively high doses of the drugs. (Information from Casey, 1995, p. 107.)
Before the discovery of antipsychotic drugs, psychotherapy was not really an option for people with schizophrenia. Most were too far removed from reality to profit from it. Only a handful of therapists, apparently blessed with extraordinary patience and skill, specialized in the psychotherapeutic treatment of this disorder and reported a measure of success (Will, 1967, 1961; Sullivan, 1962, 1953; Fromm-Reichmann, 1950, 1948, 1943). These therapists believed that the first task of such therapy was to win the trust of patients with schizophrenia and build a close relationship with them.

Well-known clinical theorist and therapist Frieda Fromm-Reichmann, for example, would initially tell her patients that they could continue to exclude her from their private world and hold onto their disorder as long as they wished. She reported that eventually, after much testing and acting out, the patients would accept, trust, and grow attached to her and begin to talk to her about their problems. Case studies seemed to attest to the effectiveness of such approaches and to the importance of trust and emotional bonding in treatment. Here a recovered woman tells her therapist how she had felt during their early interactions:

> At the start, I didn’t listen to what you said most of the time but I watched like a hawk for your expression and the sound of your voice. After the interview, I would add all this up to see if it seemed to show love. The words were nothing compared to the feelings you showed. I sense that you felt confident I could be helped and that there was hope for the future. . . .

> The problem with schizophrenics is that they can’t trust anyone. They can’t put their eggs in one basket. The doctor will usually have to fight to get in no matter how much the patient objects. . . .

> Loving is impossible at first because it turns you into a helpless little baby. The patient can’t feel safe to do this until he is absolutely sure the doctor understands what is needed and will provide it.

(Hayward & Taylor, 1965)

Today, psychotherapy is successful in many more cases of schizophrenia (Miller et al., 2012; Swartz et al., 2012). By helping to relieve thought and perceptual disturbances, antipsychotic drugs allow people with schizophrenia to learn about their disorder, participate actively in therapy (see MindTech on the next page), think more clearly about themselves and their relationships, make changes in their behavior, and cope with stressors in their lives. The most helpful forms of psychotherapy include cognitive-behavioral therapy and two sociocultural interventions—family therapy and social therapy. Often the various approaches are combined.

**Cognitive-Behavioral Therapy**

As you read in Chapter 14, the cognitive explanation for schizophrenia starts with the premise that people with the disorder do indeed actually hear voices (or experience other kinds of hallucinations) as a result of biologically triggered sensations. According to this theory, the journey into schizophrenia takes shape when people try to make sense of these strange sensations and conclude incorrectly that the
voices are coming from external sources, that they are being persecuted, or another such notion. These misinterpretations are essentially delusions.

With this explanation in mind, an increasing number of clinicians now employ a cognitive-behavioral treatment for schizophrenia that is designed to help change how people view and react to their hallucinations (Howes & Murray, 2014; Hagen et al., 2011; Dudley & Turkington, 2011). The therapists believe that if people can be guided to interpret such experiences in a more accurate way, they will not suffer the fear and confusion produced by their delusional misinterpretations (Naeem et al., 2014). Thus, the therapists use a combination of behavioral and cognitive techniques:

1. They provide clients with education and evidence about the biological causes of hallucinations.
2. They help clients learn more about the “comings and goings” of their own hallucinations and delusions. The clients learn, for example, to identify which kinds of events and situations trigger the voices in their heads.

 Putting a Face on Auditory Hallucinations

In Chapter 3, you read that a growing number of therapists are using avatar therapy to help clients overcome their psychological problems. In this form of cybertherapy, therapists have the clients interact with computer-generated on-screen virtual human figures. Perhaps the boldest application of avatar therapy is its use with schizophrenic patients. Clinical researcher Julian Leff and several colleagues have developed an approach that seems to offer particular promise for such people (Leff et al., 2013).

For a pilot study, the researchers selected 16 participants who were being tormented by imaginary voices (auditory hallucinations). In each case, the therapist presented the patient with a mean-sounding and mean-looking avatar. The avatar’s voice pitch and appearance were designed based on the patient’s description of what he was hearing and what he believed would be a corresponding face.

The patient was placed alone in a room with the computer simulation while the therapist generated the on-screen avatar from another room. Initially, the avatar spewed all sorts of frightening and upsetting statements at the patient. Then, the therapist encouraged the patient to fight back—to tell the avatar things such as “I will not put up with this, what you are saying is nonsense, I don’t believe these things, you must go away and leave me alone, and I do not need this kind of torment” (Kedmey, 2014; Leff et al., 2013).

After seven 30-minute sessions, most of the participants in the pilot study had less frequent and less intense auditory hallucinations and reported being less upset by the voices they did continue to hear. The participants also reported improvements in their feelings of depression and suicidal thinking. Three of the 16 actually reported a total cessation of their auditory hallucinations after the sessions. These promising results are now being followed up in a larger study with more participants. The results of that study should clarify whether confronting one’s hallucinations in a virtual world can truly help people with schizophrenia.

Voices spring to virtual life This is one of the sinister-looking avatars developed by clinical researcher Julian Leff and his colleagues in their new treatment for people with schizophrenia.

Can you think of any negative effects—short-term or long-term—that might result from putting a face on auditory hallucinations?

BETWEEN THE LINES

In Their Words

“I feel cheated by having this illness.”
Person with schizophrenia, 1996
3. The therapists challenge their clients’ inaccurate ideas about the power of their hallucinations, such as the idea that the voices are all-powerful and uncontrollable and must be obeyed. The therapists also have the clients conduct behavioral experiments to put such notions to the test. What happens, for example, if the clients occasionally resist following the orders from their hallucinatory voices?

4. The therapists teach clients to reattribute and more accurately interpret their hallucinations. Clients may, for example, adopt and apply alternative conclusions such as “It’s not a real voice, it’s my illness.”

5. The therapists teach clients techniques for coping with their unpleasant sensations (hallucinations). The clients may, for example, learn ways to reduce the physical arousal that accompanies hallucinations—using special breathing and relaxation techniques, positive self-statements, and the like. Similarly, they may learn to refocus or distract themselves whenever the hallucinations occur. In one reported case, a therapist repeatedly walked behind his schizophrenic client and made harsh and critical statements, seeking to simulate the clients’ auditory hallucinations and then guiding him to focus his attention past the voices and on to the task at hand (Veiga-Martínez et al., 2008).

These behavioral and cognitive techniques often help schizophrenic people feel more control over their hallucinations and reduce their delusional ideas. But they do not eliminate the hallucinations. They simply render the hallucinations less powerful and less destructive. Can anything be done further to lessen the hallucinations’ unpleasant impact on the person? Yes, say new-wave cognitive-behavioral therapists, including practitioners of acceptence and commitment therapy.

As you read in Chapters 3 and 5, new-wave cognitive-behavioral therapists believe that the most useful goal of treatment is often to help clients accept their streams of problematic thoughts rather than to judge them, act on them, or try fruitlessly to change them (Hayes & Lillis, 2012; Hayes et al., 2004; Hayes, 2002). The therapists, for example, help highly anxious individuals to become simply mindful of the worries that engulf their thinking and to accept such negative thoughts as but harmless events of the mind (see pages 138–139). Similarly, in cases of schizophrenia, new-wave cognitive-behavioral therapists try to help clients become detached and comfortable observers of their hallucinations—merely mindful of the unusual sensations and accepting of them—while otherwise moving forward with the tasks and events of their lives (Chien et al., 2014; Bach, 2007).

Studies indicate that these various cognitive-behavioral treatments are often very helpful to clients with schizophrenia (Briki et al., 2014; Morrison et al., 2014; Swartz et al., 2012). Many clients who receive such treatments report that they feel less distressed by their hallucinations and that they have fewer delusions. Indeed, they are often able to shed the diagnosis of schizophrenia. Rehospitalizations decrease by 50 percent among clients treated with cognitive-behavioral therapy.

The cognitive-behavioral view that hallucinations should be accepted (rather than misinterpreted or overreacted to) is compatible with a notion already held by some people who hallucinate. There are a number of self-help groups comprised of people with auditory hallucinations whose guiding principles are that hallucinations themselves are harmless and valid experiences and that those who have auditory hallucinations often do best if they simply can accept and learn to live with them.
Family Therapy

More than 50 percent of those who are recovering from schizophrenia and other severe mental disorders live with their families: parents, siblings, spouses, or children (Tsai et al., 2011; Barrowclough & Lobban, 2008). Such situations create special pressures; even if family stress was not a factor in the onset of the disorder, a patient’s recovery may be strongly influenced by the behavior and reactions of his or her relatives at home (Macleod et al., 2011).

Generally speaking, people with schizophrenia who feel positive toward their relatives do better in treatment (Okpokoro et al., 2014). As you saw in Chapter 14, recovered patients living with relatives who display high levels of expressed emotion—that is, relatives who are very critical, emotionally overinvolved, and hostile—often have a much higher relapse rate than those living with more positive and supportive relatives. Moreover, for their part, family members may be very upset by the social withdrawal and unusual behaviors of a relative with schizophrenia (Friedrich et al., 2014; Quah, 2014).

To address such issues, clinicians now commonly include family therapy in their treatment of schizophrenia, providing family members with guidance, training, practical advice, psychoeducation about the disorder, and emotional support and empathy (Burbach, Fadden, & Smith, 2010). In family therapy, relatives develop more realistic expectations and become more tolerant, less guilt-ridden, and more willing to try new patterns of communication. Family therapy also helps the person with schizophrenia cope with the pressures of family life, make better use of family members, and avoid troublesome interactions.

Research has found that family therapy—particularly when it is combined with drug therapy—helps reduce tensions within the family and so helps relapse rates go down (Okpokoro et al., 2014; Swartz et al., 2012; Haddock & Spaulding, 2011). The principles of this approach are evident in the following description:

Mark was a 32-year-old single man living with his parents. He had a long and stormy history of schizophrenia with many episodes of psychosis, interspersed with occasional brief periods of good functioning. Mark’s father was a bright but neurotically tormented man gripped by obsessions and inhibitions. Mark’s mother appeared weary, detached, and embittered. Both parents felt hopeless about Mark’s chances of recovery and resentful that needing to care for him would always plague their lives. They acted as if they were being intentionally punished. It gradually emerged that the father, in fact, was riddled with guilt and self-doubt; he suspected that his wife had been cold and rejecting toward Mark as an infant and that he had failed to intervene, due to his unwillingness to confront his wife and the demands of graduate school that distanced him from home life. He entertained the fantasy that Mark’s illness was a punishment for this. Every time Mark did begin to show improvement—both in reduced symptoms and in increased functioning—his parents responded as if it were just a cruel torment designed to raise their hopes and then to plunge them into deeper despair when Mark’s condition deteriorated. This pattern was especially apparent when Mark got a job. As a result, at such times, the parents actually became more critical and hostile toward Mark. He would become increasingly defensive and insecure, finally developing paranoid delusions, and usually would be hospitalized in a panicky and agitated state.

All of this became apparent during the psychoeducational sessions. When the pattern was pointed out to the family, they were able to recognize their self-fulfilling prophecy and were motivated to deal with it. As a result, the therapist decided to see the family together. Concrete instances of the pattern and its consequences were explored, and alternative responses by the parents were developed. The therapist encouraged both the parents and Mark to discuss their anxieties and doubts
The families of people with schizophrenia and other severe mental disorders may also turn to family support groups and family psychoeducational programs for encouragement and advice (Fallahi Khoshknab et al., 2014; McFarlane, 2011). In such programs, family members meet with others in the same situation to share their thoughts and emotions, provide mutual support, and learn about schizophrenia. Although research has yet to fully determine the usefulness of these groups, the approach has become popular.

Social Therapy

Many clinicians believe that the treatment of people with schizophrenia should include techniques that address social and personal difficulties in the clients’ lives. These clinicians offer practical advice; work with clients on problem solving, memory enhancement, decision making, and social skills; make sure that the clients are taking their medications properly; and may even help them find work, financial assistance, appropriate health care, and proper housing (Granholm et al., 2014; Ordemann et al., 2014; Ridgway, 2008).

Research finds that this practical, active, and broad approach, called social therapy or personal therapy, does indeed help keep people out of the hospital (Haddock & Spaulding, 2011; Hogarty, 2002). One study compared the progress of four groups of patients with chronic schizophrenia after their discharge from a state hospital (Hogarty et al., 2006, 1986, 1974). One group received both antipsychotic medications and social therapy in the community, while the other groups received medication only, social therapy only, or no treatment of any kind. The researchers’ first finding was that chronic patients need to continue taking medication after being released in order to avoid rehospitalization. Over a two-year period, 80 percent of those who did not continue medication needed to be hospitalized again, compared with 48 percent of those who received medication. They also found that among the patients on medication, those who also received social therapy adjusted to the community and avoided rehospitalization most successfully. Other studies tell a similar story (Razali et al., 2014). Clearly, social therapy played an important role in their recovery.

The Community Approach

The broadest approach for the treatment of schizophrenia and other severe mental disorders is the community approach. In 1963, partly in response to the terrible conditions in public mental institutions and partly because of the emergence of antipsychotic drugs, the U.S. government ordered that patients be released and treated in the community. Congress passed the Community Mental Health Act, which stipulated that patients with psychological disorders were to receive a range of mental health services—outpatient therapy, inpatient treatment, emergency care, preventive care, and aftercare—in their communities rather than being transported to institutions far from home. The act was aimed at a variety of psychological disorders, but patients diagnosed with schizophrenia and other severe disorders, especially those who had been institutionalized for years, were affected most. Other countries around the world put similar sociocultural treatment programs into action shortly thereafter (Wiley-Exley, 2007).
Thus began several decades of deinstitutionalization, an exodus of hundreds of thousands of patients with schizophrenia and other long-term mental disorders from state institutions into the community. On a given day in 1955, close to 600,000 patients were living in state institutions; today fewer than 40,000 patients live in such facilities (Althouse, 2010). Clinicians have learned that patients recovering from schizophrenia and other severe disorders can profit greatly from community programs. As you will see, however, the actual quality of community care for these people has often been inadequate throughout the United States. The result is a “revolving door” pattern for many patients. They are released to the community, readmitted to an institution within months, released a second time, admitted yet again, and so on, over and over (Burns & Drake, 2011; Torrey, 2001).

What Are the Features of Effective Community Care?

People recovering from schizophrenia and other severe disorders need medication, psychotherapy, help in handling daily pressures and responsibilities, guidance in making decisions, social skills training, vocational counseling—a combination of services sometimes called assertive community treatment (Keller et al., 2014). Those whose communities help them meet these needs make more progress than those living in other communities (Malm, Ivarsson, & Allebeck, 2014; Swartz et al., 2012). Some of the key features of effective community care programs are (1) coordination of patient services, (2) short-term hospitalization, (3) partial hospitalization, (4) supervised residencies, and (5) occupational training.

**Coordinated Services** When the Community Mental Health Act was first passed, it was expected that community care would be provided by community mental health centers, treatment facilities that would supply medication, psychotherapy, and inpatient emergency care to people with severe disturbances, as well as coordinate the services offered by other community agencies. When community mental health centers are available and do provide these services, patients with schizophrenia and other severe disorders often make significant progress (Burns & Drake, 2011; Rapp & Goscha, 2008). Coordination of services is particularly important for so-called mentally ill chemical abusers (MICAs), patients with psychotic disorders as well as substance use disorders (De Witte et al., 2014).

**Short-Term Hospitalization** When people develop severe psychotic symptoms, today’s clinicians first try to treat them on an outpatient basis, usually with a combination of antipsychotic medication and psychotherapy (Addington & Addington, 2008). If this approach fails, they may try short-term hospitalization—in a mental hospital or a general hospital’s psychiatric unit—that lasts a few weeks (rather than months or years) (Craig & Power, 2010). Soon after the patients improve, they are released for aftercare, a general term for follow-up care and treatment in the community. Because short-term hospitalization usually leads to more improvement and a lower rehospitalization rate than extended institutionalization (Soliman et al., 2008), countries throughout the world now favor it over long-term institutionalization.
Partial Hospitalization  People’s needs may fall between full hospitalization and outpatient therapy, and so some communities offer day centers, or day hospitals, all-day programs in which patients return to their homes for the night. Such programs actually originated in Moscow in 1933, when a shortage of hospital beds necessitated the premature release of many patients. Today’s day centers provide patients with daily supervised activities, therapy, and programs to improve social skills. People recovering from severe disorders in day centers often do better than those who spend extended periods in a hospital or in traditional outpatient therapy (Bales et al., 2014; Mayahara & Ito, 2002).

Another kind of institution that has become a popular setting for the treatment of people with schizophrenia and other severe disorders is the semihospital, or residential crisis center. Semihospitals are houses or other structures in the community that provide 24-hour nursing care for people with severe mental disorders (Soliman et al., 2008). Many individuals who would otherwise be cared for in state hospitals are now being transferred to these semihospitals.

Supervised Residences  Many people do not require hospitalization but are unable to live alone or with their families. Halfway houses, also known as crisis houses or group homes, often serve individuals well (Lindenmayer & Khan, 2012; Levy et al., 2005). Such residences may shelter between one and two dozen people. The live-in staff usually are paraprofessionals—lay people who receive training and ongoing supervision from outside mental health professionals. The houses are usually run with a milieu therapy philosophy that emphasizes mutual support, resident responsibility, and self-government. Research indicates that halfway houses help many people recovering from schizophrenia and other severe disorders adjust to community life and avoid rehospitalization (Hansson et al., 2002; McGuire, 2000). Here is how one woman described living in a halfway house after 10 hospitalizations in 12 years:

The halfway house changed my life. First of all, I discovered that some of the staff members had once been clients in the program! That one single fact offered me hope. For the first time, I saw proof that a program could help someone, that it was possible to regain control over one’s life and become independent. The house was democratically run; all residents had one vote and the staff members, outnumbered 5 to 22, could not make rules or even discharge a client from the program without majority sentiment. There was a house bill of rights that was strictly observed by all. We helped one another and gave support. When residents were in a crisis, no staff member hustled them off or increased their medication to calm them down. Residents could cry, be comforted and hugged until a solution could be found, or until they accepted that it was okay to feel bad. Even anger was an acceptable feeling that did not have to be feared, but could be expressed and turned into constructive energy. If you disliked some aspect of the program or the behavior of a staff member, you could change things rather than passively accept what was happening. Choices were real, and failure and success were accepted equally. . . . Bit by bit, my distrust faltered and the fears lessened. I slept better and made friends. . . . Other residents and staff members who had hallucinated for years and now were able to control their hallucinations shared with me some of the techniques that had worked for them. Things like diet . . . and interpersonal relationships became a few of my tools.

(Lowrey, 1982, pp. 605–609)

> deinstitutionalization  The discharge of large numbers of patients from long-term institutional care so that they might be treated in community programs.

> community mental health center  A treatment facility that provides medication, psychotherapy, and emergency care for psychological problems and coordinates treatment in the community.

> aftercare  A program of posthospitalization care and treatment in the community.

> day center  A program that offers hospital-like treatment during the day only. Also known as a day hospital.

> halfway house  A residence for people with schizophrenia or other severe problems, often staffed by paraprofessionals. Also known as a group home or crisis house.
Occupational Training and Support  Paid employment provides income, independence, self-respect, and the stimulation of working with others. It also brings companionship and order to one’s daily life. For these reasons, occupational training and placement are important services for people with schizophrenia and other severe mental disorders (Johnson et al., 2014; Bell, Choi, & Lysaker, 2011; Davis et al., 2010).

Many people recovering from such disorders receive occupational training in a sheltered workshop—a supervised workplace for employees who are not ready for competitive or complicated jobs. The workshop replicates a typical work environment: products such as toys or simple appliances are manufactured and sold, workers are paid according to performance and are expected to be at work regularly and on time. For some, the sheltered workshop becomes a permanent workplace. For others, it is an important step toward better-paying and more demanding employment or a return to a previous job (Becker, 2008; Chalamat et al., 2005). In the United States, however, occupational training is not consistently available to people with severe mental disorders.

An alternative work opportunity for people with severe psychological disorders is supported employment, in which vocational agencies and counselors help clients find competitive jobs in the community and provide psychological support while the clients are employed (Solar, 2014; Bell et al., 2011). Like sheltered workshops, supported employment opportunities are often in short supply.

How Has Community Treatment Failed?

There is no doubt that effective community programs can help people with schizophrenia and other severe mental disorders recover. However, fewer than half of all the people who need them receive appropriate community mental health services (Burns & Drake, 2011; Lehman et al., 2004; McGuire, 2000). In fact, in any given year, 40 to 60 percent of all people with schizophrenia and other severe mental disorders receive no treatment at all (Wang et al., 2002; Torrey, 2001). Two factors are primarily responsible: poor coordination of services and a shortage of services.

Poor Coordination of Services  The various mental health agencies in a community often fail to communicate with one another. There may be an opening at a nearby halfway house, for example, and the therapist at the community mental health center may not know about it. In addition, even within a community agency a patient may not have continuing contacts with the same staff members and may fail to receive consistent services. Still another problem is poor communication between state hospitals and community mental health centers, particularly at times of discharge (Torrey, 2001).

To help deal with such problems in communication and coordination, a growing number of community therapists have become case managers for people with schizophrenia and other severe mental disorders (Mas-Expósito et al., 2014; Burns, 2010). They try to coordinate available community services, guide clients through the community system, and help protect clients’ legal rights. Like the social therapists described earlier, they also offer therapy and advice, teach problem-solving and social skills, ensure that clients are taking their medications properly, and keep an eye on possible health care needs. Many professionals now believe that effective case management is the key to success for a community program.
Shortage of Services The number of community programs—community mental health centers, halfway houses, sheltered workshops—available to people with severe mental disorders falls woefully short (Zipursky, 2014; Burns & Drake, 2011). In addition, the community mental health centers that do exist generally fail to provide adequate services for people with severe disorders. They tend to devote their efforts and money to people with less disabling problems, such as anxiety disorders or problems in social adjustment. Only a fraction of the patients treated by community mental health centers suffer from schizophrenia or other disorders marked by psychosis (Torrey, 2001).

There are various reasons for this shortage of services. Perhaps the primary one is economic (Feldman et al., 2014; Covell et al., 2011). On the one hand, more public funds are available for people with psychological disorders now than in the past. In 1963 a total of $1 billion was spent in this area, whereas today approximately $171 billion in public funding is devoted each year to people with mental disorders (Rampell, 2013; Gill, 2010; Redick et al., 1992). This represents a significant increase even when inflation and so-called real dollars are factored in. On the other hand, rather little of the additional money is going to community treatment programs for people with severe disorders (Feldman et al., 2014; Covell et al., 2011). Much of it goes instead to prescription drugs, monthly income payments such as social security disability income, services for people with mental disorders in nursing homes and general hospitals, and community services for people who are less disturbed. Today, the financial burden of providing community treatment for people with long-term severe disorders often falls on local governments and nonprofit organizations rather than the federal or state government (Rampell, 2013), and local resources cannot always meet this challenge.

What Are the Consequences of Inadequate Community Treatment? What happens to people with schizophrenia and other severe disorders whose communities do not provide the services they need and whose families cannot afford private treatment (see Figure 15-2)? As you have read, a large number receive no treatment at all; many others spend a short time in a state hospital or semihospital and are then discharged prematurely, often without adequate follow-up treatment (Burns & Drake, 2011; Gill, 2010).

Many of the people with schizophrenia and other severe disorders return to their families and receive medication and perhaps emotional and financial support, but little else in the way of treatment (Barrowclough & Lobban, 2008). Around 8 percent enter an alternative institution such as a nursing home or rest home, where they receive only custodial care and medication (Torrey, 2001). As many as 18 percent are placed in privately run residences where supervision often is provided by untrained staff—foster homes (small or large), boardinghouses, care homes, and similar facilities (Lindenmayer & Khan, 2012). These residences vary greatly in quality. Some of them are legitimate “bed and care” facilities, providing three meals a day, medication reminders, and at least a small degree of staff supervision. However, many do not offer even these minimal services.

Another 34 percent of people with schizophrenia and other severe disorders live in totally unsupervised settings. Some are equal to the challenge of living alone, supporting themselves effectively, and maintaining nicely furnished apartments. But many cannot really function.

Counseling the homeless As a result of the severe shortage of community services and related treatment offerings, many people with schizophrenia and other severe mental disorders have become homeless. Here a worker at the Phool Mandi homeless shelter in Delhi, India, comforts and counsels one such person while they sit together on a stairway at the shelter.
independently and wind up in rundown single-room occupancy hotels (SROs) or rooming houses, often located in inner-city neighborhoods (Torrey, 2001). They may live in conditions that are substandard and unsafe, which may exacerbate their disorder (Bhavsar et al., 2014). Many survive on government disability payments, and a number spend their days wandering through neighborhood streets. Finally, a great number of people with schizophrenia and other severe disorders have become homeless (Ogden, 2014; Kooyman & Walsh, 2011). There are between 400,000 and 800,000 homeless people in the United States, and approximately one-third have a severe mental disorder, commonly schizophrenia. Many have been released from hospitals. Others are young adults who were never hospitalized in the first place. Another 135,000 or more people with severe mental disorders end up in prisons because their disorders have led them to break the law (Morrissey & Cuddeback, 2008; Peters et al., 2008) (see MediaSpeak on the next page). Certainly deinstitutionalization and the community mental health movement have failed these individuals, and many report actually feeling relieved if they are able to return to hospital life.

The Promise of Community Treatment

Despite these very serious problems, proper community care has shown great potential for assisting people in recovering from schizophrenia and other severe disorders, and clinicians and many government officials continue to press to make it more available. In addition, a number of national interest groups have formed in countries around the world that push for better community treatment (Frese, 2008). In the United States, for example, the National Alliance on Mental Illness (NAMI) began in 1979 with 300 members and has expanded to 200,000 members in more than 1,000 chapters (NAMI, 2014). Made up largely of families and people affected by severe mental disorders (particularly schizophrenia, bipolar disorders, and major depressive disorder), NAMI has become not only a source of information, support, and guidance for its members but also a powerful lobbying force in state and national legislatures; and it has pressured community mental health centers to treat more people with schizophrenia and other severe disorders.
An 18-year-old schizophrenic pounds on the thick security glass of his single-man cell.

A woman lets out a long guttural scream to nobody in particular to turn off the lights.

A 24-year-old man drags his mattress under his bunk, fearful of the voices telling him to hurt himself.

This is not the inside of a psychiatric hospital. It's the B-Mental Health Unit [at a prison in California's] Stanislaus County. . . . Sheriff's deputy David Frost, who oversees the unit, says most of the inmates aren't difficult, just needy. "They do want help," Frost said.

Stanislaus County is not unique. Experts say U.S. prisons and jails have become the country's largest mental health institutions, its new asylums. Nearly four times more Californians with serious mental illnesses are housed in jails and prisons than in hospitals. . . . Nationally, 16 to 20 percent of prisoners are mentally ill, said Harry K. Wexler, a psychologist specializing in crime and substance abuse.

"I think it's a national tragedy," Wexler said. "Prisons are the institutions of last resort. The mentally ill are generally socially undesirable, less employable, more likely to be homeless and get on that slippery slope of repeated involvement in the criminal justice system."

Those who staff prisons and jails are understandably ill-equipped to be psychiatric caretakers. . . . Frost agrees. . . . "I'm not a mental health technician," he says, although he does hold a psychology degree. "I'm a sworn law enforcement officer." He walked the halls on a recent day, asking inmates if they were taking their medications and how they were feeling, and answering questions about upcoming court dates. . . .

Mentally ill offenders have higher recidivism rates than other inmates (they're called "frequent fliers" in the criminal justice world) because they receive little psychiatric care after their release, researchers say. They cost more to jail because of the cost of medications and psychiatric examinations, and they can cause security problems by their aggressive and destructive behavior in lockup.

Wexler said these inmates also are more likely to commit suicide. Because they're less capable of conforming to the rigid rules of a jailhouse, they can end up in isolation as punishment, Wexler said.

At 4:30 a.m. in the . . . jail—and again 12 hours later—it's "pill pass time," when the medical staff hands out about a dozen types of medications. . . . "You're making jailers our mental health treatment personnel," said Phil Trompetter, a Modesto police and forensic psychologist. "They're not trained to do that. . . . This population is not getting what they need."

Because of the lack of hospital space, police are often forced to take the mentally ill who commit minor misdemeanors—from petty thefts to urinating in public—to jail instead. . . . "We have too many untreated mentally ill people who are getting criminalized because of the absence of resources," Trompetter said.

One nationally recognized solution is called a mental health treatment court, which gives offenders the choice between going to jail or following a treatment plan—including taking prescribed medications. [Such programs have had] success in decreasing the recidivism rate among mentally ill offenders and helping smooth their transition back into society.

But at the same time, [because of budget cuts, mental health treatment courts have been] forced to stop taking new offenders. . . . "We deal every day with this crisis of the mentally ill—in jail or out on the street," Frost said. "We do need the funding for these types of programs."

Why is it shortsighted—both morally and financially—for government officials to stop funding mental health treatment courts and similar programs?
Today, community care is a major feature of treatment for people recovering from severe mental disorders in countries around the world. Both in the United States and abroad, well-coordinated community treatment is seen as an important part of the solution to the problem of severe mental dysfunctioning (Wise, 2014; Burns & Drake, 2011).

**PUTTING IT...together**

An Important Lesson

After years of frustration and failure, clinicians now have an arsenal of weapons to use against schizophrenia and other disorders marked by psychosis—medication, institutional programs, psychotherapy, and community programs. It has become clear that antipsychotic medications open the door for recovery from these disorders, but in most cases other kinds of treatment are also needed to help the recovery process along. The various approaches must be combined in a way that meets each individual’s specific needs.

Working with schizophrenia and other severe disorders has taught therapists an important lesson: no matter how compelling the evidence for biological causation may be, a strictly biological approach to the treatment of psychological disorders is a mistake more often than not. Largely on the basis of biological discoveries and pharmacological advances, hundreds of thousands of patients with schizophrenia and other severe mental disorders were released to their communities in the 1960s. Little attention was paid to their psychological and sociocultural needs, and many have been trapped in their pathology ever since. Clinicians must remember this lesson, especially in today’s climate, when managed care and government priorities often promote medication as the sole treatment for psychological problems.

When the pioneering clinical researcher Emil Kraepelin described schizophrenia at the end of the nineteenth century, he estimated that only 13 percent of its victims ever improved. Today, even with shortages in community care, many more people with schizophrenia—at least three times as many—show improvement (Pinna et al., 2014). Certainly the clinical field has advanced considerably since Kraepelin’s day, but it still has far to go. Studies suggest that the recovery rates—both partial and full—could be considerably higher (Zipursky, 2014). It is unacceptable that so many people with this and other severe mental disorders receive few or none of the effective community interventions that have been developed, worse still that tens of thousands have become homeless. It is now up to clinicians, along with public officials, to address the needs of all people with schizophrenia and other severe disorders.

**SUMMING UP**

- **OVERVIEW OF TREATMENT** For years, all efforts to treat schizophrenia brought only frustration. Schizophrenia is still difficult to treat, but today’s therapies are more successful than those of the past. p. 494

- **PAST INSTITUTIONAL CARE** For more than half of the twentieth century, the main treatment for schizophrenia and other severe mental disorders was institutionalization and custodial care. Because patients failed to respond to traditional therapies, they were usually placed in overcrowded public institutions (state hospitals in the United States), typically in back wards where the primary goal was to maintain and restrain them. Between 1845 and 1955 the
number of state hospitals and mental patients rose steadily, while the quality of care declined. pp. 495–497

- **IMPROVED INSTITUTIONAL CARE** In the 1950s, two in-hospital approaches were developed, milieu therapy and token economy programs. They often brought improvement and particularly helped patients to care for themselves and feel better about themselves. pp. 497–500

- **ANTIPSYCHOTIC DRUGS** The discovery of antipsychotic drugs in the 1950s revolutionized the treatment of schizophrenia and other disorders marked by psychosis. Today they are almost always a part of treatment. Theorists believe that the first generation of antipsychotic drugs operate by reducing excessive dopamine activity in the brain. These “conventional” antipsychotic drugs reduce the positive symptoms of schizophrenia more completely, or more quickly, than the negative symptoms.

  The conventional antipsychotic drugs can also produce dramatic unwanted effects, particularly movement abnormalities called extrapyramidal effects, which include Parkinsonian and related symptoms, neuroleptic malignant syndrome, and tardive dyskinesia. More than 10 percent of the people who take conventional antipsychotic drugs for an extended time develop tardive dyskinesia, an syndrome that can be difficult or impossible to eliminate, even when the drugs are stopped. Recently, atypical, or second-generation, antipsychotic drugs (such as clozapine, risperidone, and olanzapine) have been developed; these seem to be more effective than the conventional drugs and to cause fewer or no extrapyramidal effects. pp. 500–504

- **PSYCHOTHERAPY** Psychotherapy is often employed successfully in combination with antipsychotic drugs. Helpful forms include cognitive-behavioral therapy, family therapy, and social therapy. Family support groups and family psychoeducational programs are also growing in number. pp. 505–509

- **THE COMMUNITY APPROACH** A community approach to the treatment of schizophrenia and other severe mental disorders began in the 1960s, when a policy of deinstitutionalization in the United States brought about a mass exodus of hundreds of thousands of patients from state institutions into the community. Among the key elements of effective community care programs are coordination of patient services by a community mental health center, short-term hospitalization (followed by aftercare), day centers, halfway houses, occupational training and support, and case management.

  Unfortunately, the quality and funding of community care for people with schizophrenia and other severe disorders have been inadequate throughout the United States, often resulting in a “revolving door” pattern. One consequence is that many people with such disorders are now homeless or in jail. Still others live in nursing homes or rest homes where they do not receive effective treatment, and many live in boardinghouses or single-room-occupancy hotels. pp. 509–514

- **THE PROMISE OF COMMUNITY TREATMENT** The potential of proper community care to help people recovering from schizophrenia and other severe disorders continues to capture the interest of clinicians and policy makers. One major development has been the formation of national interest groups that are successfully promoting community treatment for people with these disorders. pp. 514–516

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**BETWEEN THE LINES**

Schizophrenia and Jail

- There are more people with schizophrenia and other severe mental disorders in jails and prisons than there are in all hospitals and other treatment facilities.
  - People with severe mental disorders account for around 20 percent of the jail populations in the United States.
  - Inmates in jails and prisons have rates of schizophrenia that are four times higher than that of the general public.
  - Chicago’s Cook County Jail, where several thousand of the inmates require daily mental health services, is now in effect the largest mental institution in the United States.

(Pruchno, 2014; Balassone, 2011; Steadman et al., 2009; Morrisey & Cuddeback, 2008; Peters et al., 2008)

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While interviewing for the job of editor of a start-up news Web site, Frederick said, “This may sound self-serving, but I am extraordinarily gifted. I am certain that I will do great things in this position. I and the Osterman Post will soon set the standard for journalism and blogging in the country. Within a year, we’ll be looking at the Huffington Post in the rearview mirror.” The committee was impressed. Certainly, Frederick’s credentials were strong, but even more important, his self-confidence and boldness had wowed them.

A year later, many of the same individuals were describing Frederick differently—arrogant, self-serving, cold, ego-maniacal, draining. He had performed well as editor (though not as spectacularly as he seemed to think), but that performance could not outweigh his impossible personality. Colleagues below and above him had grown weary of his manipulations, his emotional outbursts, his refusal ever to take the blame, his nonstop boasting, and his grandiose plans. Once again Frederick had outworn his welcome.

To be sure, Frederick had great charm, and he knew how to make others feel important, when it served his purpose. Thus he always had his share of friends and admirers. But in reality they were just passing through, until Frederick would tire of them or feel betrayed by their lack of enthusiasm for one of his self-serving interpretations or grand plans. Or until they simply could take Frederick no longer.

Bright and successful though he was, Frederick always felt entitled to more than he was receiving—to higher grades at school, greater compensation at work, more attention from girlfriends. If criticized even slightly, he reacted with fury, and was certain that the critic was jealous of his superior intelligence, skill, or looks. At first glance, Frederick seemed to have a lot going for him socially. Typically, he could be found in the midst of a deep, meaningful romantic relationship—in which he might be tender, attentive, and seemingly devoted to his partner. But Frederick would always tire of his partner within a few weeks or months and would turn cold or even mean. Often he started affairs with other women while still involved with the current partner. The breakups—usually unpleasant and sometimes ugly—rarely brought sadness or remorse to him, and he would almost never think about his former partner again. He always had himself.

Each of us has a personality—a set of uniquely expressed characteristics that influence our behaviors, emotions, thoughts, and interactions. Our particular characteristics, often called personality traits, lead us to react in fairly predictable ways as we move through life. Yet our personalities are also flexible. We learn from experience. As we interact with our surroundings, we try out various responses to see which feel better and which are more effective. This is a flexibility that people who suffer from a personality disorder usually do not have.

People with a personality disorder display an enduring, rigid pattern of inner experience and outward behavior that impairs their sense of self, emotional experiences, goals, capacity for empathy, and/or capacity for intimacy (APA, 2013) (see Table 16–1). Put another way, they have personality traits that are much more extreme and dysfunctional than those of most other people in their culture, leading to significant problems and psychological pain for themselves or others.

Frederick appears to display a personality disorder. For most of his life, his extreme narcissism, grandiosity, and insensitivity have led to poor functioning in both the personal and social realms. They have caused him to repeatedly feel angry and unappreciated, deprived him of close personal relationships, and brought considerable pain to others. Witness the upset and turmoil felt by Frederick’s coworkers and girlfriends.
The symptoms of personality disorders last for years and typically become recognizable in adolescence or early adulthood, although some start during childhood (APA, 2013; Westen et al., 2011). These disorders are among the most difficult psychological disorders to treat. Many people with the disorders are not even aware of their personality problems and fail to trace their difficulties to their maladaptive style of thinking and behaving. Surveys indicate that between 10 and 15 percent all adults in the United States have a personality disorder (APA, 2013; Sansone & Sansone, 2011).

It is common for a person with a personality disorder to also suffer from another disorder, a relationship called comorbidity. As you will see later in this chapter, for example, many people with avoidant personality disorder, who fearfully shy away from all relationships, also display social anxiety disorder. Perhaps avoidant personality disorder predisposes people to develop social anxiety disorder. Or perhaps social anxiety disorder sets the stage for the personality disorder. Then again, some biological factor may create a predisposition to both the personality disorder and the anxiety disorder. Whatever the reason for the relationship, research indicates that the presence of a personality disorder complicates a person’s chances for a successful recovery from other psychological problems (Fok et al., 2014; Abbass et al., 2011).

DSM-5, like its predecessor, DSM-IV-TR, identifies 10 personality disorders (APA, 2013). Often these disorders are separated into three groups, or clusters. One cluster, marked by odd or eccentric behavior, consists of the paranoid, schizoid, and schizotypal personality disorders. A second cluster features dramatic behavior and consists of the antisocial, borderline, histrionic, and narcissistic personality disorders. The final cluster features a high degree of anxiety and includes the avoidant, dependent, and obsessive-compulsive personality disorders.

These 10 personality disorders are each characterized by a group of problematic personality symptoms. For example, as you will soon see, paranoid personality disorder is diagnosed when a person has unjustified suspicions that others are harming him or her, has persistent unfounded doubts about the loyalty of friends, reads threatening meanings into benign events, persistently bears grudges, and has recurrent unjustified suspicions about the faithfulness of life partners.

The DSM’s listing of 10 distinct personality disorders is called a categorical approach. Like a light switch that is either on or off, this kind of approach assumes that (1) problematic personality traits are either present or absent in people, (2) a personality disorder is either displayed or not displayed by a person, and (3) a person who suffers from a personality disorder is not markedly troubled by personality traits outside of that disorder.

It turns out, however, that these assumptions are frequently contradicted in clinical practice. In fact, the symptoms of the personality disorders listed in DSM-5 overlap so much that clinicians often find it difficult to distinguish one disorder from another (see Figure 16-1), resulting in frequent disagreements about which diagnosis is correct for a person with a personality disorder. Diagnosticians sometimes even determine that particular people have more than one personality disorder (APA, 2013). This lack of agreement has raised serious questions about the validity (accuracy) and reliability (consistency) of the 10 DSM-5 personality disorder categories.

Given this state of affairs, many theorists have challenged the use of a categorical approach to personality disorders. They believe that personality disorders differ more in degree than in type of dysfunction and should instead be classified by the severity of personality traits rather than by the presence or absence of specific traits—a procedure called a dimensional approach (Morey, Skodol, & Oldham, 2014). In a dimensional approach, each trait is seen as varying along a continuum extending from nonproblematic to extremely problematic. People with a personality
disorder are those who display extreme degrees of problematic traits—degrees not commonly found in the general population.

Given the inadequacies of a categorical approach and the growing enthusiasm for a dimensional one, the framers of DSM-5 initially proposed significant changes in how personality disorders should be classified. They proposed a largely dimensional system that would allow many additional kinds of personality problems to be classified as personality disorders and would require clinicians to assess the severity of each problematic trait exhibited by a person who receives a diagnosis of personality disorder. However, this proposal itself produced enormous concern and
criticism in the clinical field, leading the framers of DSM-5 to change their mind and to retain, for now, a classic 10-disorder categorical approach in the new DSM. At the same time, the framers acknowledged the likely future direction of personality disorder classifications by also describing an alternative dimensional approach (Anderson et al., 2014).

Most of the discussions in this chapter are organized around the 10-disorder categorical approach currently used in DSM-5. Later in the chapter, however, we will examine possible alternative—dimensional—approaches of the future, including the one presented in DSM-5.

As you read about the various personality disorders, you should be clear that diagnoses of such disorders can be assigned too often. We may catch glimpses of ourselves or of people we know in the descriptions of these disorders and be tempted to conclude that we or they have a personality disorder. In the vast majority of instances, such interpretations are incorrect. We all display personality traits. Only occasionally are they so maladaptive, distressful, and inflexible that they can be considered disorders.

“Odd” Personality Disorders

The cluster of “odd” personality disorders consists of the paranoid, schizoid, and schizotypal personality disorders. People with these disorders typically have odd or eccentric behaviors that are similar to but not as extensive as those seen in schizophrenia, including extreme suspiciousness, social withdrawal, and peculiar ways of thinking and perceiving things. Such behaviors often leave the person isolated. Some clinicians believe that these personality disorders are related to schizophrenia. In fact, schizotypal personality disorder is listed twice in DSM-5—as one of the schizophrenia spectrum disorders and as one of the personality disorders (Rosell et al., 2014; APA, 2013). Directly related or not, people with an odd cluster personality disorder often qualify for an additional diagnosis of schizophrenia or have close relatives with schizophrenia (Chemerinski & Siever, 2011).

Clinicians have learned much about the symptoms of the odd cluster personality disorders but have not been so successful in determining their causes or how to treat them. In fact, as you’ll soon see, people with these disorders rarely seek treatment.

Paranoid Personality Disorder

As you read earlier, people with paranoid personality disorder deeply distrust other people and are suspicious of their motives (APA, 2013). Because they believe that everyone intends them harm, they shun close relationships. Their trust in their own ideas and abilities can be excessive, though, as you can see in the case of Eduardo:

For Eduardo, a researcher at a genetic engineering research company, this was the last straw. He had been severely chastised by his supervisor for disregarding company protocol and deviating from the research procedure on a major study. He knew where this was coming from. He had been “ratted out” by his jealous, conniving lab colleagues—petty and small-minded bureaucrats who were always plotting ways to get him in trouble. This time, Eduardo would not sit back quietly. He demanded a meeting with his supervisor and the three other researchers in the lab.

At the outset of the meeting, Eduardo insisted that he would not leave the room until he was told the name of the person who had ratted him out. He acknowledged that he had, in fact, altered the study’s research design in key ways—eliminating some of the rats that were to be included in the study, increasing the food intake for a...
number of the rats, and conducting certain blood analyses that he thought would be enlightening. He maintained that these alterations were more than justified. The lab study, as previously designed, was a dull waste of time. In contrast, his revisions would open the door to new insights and, potentially, enormous medical gains.

Eduardo quickly shifted the focus of the meeting onto his lab colleagues. He stated that the other scientists were intimidated by his visionary ideas, and he accused them of trying to get him out of the way so they could continue to work in an unproductive, low-pressure atmosphere. He said that their desire to get rid of him was always apparent to him, revealed by their coldness toward him each and every day and their outright nastiness whenever he tried to correct them or offer constructive criticism. Now on a roll, Eduardo further accused them of always talking loudly to one another as they ate lunch at their desks, for the sole purpose of preventing him from completing the work tasks that he would bring to his desk. Nor did it escape his attention that they were always laughing at him, talking about him behind his back, and, on more than one occasion, trying to copy or destroy his notes.

The other researchers were aghast as Eduardo laid out his suspicions. They knew he didn’t like them, but they had not, until now, recognized the depth of his fury or the number of his imagined slights. One of them, Xavier, spoke up. First, they had no idea that he was unilaterally changing the research protocol, so of course there was no way that they could have reported his actions to the supervisor. Second, and more generally, it was he, not they, who was always behaving in an unfriendly and back-stabbing manner. Was it not true that he had stopped speaking to all three of them two months ago and that he regularly tried to antagonize them—giving them dirty looks, slamming doors, and brushing hard into them whenever he passed them? In response, Eduardo grunted and laughed—a self-righteous laugh. His only response was to ask them how else they expected him to behave, given their ill will toward him.

Next, Eduardo’s supervisor, Lisa, spoke up. She said that in her objective opinion, none of Eduardo’s accusations were true. First, none of his colleagues had informed on him, because he had conducted his modified protocols after they had gone home. She had reviewed videos from the lab cameras as a matter of routine and had noticed him feeding rats that were supposed to be hungry later. While acknowledging that his research ideas were interesting, she pointed out that his unilateral changes in procedure were throwing off the validity of the study. Lisa reminded him that any deviation would have had to be approved by her and that she would not be able to give that approval without submitting a written request to their financial backers.

Second, she said that in her observations of everyday lab interactions, it was Xavier’s account that rang true, not Eduardo’s. She even added a few points of her own—that Eduardo never smiled, always looked tense, regularly picked fights, and seemed to delight in criticizing others. She also noted that she had received many complaints from people outside the lab about Eduardo’s cold and aloof manner. Finally, she angrily pointed out that several fully competent assistants had quit over the past year because of his eruptions over slight errors and infractions. Eduardo’s response to Lisa was what she expected by this point, but no less offensive. He accused her of covering up for his treacherous co-workers and of being in the pocket of a compromised medical field with a financial stake in maintaining the status quo.

Later, in the privacy of her office, Lisa told Eduardo that she had no choice but to let him go. She said that his behavior in the meeting showed once and for all that he could not be trusted, no matter how gifted he was, and that his continued presence on the project would jeopardize its integrity. Eduardo was furious, but not really surprised. His past two jobs has also ended badly. As he was packing up his private belongings back in the lab, he made a point of sarcastically congratulating his co-worker Xavier “for successfully orchestrating my termination and for your victory on behalf of the forces of scientific mediocrity.”

“Zero Degrees of Empathy”

With the term “Skinhead” tattooed on the back of his head, this man awaits trial in Germany for committing neo-Nazi crimes against foreigners and liberals. Clinicians sometimes confront extreme racism and intolerance in their practices, particularly among clients with paranoid, antisocial, and certain other personality disorders. Famous developmental psychologist Simon Baron-Cohen proposes in his book Zero Degrees of Empathy that the common element in all such behaviors is a total lack of empathy.
Ever on guard and cautious and seeing threats everywhere, people like Eduardo continually expect to be the targets of some trickery (see Figure 16-2). They find “hidden” meanings, which are usually belittling or threatening, in everything. In a study that required people to role-play, participants with paranoia were more likely than control participants to read hostile intentions into the actions of others (Turkat et al., 1990). In addition, they more often chose anger as the appropriate role-play response.

Quick to challenge the loyalty or trustworthiness of acquaintances, people with paranoid personality disorder remain cold and distant. A woman might avoid confiding in anyone, for example, for fear of being hurt; or a husband might, without any justification, persist in questioning his wife’s faithfulness. Although inaccurate and inappropriate, their suspicions are not usually delusional; the ideas are not so bizarre or so firmly held as to clearly remove the individuals from reality (Millon, 2011).

People with this disorder are critical of weakness and fault in others, particularly at work (McGurk et al., 2013). They are unable to recognize their own mistakes, though, and are extremely sensitive to criticism. They often blame others for the things that go wrong in their lives, and they repeatedly bear grudges (Rotter, 2011). As many as 4.4 percent of adults in the United States experience this disorder, which is apparently more common in men than in women (APA, 2013; Sansone & Sansone, 2011).

**How Do Theorists Explain Paranoid Personality Disorder?** The theories that have been proposed to explain paranoid personality disorder, like those about most other personality disorders, have received little systematic research (Triebwasser et al., 2013). Psychodynamic theories, the oldest of these explanations, trace the pattern to early interactions with demanding parents, particularly distant, rigid fathers and overcontrolling, rejecting mothers (Caligor & Clarkin, 2010; Williams, 2010). (You will see that psychodynamic explanations for almost all the personality disorders begin the same way—with repeated mistreatment during childhood and lack of love.) According to one psychodynamic view, some people come to view their environment as hostile as a result of their parents’ persistently unreasonable demands. They must always be on the alert because they cannot trust others, and they are likely to develop feelings of extreme anger. They also project these feelings onto others and, as a result, feel increasingly persecuted (Koenigsberg et al., 2001). Similarly, some cognitive theorists suggest that people with paranoid personality disorder generally hold broad maladaptive assumptions, such as “People are evil” and “People will attack you if given the chance” (Beck & Weishaar, 2014; Weishaar & Beck, 2006; Beck et al., 2004).

Biological theorists propose that paranoid personality disorder has genetic causes (APA, 2013; Bernstein & Useda, 2007). An early study that looked at self-reports of suspiciousness in 3,810 Australian twin pairs found that if one twin was excessively suspicious, the other had an increased likelihood of also being suspicious (Kendler et al., 1987). Once again, however, it is important to note that such similarities between twins might also be the result of common environmental experiences.

**Treatments for Paranoid Personality Disorder** People with paranoid personality disorder do not typically see themselves as needing help, and few come to treatment willingly (Millon, 2011). Furthermore, many who are in treatment view the role of patient as inferior and distrust and rebel against their therapists.
Personality Disorders

(Kellett & Hardy, 2013; Bender, 2005). Thus it is not surprising that therapy for this disorder, as for most other personality disorders, has limited effect and moves very slowly (Piper & Joyce, 2001).

Object relations therapists—the psychodynamic therapists who give center stage to relationships—try to see past the patient’s anger and work on what they view as his or her deep wish for a satisfying relationship (Caligor & Clarkin, 2010; Salvatore et al., 2005). Self-therapists—the psychodynamic clinicians who focus on the need for a healthy and unified self—try to help clients reestablish self-cohesion (a unified personality), which they believe has been lost in the person’s continuing negative focus on others (Vermote et al., 2010; Silverstein, 2007). Cognitive and behavioral techniques have also been used to treat people with paranoid personality disorder, and are often combined into an integrated cognitive-behavioral approach. On the behavioral side, therapists help clients to master anxiety-reduction techniques and to improve their skills at solving interpersonal problems. On the cognitive side, therapists guide the clients to develop more realistic interpretations of other people’s words and actions and to become more aware of other people’s points of view (Kellett & Hardy, 2013; Leahy, Beck, & Beck, 2005). Antipsychotic drug therapy seems to be of limited help (Birkeland, 2013; Silk & Jibson, 2010).

Schizoid Personality Disorder

People with schizoid personality disorder persistently avoid and are removed from social relationships and demonstrate little in the way of emotion (APA, 2013). Like people with paranoid personality disorder, they do not have close ties with other people. The reason they avoid social contact, however, has nothing to do with paranoid feelings of distrust or suspicion; it is because they genuinely prefer to be alone. Take Eli:

Eli, a student at the local technical institute, had been engaged in several different Internet certificate programs over the past few years, and was about to engage in yet another, when his mother, confused as to why he would not apply for a traditional degree at a “real” college, insisted he seek therapy. A loner by nature, Eli preferred not to socialize in any traditional sense, having little to no desire to get to know much about the people in his immediate social context. The way Eli saw it, . . . “at least at my school you just go to class and go home.”

Routinely, he slept through much of his day and then spent his evenings, nights, and weekends at the school’s computer lab, “chatting” with others over the Internet while not in class. Notably, people that he chatted with often sought to meet Eli, but he always declined these invitations, stating that he didn’t really have any desire to learn more about them than what they shared over the computer in the chat rooms. He described a family life that was similar to that of his social surroundings; he was mostly oblivious of his younger brother and sister, two outgoing teens, despite the fact that they seemed to hold him in the highest regard, and he had recently alienated himself entirely from his father, who had left the family several years earlier. . . .

A marked deficit in social interest was notable in Eli, as were frequent behavioral eccentricities. . . . At best, he had acquired a peripheral . . . role in social and family relationships. . . . Rather than venturing outward, he had increasingly removed himself from others and from sources of potential growth and gratification. Life was uneventful, with extended periods of solitude interspersed.

(Millon, 2011)
People like Eli, often described as “loners,” make no effort to start or keep friendships, take little interest in having sexual relationships, and even seem indifferent to their families. They seek out jobs that require little or no contact with others. When necessary, they can form work relations to a degree, but they prefer to keep to themselves. Many live by themselves as well. Not surprisingly, their social skills tend to be weak. If they marry, their lack of interest in intimacy may create marital or family problems.

People with schizoid personality disorder focus mainly on themselves and are generally unaffected by praise or criticism. They rarely show any feelings, expressing neither joy nor anger. They seem to have no need for attention or acceptance; are typically viewed as cold, humorless, or dull; and generally succeed in being ignored. This disorder is present in 3.1 percent of the adult population (APA, 2013; Sansone & Sansone, 2011). Men are slightly more likely to experience it than are women, and men may also be more impaired by it.

How Do Theorists Explain Schizoid Personality Disorder?

Many psychodynamic theorists, particularly object relations theorists, propose that schizoid personality disorder has its roots in an unsatisfied need for human contact (Caligor & Clarkin, 2010; Kernberg & Caligor, 2005). The parents of people with this disorder, like those of people with paranoid personality disorder, are believed to have been unaccepting or even abusive of their children. Whereas people with paranoid symptoms react to such parenting chiefly with distrust, those with schizoid personality disorder are left unable to give or receive love. They cope by avoiding all relationships.

Cognitive theorists propose, not surprisingly, that people with schizoid personality disorder suffer from deficiencies in their thinking. Their thoughts tend to be vague, empty, and without much meaning, and they have trouble scanning the environment to arrive at accurate perceptions (Kramer & Meystre, 2010). Unable to pick up emotional cues from others, they simply cannot respond to emotions. As this theory might predict, children with schizoid personality disorder develop language and motor skills very slowly, whatever their level of intelligence (APA, 2013; Wolff, 2000, 1991).

Treatments for Schizoid Personality Disorder

Their social withdrawal prevents most people with schizoid personality disorder from entering therapy unless some other disorder, such as alcoholism, makes treatment necessary (Mittal et al., 2007). These clients are likely to remain emotionally distant from the therapist, seem not to care about their treatment, and make limited progress at best (Colli et al., 2014; Millon, 2011).

Cognitive-behavioral therapists have sometimes been able to help people with this disorder experience more positive emotions and more satisfying social interactions (Beck & Weishaar, 2011; Weishaar & Beck, 2006; Beck et al., 2004). On the cognitive end, their techniques include presenting clients with lists of emotions to think about or having them write down and remember pleasurable experiences. On the behavioral end, therapists have sometimes had success teaching social skills to such clients, using role-playing, exposure techniques, and homework assignments as tools. Group therapy is apparently useful when it offers a safe setting for social contact, although people with schizoid personality disorder may resist pressure to take part (Piper & Joyce, 2001). As with paranoid personality disorder, drug therapy seems to offer limited help (Silk & Jibson, 2010; Koenigsberg et al., 2002).
Schizotypal Personality Disorder

People with schizotypal personality disorder display a range of interpersonal problems marked by extreme discomfort in close relationships, very odd patterns of thinking and perceiving, and behavioral eccentricities (APA, 2013). Anxious around others, they seek isolation and have few close friends. Some feel intensely lonely. The disorder is more severe than the paranoid and schizoid personality disorders, as we see in the case of 41-year-old Kevin:

Kevin was a night security guard at a warehouse, where he had worked since his high school graduation more than 20 years ago. His parents, both successful professionals, had been worried for many years, as Kevin seemed entirely disconnected from himself and his surroundings and had never taken initiative to make any changes, even toward a shift supervisory position. They therefore made the referral for therapy, and Kevin simply acquiesced. He explained that he liked his work, as it was a place where he could be by himself in a quiet atmosphere, away from anyone else. He described where he worked as “an empty warehouse; they don’t use it no more but they don’t want no one in there. It’s nice; ‘homey.’”

Throughout the . . . interview, Kevin remained aloof, never once looking at the counselor, usually answering questions with either one-word responses or short phrases, and usually waiting to respond until a second question was asked or the first question was repeated. He described, in . . . short, bizarre answers, a life devoid of almost any human interconnectedness, almost his only tangible contact being his brother, whom he saw only during major holidays. Living alone, he could only remember one significant relationship, and that was with a girl in high school. Very simply, he stated, “We graduated, and then I didn’t see her anymore.” He expressed no apparent loneliness, however, and appeared entirely emotionless regarding any aspect of his life . . .

Kevin . . . often seemed to experience a separation between his mind and his physical body. There was a strange sense of nonbeing or nonexistence, as if his floating conscious awareness carried with it a depersonalized or identityless human form. Behaviorally, his tendency was to be drab, sluggish, and inexpressive. He . . . appeared bland, indifferent, unmotivated, and insensitive to the external world . . . . Most people considered him to be [a] strange person . . . who faded into the background, self-absorbed . . . and lost to the outside world . . . . Bizarre “telepathic” powers enabled him to communicate with mythical or distant others . . . . Kevin also occasionally decompensated when faced with too much, rather than too little, stimulation . . . . He would simply fade out, becoming blank, losing conscious awareness, and turning off the pressures of the outer world.

(Millon, 2011)

As with Kevin, the thoughts and behaviors of people with schizotypal personality disorder can be noticeably disturbed. These symptoms may include ideas of reference—beliefs that unrelated events pertain to them in some important way—and bodily illusions, such as sensing an external “force” or presence. A number of people with this disorder see themselves as having special extrasensory abilities, and some believe that they have magical control over others. Examples of schizotypal eccentricities include repeatedly arranging cans to align their labels, organizing closets extensively, or wearing an odd assortment of clothing. The emotions of these individuals may be inappropriate, flat, or humorless.

People with schizotypal personality disorder often have great difficulty keeping their attention focused. Correspondingly, their conversation is typically digressive.
and vague, even sprinkled with loose associations (Millon, 2011). Like Kevin, they tend to drift aimlessly and lead an idle, unproductive life (Hengartner et al., 2014). They are likely to choose undemanding jobs in which they can work below their capacity and are not required to interact with other people. Surveys suggest that 3.9 percent of adults—slightly more males than females—display schizotypal personality disorder (Rosell et al., 2014; Sansone & Sansone, 2011).

How Do Theorists Explain Schizotypal Personality Disorder? Because the symptoms of schizotypal personality disorder so often resemble those of schizophrenia, researchers have hypothesized that similar factors may be at work in both disorders. A wide range of studies have supported such expectations (Hazlett et al., 2014; Rosell et al., 2014; Thompson et al., 2014). Investigators have found that schizotypal symptoms, like schizophrenic patterns, are often linked to family conflicts and to psychological disorders in parents. They have also learned that defects in attention and short-term memory may contribute to schizotypal personality disorder, just as they apparently do to schizophrenia. For example, research participants with either disorder perform poorly on backward masking, a laboratory test of attention that requires a person to identify a visual stimulus immediately after a previous stimulus has flashed on and off the screen. People with these disorders have a hard time shutting out the first stimulus in order to focus on the second. Finally, researchers have linked schizotypal personality disorder to some of the same biological factors found in schizophrenia, such as high activity of the neurotransmitter dopamine, enlarged brain ventricles, smaller temporal lobes, and loss of gray matter (Ettinger et al., 2014). As you read in Chapter 14, there are indications that these biological factors may have a genetic base.

Although these findings do suggest a close relationship between schizotypal personality disorder and schizophrenia, the personality disorder also has been linked to disorders of mood (Lentz, Robinson, & Bolton, 2010). More than half of people with schizotypal personality disorder also suffer from major depressive disorder at some point in their lives (APA, 2013). Moreover, relatives of people with depression have a higher than usual rate of schizotypal personality disorder, and vice versa. Thus, at the very least, this personality disorder is not tied exclusively to schizophrenia.

Treatments for Schizotypal Personality Disorder Therapy is as difficult in cases of schizotypal personality disorder as it is in cases of paranoid and schizoid personality disorders. Most therapists agree on the need to help these clients “reconnect” with the world and recognize the limits of their thinking and their powers. The therapists may thus try to set clear limits—for example, by requiring punctuality—and work on helping the clients recognize where their views end and those of the therapist begin. Other therapy goals are to increase positive social contacts, ease loneliness, reduce overstimulation, and help the individuals become more aware of their personal feelings (Colli et al., 2014; Sperry, 2003; Piper & Joyce, 2001).

Cognitive–behavioral therapists further combine cognitive and behavioral techniques to help people with schizotypal personality disorder function more effectively. Using cognitive interventions, they try to teach clients to evaluate their unusual thoughts or perceptions objectively and to ignore the inappropriate ones (Beck & Weishaar, 2011; Weishaar & Beck, 2006; Beck et al., 2004). Therapists may keep track of clients’ odd or magical predictions, for example, and later point out their inaccuracy. When clients are speaking and begin to digress, the therapists might ask them to sum up what they are trying to say. In addition, specific
behavioral methods, such as speech lessons, social skills training, and tips on appropriate dress and manners, have sometimes helped clients learn to blend in better with and be more comfortable around others (Farmer & Nelson-Gray, 2005).

Antipsychotic drugs have been given to people with schizotypal personality disorder, again because of the disorder’s similarity to schizophrenia. In low doses the drugs appear to have helped some people, usually by reducing certain of their thought problems (Rosenbluth & Sinyor, 2012; Silk & Jibson, 2010).

**“Dramatic” Personality Disorders**

The cluster of “dramatic” personality disorders includes the antisocial, borderline, histrionic, and narcissistic personality disorders. The behaviors of people with these problems are so dramatic, emotional, or erratic that it is almost impossible for them to have relationships that are truly giving and satisfying.

These personality disorders are more commonly diagnosed than the others. However, only the antisocial and borderline personality disorders have received much study, partly because they create so many problems for other people. The causes of the disorders, like those of the odd personality disorders, are not well understood. Treatments range from ineffective to moderately effective.

**Antisocial Personality Disorder**

Sometimes described as “psychopaths” or “sociopaths,” people with antisocial personality disorder persistently disregard and violate others’ rights (APA, 2013). Aside from substance use disorders, this is the disorder most closely linked to adult criminal behavior. DSM-5 stipulates that a person must be at least 18 years of age to receive this diagnosis; however, most people with antisocial personality disorder displayed some patterns of misbehavior before they were 15, including truancy, running away, cruelty to animals or people, and destroying property.

Robert Hare, a leading researcher of antisocial personality disorder, recalls an early professional encounter with a prison inmate named Ray:

> In the early 1960s, I found myself employed as the sole psychologist at the British Columbia Penitentiary. . . . I wasn’t in my office for more than an hour when my first “client” arrived. He was a tall, slim, dark-haired man in his thirties. The air around him seemed to buzz, and the eye contact he made with me was so direct and intense that I wondered if I had ever really looked anybody in the eye before. That stare was unrelenting—he didn’t indulge in the brief glances away that most people use to soften the force of their gaze.

> Without waiting for an introduction, the inmate—“I’ll call him Ray”—opened the conversation: “Hey, Doc, how’s it going? Look, I’ve got a problem. I need your help. I’ve got a problem. I need your help. I’d really like to talk to you about this.”

> Eager to begin work as a genuine psychotherapist, I asked him to tell me about it. In response, he pulled out a knife and waved it in front of my nose, all the while smiling and maintaining that intense eye contact.

> Once he determined that I wasn’t going to push the button, he explained that he intended to use the knife not on me but on another inmate who had been making overtures to his “protégé,” a prison term for the more passive member of a homosexual pairing. Just why he was telling me this was not immediately clear, but I soon suspected that he was checking me out, trying to determine what sort of a prison employee I was . . .

> From that first meeting on, Ray managed to make my eight-month stint at the prison miserable. His constant demands on my time and his attempts to manipulate

**Notorious disregard**

In 2009, financier Bernard Madoff was sentenced to 150 years in prison after defrauding thousands of investors, including many charities, of billions of dollars. Given his overwhelming disregard for others and other such qualities, some clinicians suggest that Madoff displays antisocial personality disorder.

continued on the next page
me into doing things for him were unending. On one occasion, he convinced me that he would make a good cook . . . and I supported his request for a transfer from the machine shop (where he had apparently made the knife). What I didn’t consider was that the kitchen was a source of sugar, potatoes, fruit, and other ingredients that could be turned into alcohol. Several months after I had recommended the transfer, there was a mighty eruption below the floorboards directly under the warden's table. When the commotion died down, we found an elaborate system for distilling alcohol below the floor. Something had gone wrong and one of the pots had exploded. There was nothing unusual about the presence of a still in a maximum-security prison, but the audacity of placing one under the warden's seat shook up a lot of people. When it was discovered that Ray was the brains behind the bootleg operation, he spent some time in solitary confinement.

Once out of “the hole,” Ray appeared in my office as if nothing had happened and asked for a transfer from the kitchen to the auto shop—he really felt he had a knack, he saw the need to prepare himself for the outside world, if he only had the time to practice he could have his own body shop on the outside . . . I was still feeling the sting of having arranged the first transfer, but eventually he wore me down.

Soon afterward I decided to leave the prison to pursue a Ph.D. in psychology, and about a month before I left Ray almost persuaded me to ask my father, a roofing contractor, to offer him a job as part of an application for parole.

Ray had an incredible ability to con not just me but everybody. He could talk, and lie, with a smoothness and a directness that sometimes momentarily disarmed even the most experienced and cynical of the prison staff. When I met him he had a long criminal record behind him (and, as it turned out, ahead of him); about half his adult life had been spent in prison, and many of his crimes had been violent . . . . He lied endlessly, lazily, about everything, and it disturbed him not a whit whenever I pointed out something in his file that contradicted one of his lies. He would simply change the subject and spin off in a different direction. Finally convinced that he might not make the perfect job candidate in my father’s firm, I turned down Ray’s request—and was shaken by his nastiness at my refusal.

Before I left the prison for the university, I took advantage of the prison policy of letting staff have their cars repaired in the institution’s auto shop—where Ray still worked, thanks (he would have said no thanks) to me. The car received a beautiful paint job and the motor and drivetrain were reconditioned.

With all our possessions on top of the car and our baby in a plywood bed in the backseat, my wife and I headed for Ontario. The first problems appeared soon after we left Vancouver, when the motor seemed a bit rough. Later, when we encountered some moderate inclines, the radiator boiled over. A garage mechanic discovered ball bearings in the carburetor’s float chamber; he also pointed out where one of the hoses to the radiator had clearly been tampered with. These problems were repaired easily enough, but the next one, which arose while we were going down a long hill, was more serious. The brake pedal became very spongy and then simply dropped to the floor—no brakes, and it was a long hill. Fortunately, we made it to a service station, where we found that the brake line had been cut so that a slow leak would occur. Perhaps it was a coincidence that Ray was working in the auto shop when the car was being tuned up, but I had no doubt that the prison “telegraph” had informed him of the owner of the car.

(Hare, 1993)

Like Ray, people with antisocial personality disorder lie repeatedly (APA, 2013). Many cannot work consistently at a job; they are absent frequently and are likely to quit their jobs altogether (Hengartner et al., 2014). Usually they are also careless with money and frequently fail to pay their debts. They are often impulsive, taking action without thinking of the consequences (Millon, 2011). Correspondingly,
they may be irritable, aggressive, and quick to start fights. Many travel from place to place.

Recklessness is another common trait: people with antisocial personality disorder have little regard for their own safety or for that of others, even their children. They are self-centered as well, and are likely to have trouble maintaining close relationships. Usually they develop a knack for gaining personal profit at the expense of other people. Because the pain or damage they cause seldom concerns them, clinicians commonly say that they lack a moral conscience (see Table 16–2 on the next page). They think of their victims as weak and deserving of being conned, robbed, or even physically harmed (see PsychWatch on page 534).

Surveys indicate that 3.6 percent of adults in the United States meet the criteria for antisocial personality disorder (Sansone & Sansone, 2011). The disorder is as much as four times more common among men than women.

Because people with this disorder are often arrested, researchers frequently look for people with antisocial patterns in prison populations (Pondé et al., 2014; Black et al., 2010). It is estimated that at least 40 percent of people in prison meet the diagnostic criteria for this disorder (Naidoo & Mkize, 2012). Among men in urban jails, the antisocial personality pattern has been linked strongly to past arrests for crimes of violence (De Matteo et al., 2005). The criminal behavior of many people with this disorder declines after the age of 40; some, however, continue their criminal activities throughout their lives (APA, 2013).

Studies and clinical observations also indicate that people with antisocial personality disorder have higher rates of alcoholism and other substance use disorders than do the rest of the population (Brook et al., 2014; Reese et al., 2010). Perhaps intoxication and substance misuse help trigger the development of antisocial personality disorder by loosening a person’s inhibitions. Perhaps this personality disorder somehow makes a person more prone to abuse substances. Or perhaps antisocial personality disorder and substance use disorders both have the same cause, such
as a deep-seated need to take risks. Interestingly, drug users with the personality disorder often cite the recreational aspects of drug use as their reason for starting and continuing it.

It appears that children with conduct disorder and an accompanying attention-deficit/hyperactivity disorder have a heightened risk of developing antisocial personality disorder (APA, 2013; Black et al., 2010). These two childhood disorders, which you will read about in Chapter 17, often bear similarities to antisocial personality disorder. Like adults with antisocial personality disorder, children with a conduct disorder persistently lie and violate rules and other people’s rights, and children with attention-deficit/hyperactivity disorder lack foresight and judgment and fail to learn from experience. Intriguing as these observations may be, however, the precise connection between the childhood disorders and antisocial personality disorder has been difficult to pinpoint.

How Do Theorists Explain Antisocial Personality Disorder?

Explanations of antisocial personality disorder come from the psychodynamic, behavioral, cognitive, and biological models. As with many other personality disorders, psychodynamic theorists propose that this one begins with an absence of parental love during infancy, leading to a lack of basic trust (Meloy & Yakeley, 2010; Sperry, 2003). In this view, some children—the ones who develop antisocial personality disorder—respond to the early inadequacies by becoming emotionally distant, and they bond with others through the use of power and destructiveness. In support of the psychodynamic explanation, researchers have found that people with this disorder are more likely than others to have had significant stress in their childhoods, particularly in such forms as family poverty, family violence, child abuse, and parental conflict or divorce (Kumari et al., 2014; Martens, 2005).

Many behavioral theorists have suggested that antisocial symptoms may be learned through modeling, or imitation (Gaynor & Baird, 2007). As evidence, they point to the higher rate of antisocial personality disorder found among the parents of people with this disorder (APA, 2013; Paris,
Other behaviorists have suggested that some parents unintentionally teach antisocial behavior by regularly rewarding a child’s aggressive behavior (Kazdin, 2005). When the child misbehaves or becomes violent in reaction to the parents’ requests or orders, for example, the parents may give in to restore peace. Without meaning to, they may be teaching the child to be stubborn and perhaps even violent.

The cognitive view says that people with antisocial personality disorder hold attitudes that trivialize the importance of other people’s needs (Elwood et al., 2004). Such a philosophy of life, some theorists suggest, may be far more common in our society than people recognize (see Figure 16-3). Cognitive theorists further propose that people with this disorder have genuine difficulty recognizing points of view or feelings other than their own (Herpertz & Bertsch, 2014).

Finally, studies suggest that biological factors may play an important role in antisocial personality disorder. Researchers have found that antisocial people, particularly those who are highly impulsive and aggressive, have lower serotonin activity than other people (Thompson, Ramos, & Willett, 2014; Patrick, 2007). As you’ll recall (see page 300), both impulsivity and aggression also have been linked to low serotonin activity in other kinds of studies, so the presence of this biological factor in people with antisocial personality disorder is not surprising.

Other studies indicate that individuals with this disorder display deficient functioning in their frontal lobes, particularly in the prefrontal cortex (Liu et al., 2014; Thompson et al., 2014). Among other duties, this brain region helps people to plan and execute realistic strategies and to have personal characteristics such as sympathy, judgment, and empathy. These are, of course, all qualities found wanting in people with antisocial personality disorder.

In yet another line of research, investigators have found that people with antisocial personality disorder often feel less anxiety than other people, and so lack a key ingredient for learning (Blair et al., 2005). This would help explain why they have so much trouble learning from negative life experiences or tuning in to the emotional cues of others. Why should people with antisocial personality disorder experience less anxiety than other people? The answer may lie once again in the biological realm. Research participants with the disorder often respond to warnings or expectations of stress with low brain and bodily arousal, such as slow autonomic arousal and slow EEG waves (Thompson et al., 2014; Perdeci et al., 2010). Perhaps because of the low arousal, they easily tune out threatening or emotional situations, and so are unaffected by them.

It could also be argued that because of their physical underarousal, people with antisocial personality disorder would be more likely than other people to take risks and seek thrills. That is, they may be drawn to antisocial activity precisely because it meets an underlying biological need for more excitement and arousal. In support of this idea, as you read earlier, antisocial personality disorder often goes hand in hand with sensation-seeking behavior.

### Treatments for Antisocial Personality Disorder

Treatments for people with antisocial personality disorder are typically ineffective (Millon, 2011; Meloy & Yakeley, 2010). Major obstacles to treatment include the individuals’ lack of conscience, desire to change, or respect for therapy (Colli et al., 2014; Kantor, 2006). Most of those in therapy have been forced to participate by an employer,
Mass Murders: Where Does Such Violence Come From?

On December 14, 2012, a young man entered the Sandy Hook Elementary School in Newtown, Connecticut, and killed 26 people—20 of them young children—in a shooting rampage. In the months prior to this massacre, gunmen killed 12 moviegoers at a Batman movie in Colorado, 6 churchgoers at a Sikh temple in Wisconsin, and 5 workers at a sign company in Minnesota. In 2014, a young man went on a rampage near the campus of the University of California, Santa Barbara, killing 6 people and injuring 13 others. Listening to some of the psychologists and psychiatrists interviewed immediately after these events, you might conclude that the mental health field has a clear understanding of why individuals commit mass murders and has effective treatments for those capable of such acts. In fact, that is not the case. The clinical field has offered various theories about mass murderers, but enlightening research and effective interventions have been elusive (Montaldo, 2014; Friedman, 2013; Ferguson et al., 2011).

What do we know about mass killings? We know they involve, by definition, the murder of four or more people in the same location and at around the same time. FBI records also indicate that, on average, mass killings occur in the United States every 2 weeks, 75 percent of them feature a lone killer, 67 percent involve the use of guns, and most are committed by males (Hoyer & Heath, 2012).

We also know that despite appearances, the number of mass killings is not on the rise overall (O’Neill, 2012). What is increasing, however, are certain kinds of mass killings. So-called pseudocommando mass murders, for example, are on the rise. A pseudocommando mass murderer “kills in public during the daytime, plans his offense well in advance, and comes prepared with a powerful arsenal of weapons. He has no escape planned and expects to be killed during the incident” (Knoll, 2010). Similarly, “autogenetic” (self-generated) massacres, in which individuals kill people indiscriminately to fulfill a personal agenda, seem be on the rise (Bowers et al., 2010; Mullen, 2004).

Theorists have suggested a number of factors to help explain pseudocommando, autogenetic, and other mass killings, including the availability of guns, bullying behavior, substance abuse, the proliferation of violent media and video games, dysfunctional homes, contagion effects, and mental illness. In fact, regardless of one’s position on gun control, media violence, or the like, almost everyone, including most clinicians, believes that mass killers typically suffer from a mental disorder (Archer, 2012). Which mental disorder? On this, there is little agreement. Each of the following has been suggested:

- Antisocial, borderline, paranoid, or schizotypal personality disorder
- Schizophrenia or severe bipolar disorder
- Intermittent explosive disorder—an impulse-control disorder featuring repeated, unprovoked verbal and/or behavioral outbursts (Coccaro, 2012)
- Severe disorder of mood, stress, or anxiety

Although these and yet other disorders have been proposed, none has received clear support in the limited research conducted on mass killings. On the other hand, several variables have emerged as a common denominator across the various studies: severe feelings of anger and resentment, feelings of being persecuted or grossly mistreated, and desires for revenge (Knoll, 2010). That is, regardless of which psychological disorder a mass killer may display, he usually is driven by this set of feelings. For a growing number of clinical researchers, this repeated finding suggests that research should focus less on diagnosis and much more on identifying and understanding these particular feelings.

Clearly, clinical research must expand its focus on this area of enormous social concern. Granted it is a difficult problem to investigate, partly because so few mass killers survive their crimes, but the clinical field has managed to gather useful insights about other elusive areas. And, indeed, in the aftermath of the horrific massacre of so many innocent children in the Newtown shooting rampage, a wave of heightened determination and commitment seems to have seized the clinical community (Archer, 2012).
Personality Disorders

their school, or the law, or they come to the attention of therapists when they also
develop another psychological disorder (Agronin, 2006).

Some cognitive therapists try to guide clients with antisocial personality dis-
order to think about moral issues and about the needs of other people (Beck &
Weishaar, 2011; Weishaar & Beck, 2006; Beck et al., 2004). In a similar vein, a
number of hospitals and prisons have tried to create a therapeutic community
for people with this disorder, a structured environment that teaches responsibility
toward others (Harris & Rice, 2006). Some patients seem to profit from such ap-
proaches, but it appears that most do not. In recent years, clinicians have also used
psychotropic medications, particularly atypical antipsychotic drugs, to treat people
with antisocial personality disorder. Some report that these drugs help reduce
certain features of the disorder, but systematic studies of this claim are still needed
(Brown et al., 2014; Thompson et al., 2014; Silk & Jibson, 2010).

Borderline Personality Disorder

People with borderline personality disorder display great instability, including
major shifts in mood, an unstable self-image, and impulsivity (APA, 2013). These
characteristics combine to make their relationships very unstable as well (Paris,
2010, 2005). Some of Ellen Farber’s difficulties are typical:

Ellen Farber, a 35-year-old, single insurance company executive, came to a psychi-
atriic emergency room . . . with complaints of depression and the thought of driving
her car off a cliff. An articulate, moderately overweight, sophisticated woman, Ms.
Farber appeared to be in considerable distress. She reported a 6-month period
of increasingly persistent dysphoria and lack of energy and pleasure. Feeling as if
she were “made of lead,” Ms. Farber had recently been spending 15–20 hours a
day in her bed. She also reported daily episodes of binge eating, when she would
consume “anything I can find.” . . . She reported problems with intermittent binge
eating since adolescence, but these had recently increased in frequency, resulting in
a 20-pound weight gain. . . .

She attributed her increasing symptoms to financial difficulties. Ms. Farber had
been fired from her job two weeks before. . . . She claimed it was because she
“owed a small amount of money.” When asked to be more specific, she reported
owing $150,000 to her former employers and another $100,000 to various local
banks. . . . From age 30 to age 33, she had used her employer’s credit cards to
finance weekly “buying binges,” accumulating the $150,000 debt. She . . . reported
that spending money alleviated her chronic feelings of loneliness, isolation, and sad-
ess. Experiencing only temporary relief, every few days she would impulsively buy
expensive jewelry, watches, or multiple pairs of the same shoes. . . .

In addition to lifelong feelings of emptiness, Ms. Farber described chronic uncer-
tainty about what she wanted to do in life and with whom she wanted to be friends.
She had many brief, intense relationships with both men and women, but her quick
temper led to frequent arguments and even physical fights. Although she had always
thought of her childhood as happy and carefree, when she became depressed, she
began to recall [being abused verbally and physically by her mother].

(Spitzer et al., 1994, pp. 395–397)

Like Ellen Farber, people with borderline personality disorder swing in and out
of very depressive, anxious, and irritable states that last anywhere from a few hours
to a few days or more (see Table 16–3 on the next page). Their emotions seem to

>borderline personality disorder
A personality disorder characterized by repeated instability in interpersonal relations-
ships, self-image, and mood and by impulsive behavior.
be always in conflict with the world around them. They are prone to bouts of anger, which sometimes result in physical aggression and violence (Scott et al., 2014). Just as often, however, they direct their impulsive anger inward and inflict bodily harm on themselves. Many seem troubled by deep feelings of emptiness.

Borderline personality disorder is a complex disorder, and it is fast becoming one of the more common conditions seen in clinical practice. Many of the patients who come to mental health emergency rooms are people with this disorder who have intentionally hurt themselves. Their impulsive, self-destructive activities may range from alcohol and substance abuse to delinquency, unsafe sex, and reckless driving (Kienast et al., 2014; Coffey et al., 2011). Many engage in self-injurious or self-mutilation behaviors, such as cutting or burning themselves or banging their heads (Bracken-Minor & McDevitt-Murphy, 2014; Chiesa, Sharp, & Fonagy, 2011). As you saw in Chapter 9, such behaviors typically cause immense physical suffering, but those with borderline personality disorder often feel as if the physical discomfort offers relief from their emotional suffering. It may serve as a distraction from their emotional or interpersonal upsets, “snapping” them out of an “emotional overload” (Sadeh et al., 2014; Stanley & Brodsky, 2005). Many try to hurt themselves as a way of dealing with their chronic feelings of emptiness, boredom, and identity confusion. Scars and bruises also may provide them with a kind of concrete evidence of their emotional distress (Paris, 2010, 2005). Many theorists believe that borderline patterns are more severe among people who injure themselves (Whipple & Fowler, 2011).

Suicidal threats and actions are also common (Amore et al., 2014; Zimmerman et al., 2014; Leichsenring et al., 2011). Studies suggest that around 75 percent of people with borderline personality disorder attempt suicide at least once in their lives. However, the content of their suicidal thoughts and plans can be quite different from the typical suicidal ideation seen in people with affective disorders. They may not report feeling like they want to die; instead, they may view suicidal behavior as a way to escape from distressing emotional states, to “cleanse” themselves of pain, or to attract attention to their emotional and interpersonal needs (Amore et al., 2014; Neeki et al., 2006). The suicide risk may be greatest when they are experiencing a high level of emotional distress (Paris, 2005). The depressed mood that often accompanies the effects of their self-destructive behavior may act as a mood management strategy for their emotional suffering (Koenigsberg et al., 2004).

### Personality disorders—at the movies

In the 1999 film *Girl, Interrupted*, based on a best-selling memoir, Susanna Kaysen (left, played by actress Winona Ryder) is befriended by Lisa Rowe (played by Angelina Jolie) at a mental hospital. Kaysen received a diagnosis of borderline personality disorder at the hospital, while Rowe’s diagnosis was antisocial personality disorder. However, Rowe’s rages, dramatic mood shifts, impulsivity, and other symptoms were actually more characteristic of a borderline picture than were Kaysen’s.

### Table: 16-3

<table>
<thead>
<tr>
<th>Personality Disorder</th>
<th>Cluster</th>
<th>Similar Disorders</th>
<th>Responsiveness to Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraphbic</td>
<td>Odd</td>
<td>Schizophrenia; delusional disorder</td>
<td>Modest</td>
</tr>
<tr>
<td>Schizoid</td>
<td>Odd</td>
<td>Schizophrenia; delusional disorder</td>
<td>Modest</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>Odd</td>
<td>Schizophrenia; delusional disorder</td>
<td>Modest</td>
</tr>
<tr>
<td>Antisocial</td>
<td>Dramatic</td>
<td>Conduct disorder</td>
<td>Poor</td>
</tr>
<tr>
<td>Borderline</td>
<td>Dramatic</td>
<td>Depressive disorder; bipolar disorder</td>
<td>Moderate</td>
</tr>
<tr>
<td>Histrionic</td>
<td>Dramatic</td>
<td>Somatic symptom disorder; depressive disorder</td>
<td>Modest</td>
</tr>
<tr>
<td>Narcissistic</td>
<td>Dramatic</td>
<td>Cyclothymic disorder (mild bipolar disorder)</td>
<td>Poor</td>
</tr>
<tr>
<td>Avoidant</td>
<td>Anxious</td>
<td>Social anxiety disorder</td>
<td>Moderate</td>
</tr>
<tr>
<td>Dependent</td>
<td>Anxious</td>
<td>Separation anxiety disorder; depressive disorder</td>
<td>Moderate</td>
</tr>
<tr>
<td>Obsessive-compulsive</td>
<td>Anxious</td>
<td>Obsessive-compulsive disorder</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
Personality Disorders

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lives; as many as 10 percent actually commit suicide. It is common for people with this disorder to enter clinical treatment by way of the emergency room after a suicide attempt.

People with borderline personality disorder frequently form intense, conflict-ridden relationships in which their feelings are not necessarily shared by the other person. They may come to idealize another person’s qualities and abilities after just a brief first encounter. They also may violate the boundaries of relationships (Lazarus et al., 2014; Skodol et al., 2002). Thinking in dichotomous (black-and-white) terms, they quickly feel rejected and become furious when their expectations are not met; yet they remain very attached to the relationships (Berenson et al., 2011). In fact, they have recurrent fears of impending abandonment and frequently engage in frantic efforts to avoid real or imagined separations from important people in their lives (Gunderson, 2011; Sherry & Whilde, 2008). Sometimes they cut themselves or carry out other self-destructive acts to prevent partners from leaving.

People with borderline personality disorder typically have dramatic identity shifts. Because of this unstable sense of self, their goals, aspirations, friends, and even sexual orientation may shift rapidly (Westen et al., 2011; Skodol, 2005). They may also occasionally have a sense of dissociation, or detachment, from their own thoughts or bodies (Zanarini et al., 2014). Indeed, at times they may have no sense of themselves at all, leading to the feelings of emptiness described earlier.

According to surveys, 5.9 percent of the adult population display borderline personality disorder (Zanarini et al., 2014; Sansone & Sansone, 2011). Close to 75 percent of the patients who receive the diagnosis are women (Gunderson, 2011). The course of the disorder varies from person to person. In the most common pattern, the person’s instability and risk of suicide peak during young adulthood and then gradually wane with advancing age (APA, 2013; Hurt & Oltmanns, 2002). Given the chaotic and unstable relationships characteristic of borderline personality disorder, it is not surprising that the disorder tends to interfere with job performance even more than most other personality disorders do (Hengartner et al., 2014).

How Do Theorists Explain Borderline Personality Disorder?

Because a fear of abandonment torments so many people with borderline personality disorder, psychodynamic theorists have looked once again to early parental relationships to explain the disorder (Gabbard, 2010). Object relations theorists, for example, propose that an early lack of acceptance by parents may lead to a loss of self-esteem, increased dependence, and an inability to cope with separation (Caligor & Clarkin, 2010; Sherry & Whilde, 2008).

Research has found that this is consistent with the early childhoods of people with borderline personality disorder. In many cases, when they were children, their parents neglected or rejected them, verbally abused them, or otherwise behaved inappropriately (Martin-Blanco et al., 2014). Their childhoods were often marked by multiple parent substitutes, divorce, death, or traumas such as physical or sexual abuse. Indeed, research suggests that early sexual abuse is a common contributor to the development of borderline personality disorder (Newnham & Janca, 2014; Huang, Yang, & Wu, 2010). Indeed, children who experience such abuse are four times more likely to develop the disorder than those who do not (Zelkowitz et al., 2001). At the same time, it is important to recognize that the vast majority of people with histories of physical, sexual, or psychological abuse do not go on to develop borderline personality disorder (Skodol, 2005).

Borderline personality disorder also has been linked to certain biological abnormalities, such as an overly reactive amygdala, the brain structure that is closely tied to fear and other negative emotions, and an underactive prefrontal cortex, the brain region linked to planning, self-control, and decision making (Mitchell et al., 2014; Richter et al., 2014; Stone, 2014). Moreover, people with borderline personality disorder who are particularly impulsive—those who attempt suicide or are very

BETWEEN THE LINES

Whither “Borderline”?

In 1938 the term “borderline” was introduced by psychoanalyst Adolph Stern. He used it to describe patients who were more disturbed than “neurotic” patients, yet not psychotic (Bateman, 2011; Stern, 1938). The term has since evolved to its present usage.

BETWEEN THE LINES

Letting It Out

Expression of Anger Only 23 percent of adults report openly expressing their anger (Kanner, 2005, 1995). Around 39 percent say that they hide or contain their anger, and 23 percent walk away to try to collect themselves.

The Myth of Venting Contrary to the notion that “letting off steam” reduces anger, angry participants in one study acted much more aggressively after hitting a punching bag than did angry participants who first sat quietly for a while (Bushman et al., 1999).
aggressive toward others—apparently have lower brain serotonin activity (Soloff et al., 2014; Herpertz, 2011). Some, although not all, studies have tied this lower activity to an abnormality of the 5-HTT gene (the serotonin transporter gene) (Amad et al., 2014; Ni et al., 2006). As you may recall, this gene also has been linked to major depressive disorder, suicide, aggression, and impulsivity (see page 223). In accord with these various biological findings, close relatives of those with borderline personality disorder are five times more likely than the general population to have the same personality disorder (Amad et al., 2014; Torgersen, 2000, 1984; Kendler et al., 1991).

A number of theorists currently use a biosocial theory to explain borderline personality disorder (Neacsiu & Linehan, 2014; Rizvi et al., 2011). According to this view, the disorder results from a combination of internal forces (for example, difficulty identifying and controlling one’s emotions, social skill deficits, abnormal neurotransmitter reactions) and external forces (for example, an environment in which a child’s emotions are punished, ignored, trivialized, or disregarded). Parents may, for instance, misinterpret their child’s intense emotions as exaggerations or attempts at manipulation rather than as serious expressions of unsettled internal states. According to the biosocial theory, if children have intrinsic difficulty identifying and controlling their emotions and if their parents teach them to ignore their intense feelings, they may never learn how properly to recognize and control their emotional arousal, how to tolerate emotional distress, or when to trust their emotional responses (Herpertz & Bertsch, 2014; Lazarus et al., 2014; Gratz & Tull, 2011). Such children will be at risk for the development of borderline personality disorder. This theory has received some, but not consistent, research support (Gill & Warburton, 2014).

Note that the biosocial theory is similar to one of the leading explanations for eating disorders. As you saw in Chapter 11, theorist Hilde Bruch proposed that children whose parents do not respond accurately to the children’s internal cues may never learn to identify cues of hunger, thus increasing their risk of developing an eating disorder (see pages 359–360). Small wonder that a large number of people with borderline personality disorder also have an eating disorder (Gabriel & Waller, 2014; Rowe et al., 2010). Recall, for example, Ellen Farber’s dysfunctional eating pattern.

Finally, some sociocultural theorists suggest that cases of borderline personality disorder are particularly likely to emerge in cultures that change rapidly. As a

**BETWEEN THE LINES**

Road Ragers Part 1

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>Percentage of drivers who yell out obscenities when upset by other motorists</td>
</tr>
<tr>
<td>14%</td>
<td>Motorists who have shouted at or had a honking match with another driver in the past year</td>
</tr>
<tr>
<td>7%</td>
<td>Motorists who “give the finger” when upset by other drivers</td>
</tr>
<tr>
<td>7%</td>
<td>Drivers who shake their fists when upset by other drivers</td>
</tr>
<tr>
<td>2%</td>
<td>Motorists who have had a fist fight with another driver</td>
</tr>
</tbody>
</table>

(Information from: OFWW, 2004; Kanner, 2005, 1995; Herman, 1999)
culture loses its stability, they argue, it inevitably leaves many of its members with problems of identity, a sense of emptiness, high anxiety, and fears of abandonment. Family units may come apart, leaving people with little sense of belonging. Changes of this kind in society today may explain growing reports of the disorder (Millon, 2011; Paris, 2010, 1991).

**Treatments for Borderline Personality Disorder** It appears that psychotherapy can eventually lead to some degree of improvement for people with borderline personality disorder (Omar et al., 2014; Neville, 2014). It is, however, extraordinarily difficult for a therapist to strike a balance between empathizing with the borderline client’s dependency and anger and challenging his or her way of thinking (Goodman, Edwards, & Chung, 2014; Gabbard, 2010). Given the emotionally draining demands of clients with borderline personality disorder, some therapists refuse to treat such people. The wildly fluctuating interpersonal attitudes of clients with the disorder can also make it difficult for therapists to establish collaborative working relationships with them (Colli et al., 2014; Goodman et al., 2014). Moreover, clients with borderline personality disorder may violate the boundaries of the client–therapist relationship (for example, calling the therapist’s emergency contact number to discuss matters of a less urgent nature) (Colli et al., 2014; Gutheil, 2005).

Traditional psychoanalysis has not been effective with people with borderline personality disorder (Doering et al., 2010). The clients often experience the psychoanalytic therapist’s reserved style and encouragement of free association as suggesting disinterest and abandonment. The clients may also have difficulty tolerating interpretations made by psychoanalytic therapists and see them as attacks.

Contemporary psychodynamic approaches, such as *relational psychoanalytic therapy* (see page 67), in which therapists take a more supportive and egalitarian posture, have been more effective than traditional psychoanalytic approaches. In approaches of this kind, therapists work to provide an empathic setting within which borderline clients can explore their unconscious conflicts and pay particular attention to their central relationship disturbance, poor sense of self, and pervasive loneliness and emptiness (Goodman et al., 2014; Gabbard, 2010, 2001; Muran et al., 2010). Research has found that contemporary psychodynamic treatments sometimes help reduce suicide attempts, self-harm behaviors, and the number of hospitalizations and bring at least some improvement to those with the disorder (Neville, 2014; Clarkin et al., 2010, 2001).

Over the past two decades, an integrative treatment for borderline personality disorder, called *dialectical behavior therapy* (*DBT*), has been receiving considerable research support and is now considered the treatment of choice in many clinical circles (Neacsiu & Linehan, 2014; Linehan et al., 2006, 2002, 2001). DBT, developed by psychologist Marsha Linehan, grows largely from the cognitive-behavioral treatment model (see *MediaSpeak* on the next page). It includes a number of the same cognitive and, at the same time, behavioral techniques that are applied to other disorders: homework assignments, psychoeducation, the teaching of social and other skills, modeling by the therapist, clear goal setting, reinforcements for appropriate behaviors, ongoing assessment of the client’s behaviors and treatment progress, and collaborative examinations by the client and therapist of the client’s ways of thinking (Neacsiu & Linehan, 2014; Rizvi et al., 2011).

DBT also borrows heavily from the humanistic and contemporary psychodynamic approaches, placing the client–therapist relationship itself at the center of treatment interactions, making sure that appropriate treatment boundaries are adhered to and providing an environment of acceptance and validation of the client. Indeed, DBT therapists regularly empathize with their borderline clients and with the emotional turmoil they are experiencing; locate kernels of truth in the clients’ complaints or demands; and examine alternative ways for them to address valid needs.

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**In Their Words**

“Anger is a brief lunacy.”

Horace, Roman poet
Marsha M. Linehan, 68 . . . told her story in public for the first time last week. . . .

Dr. Linehan . . . was driven by a mission to rescue people who are chronically suicidal, often as a result of borderline personality disorder, an enigmatic condition characterized in part by self-destructive urges. “I honestly didn’t realize at the time that I was dealing with myself,” she said. “But I suppose it’s true that I developed a therapy that provides the things I needed for so many years and never got.”

She learned the central tragedy of severe mental illness the hard way, banging her head against the wall of a locked room.

Marsha Linehan arrived at the Institute of Living on March 9, 1961, at age 17, and quickly became the sole occupant of the seclusion room on the unit known as Thompson Two, for the most severely ill patients. The staff saw no alternative: The girl attacked herself habitually, burning her wrists with cigarettes, slashing her arms, her legs, her midsection, using any sharp object she could get her hands on.

The seclusion room . . . had no such weapon. Yet her urge to die only deepened. . . . “I was in hell,” she said. “And I made a vow: when I get out, I’m going to come back and get others out of here.” . . .

It took years of study in psychology—she earned a Ph.D. at Loyola in 1971—before she found an answer. On the surface, it seemed obvious: She . . . accepted herself as she was. . . . That basic idea—radical acceptance, she now calls it—became increasingly important as she began working with patients, first at a suicide clinic in Buffalo and later as a researcher. . . .

Dr. Linehan was closing in on two seemingly opposed principles that could form the basis of a treatment: acceptance of life as it is, not as it is supposed to be; and the need to change, despite that reality and because of it. . . .

She chose to treat people with a diagnosis that she would have given her young self: borderline personality disorder. . . .

Yet even as she climbed the academic ladder, moving from the Catholic University of America to the University of Washington in 1977, she understood from her own experience that acceptance and change were hardly enough. . . . She relied on therapists herself, off and on over the years, for support and guidance. . . .

Dr. Linehan’s own emerging approach to treatment—now called dialectical behavior therapy, or D.B.T.—would also have to include day-to-day skills. . . . She borrowed some of these from other behavioral therapies and added elements, like opposite action, in which patients act opposite to the way they feel when an emotion is inappropriate; and mindfulness meditation. . . .

In studies in the 1980s and ’90s, researchers at the University of Washington and elsewhere tracked the progress of hundreds of borderline patients at high risk of suicide who attended weekly dialectical therapy sessions. Compared with similar patients who got other experts’ treatments, those who learned Dr. Linehan’s approach made far fewer suicide attempts, landed in the hospital less often and were much more likely to stay in treatment. D.B.T. is now widely used for a variety of clients, including juvenile offenders. . . .

Most remarkably, perhaps, Dr. Linehan has reached a place where she can stand up and tell her story, come what will. “I’m a very happy person now.” . . . “I still have ups and downs, of course, but I think no more than anyone else.”

DBT is often supplemented by the clients’ participation in social skill-building groups (Roney & Cannon, 2014). In these groups, clients practice new ways of relating to other people in a safe environment and receive validation and support from other group members.

DBT has received more research support than any other treatment for borderline personality disorder (Neacsiu & Linehan, 2014; Roepke et al., 2011). Many clients who receive DBT become more able to tolerate stress; develop new, more appropriate, social skills; respond more effectively to life situations; and develop a more stable identity. They also have significantly fewer suicidal behaviors and require fewer hospitalizations than those who receive other forms of treatment (Klein & Miller, 2011). In addition, they are more likely to remain in treatment and to report less anger, more social gratification, improved work performance, and reductions in substance abuse (Rizvi et al., 2011).

Antidepressant, antibipolar, antianxiety, and antipsychotic drugs have helped calm the emotional and aggressive storms of some people with borderline personality disorder (Black et al., 2014; Knappich et al., 2014; Martinho et al., 2014). However, given the numerous suicide attempts by people with this disorder, the use of drugs on an outpatient basis is controversial (Gunderson, 2011). Additionally, clients with the disorder have been known to adjust or discontinue their medication dosages without consulting their clinicians. Many professionals believe that psychotropic drug treatment for borderline personality disorder should be used largely as an adjunct to psychotherapy approaches, and indeed many clients seem to benefit from a combination of psychotherapy and drug therapy (Omar et al., 2014; Soloff, 2005).

Histrionic Personality Disorder

People with histrionic personality disorder, once called hysterical personality disorder, are extremely emotional—they are typically described as “emotionally charged”—and continually seek to be the center of attention (APA, 2013). Their exaggerated moods and neediness can complicate life considerably, as we see in the case of Lucinda:

Unhappy over her impending divorce, Lucinda decided to seek counseling. She arrived at her first session wearing a very provocative outfit, including a revealing blouse and extremely short skirt. Her hair had been labored over, and she had on an excessive amount of makeup—very carefully applied.

When asked to discuss her separation, Lucinda first insisted that the therapist call her Cindy, saying, “All my close friends call me that, and I like to think that you and I will become very good friends here.” She said that her husband, Morgan had suddenly abandoned her—“probably brainwashed by some young trollop.” She proceeded to describe their break-up in a theatrical manner. Over a span of five minutes, her voice ranged from whispers to cries of agony and back again to whispers; she waved her arms dramatically while making some points and sat totally still while making others; and she moved back and forth from a curled-in-a-ball sitting position to a standing position marked by pacing. She seemed to be on center stage—except, of course, she was alone talking to a therapist whom she was meeting for the first time.

Lucinda said that when Morgan first told her that he wanted a divorce, she did not know whether she could go on. The pain was palpable. After all, they had been so “incredibly and irrevocably” close, and he had been so very devoted to her. He had always taken such wonderful care of her, always placed her first. She was his everything.

Continued on the next page
She said that initially she even had thoughts of doing away with herself. But, of
course, she knew that she had to pull herself together. So many people needed her
to be strong. So many people relied on her, particularly her “dear friends” and her
sister. She had deep and special relationships with them all, relationships that had to
be nurtured. Right now, her inner circle was rallying around her—supporting her, car-
ing for her, even feeding her when she was too weak to feed herself. But she knew
that soon she must go back to taking care of their needs.

The therapy discussion returned to the divorce itself. She told the therapist that
without Morgan she would now need a man to take care of her—emotionally and
every other way. She asked the therapist if she looked like a 30-year-old woman.
When he declined to answer, she said, “I know you’re not supposed to say.”

When the therapist attempted to steer the conversation back to Morgan,
Lucinda became petulant and asked, “Do we really need to talk about that abu-
sive lout?” Pressed on the word “abusive,” Lucinda replied that she was referring
to “mental cruelty.” Morgan had, after all, called her inadequate and worthless
throughout their marriage and told her that everything good in her life had been
due to him. When her therapist pointed out that this seemed to contradict the rosy
picture she had just painted of Morgan and their married life, she quickly changed
the subject, stating that she thought she was running out of time to have a child.
She said her life would be “absolutely ruined” if she did not have a child by the
age of 32.

As the session came to a close, Lucinda’s therapist suggested that it might be
useful for him to meet with Morgan. She loved the idea, saying, “Then he’ll know
the competition he has!”

When he met with Morgan a few days later, the therapist heard a very different
story than the one presented by Lucinda. Morgan said, “I really loved Cindy—still
do—but she was always flying off the handle at the slightest thing, telling me I’m
no good or that I didn’t care about her. She would often complain that I spent too
much time at work—keep in mind that I never work more than 30 hours a week—
and too little time attending to her and her needs. I never wanted anyone but her,
and I have no plans to become involved with anyone else. But I just can’t take life
with her anymore. It’s too draining.”

The real surprise for the therapist came when Morgan described Lucinda’s
social life. He said that she had virtually no close friends. The “clear and special”
friendships she had spoken of during her therapy session were really just casual rela-
tionships—relationships of only a few months or so. As for her sister, Lucinda and
she might talk on the phone once a month and get together in person twice a year.
Yes, Morgan said, she did always talk about how close she was to other people and
how much others wanted and needed her, but he never saw any evidence of it. He
acknowledged that she drew a lot of attention from people. But he believed that
there was a simple explanation for that. “Look at the way she dresses,” he noted,
“and consider her never-ending flirtatious behavior. That will certainly get people’s
attention, keep them around for a while. But she confuses this kind of attention with
deep and lasting interest by others.”

People with histrionic personality disorder are always “on stage,” using theatri-
cal gestures and mannerisms and grandiose language to describe ordinary everyday
events. Like chameleons, they keep changing themselves to attract and impress an
audience, and in their pursuit they change not only their surface characteristics—
according to the latest fads—but also their opinions and beliefs. In fact, their speech
is actually scanty in detail and substance, and they seem to lack a sense of who they
really are.
Approval and praise are their lifeblood; they must have others present to witness their exaggerated emotional states. Vain, self-centered, demanding, and unable to delay gratification for long, they overreact to any minor event that gets in the way of their quest for attention. Some make suicide attempts, often to manipulate others (APA, 2013; Lambert, 2003).

People with histrionic personality disorder may draw attention to themselves by exaggerating their physical illnesses or fatigues. They may also behave very provocatively and try to achieve their goals through sexual seduction. Most obsess over how they look and how others will perceive them, often wearing bright, eye-catching clothes. They exaggerate the depth of their relationships, considering themselves to be the intimate friends of people who see them as no more than casual acquaintances. Often they become involved with romantic partners who may be exciting but who do not treat them well.

This disorder was once believed to be more common in women than in men, and clinicians long described the “hysterical wife” (Anderson et al., 2001). Research, however, has revealed gender bias in past diagnoses (APA, 2013; Fowler et al., 2007; Ford & Widiger, 1989). When evaluating case studies of people with a mixture of histrionic and antisocial traits, clinicians in several studies gave a diagnosis of histrionic personality disorder to women more than men. Surveys suggest that 1.8 percent of adults have this personality disorder, with males and females equally affected (APA, 2013; Sansone & Sansone, 2011).

How Do Theorists Explain Histrionic Personality Disorder?
The psychodynamic perspective was originally developed to help explain cases of hysteria (see Chapter 10), so it is no surprise that psychodynamic theorists continue to have a strong interest in histrionic personality disorder. Most psychodynamic theorists believe that as children, people with this disorder had cold and controlling parents who left them feeling unloved and afraid of abandonment (Horowitz & Lerner, 2010; Bender et al., 2001). To defend against deep-seated fears of loss, the children learned to behave dramatically, inventing crises that would require other people to act protectively.

Cognitive explanations look instead at the lack of substance and extreme suggestibility that people with histrionic personality disorder have. Cognitive theorists see these people as becoming less and less interested in knowing about the world at large because they are so self-focused and emotional. With no detailed memories of what they never learned, they must rely on hunches or on other people to provide them with direction in life (Blagov et al., 2007). Some cognitive theorists also believe that people with this disorder hold a general assumption that they are helpless to care for themselves, and so they constantly seek out others who will meet their needs (Weishaar & Beck, 2006; Beck et al., 2004).

Sociocultural, particularly multicultural, theorists believe that histrionic personality disorder is produced in part by cultural norms and expectations. Until recently, our society encouraged girls to hold on to childhood and dependency as they grew up. The vain, dramatic, and selfish behavior of the histrionic personality may actually be an exaggeration of femininity as our culture once defined it (Fowler et al., 2007). Similarly, some clinical observers claim that histrionic personality disorder is diagnosed less often in Asian and other cultures that discourage overt sexualization and more often in Hispanic American and Latin American cultures that are more tolerant of overt sexualization (Patrick, 2007; Trull & Widiger, 2003). Researchers have not, however, investigated this claim systematically.
Treatments for Histrionic Personality Disorder

People with histrionic personality disorder are more likely than those with most other personality disorders to seek out treatment on their own (Tyrer et al., 2003). Working with them can be very difficult, however, because of the demands, tantrums, and seductiveness they are likely to deploy. Another problem is that these clients may pretend to have important insights or to change during treatment merely to please the therapist. To head off such problems, therapists must remain objective and maintain strict professional boundaries (Colli et al., 2014; Blagov et al., 2007).

Cognitive therapists have tried to help people with this disorder to change their belief that they are helpless and also to develop better, more deliberate ways of thinking and solving problems (Beck & Weishaar, 2014; Weishaar & Beck, 2006; Beck et al., 2004). Psychodynamic therapy and various group therapy formats have also been used (Horowitz & Lerner, 2010). In all these approaches, therapists ultimately aim to help the clients recognize their excessive dependency, find inner satisfaction, and become more self-reliant. Clinical case reports suggest that each of the approaches can be useful. Drug therapy appears less successful except as a means of relieving the depressive symptoms that some patients have (Bock et al., 2010; Grossman, 2004; Koenigsberg et al., 2002).

Narcissistic Personality Disorder

People with narcissistic personality disorder are generally grandiose, need much admiration, and feel no empathy with others (APA, 2013). Convinced of their own great success, power, or beauty, they expect constant attention and admiration from those around them. Frederick, the man whom we met at the beginning of this chapter, was one such person. So is Steven, a 30-year-old artist, married, with one child:

Steven came to the attention of a therapist when his wife insisted that they seek marital counseling. According to her, Steve was “selfish, ungenerous and preoccupied with his work.” Everything at home had to “revolve around him, his comfort, moods and desires, no one else’s.” She claimed that he contributed nothing to the marriage, except a rather meager income. He shirked all “normal” responsibilities and kept “throwing chores in her lap,” and she was “getting fed up with being the chief cook and bottlewasher, tired of being his mother and sleep-in maid.”

On the positive side, Steve’s wife felt that he was basically a “gentle and good-natured guy with talent and intelligence.” But this wasn’t enough. She wanted a husband, someone with whom she could share things. In contrast, he wanted, according to her, “a mother, not a wife”; he didn’t want “to grow up, he didn’t know how to give affection, only to take it when he felt like it, nothing more, nothing less.”

Steve presented a picture of an affable, self-satisfied and somewhat disdainful young man. He was employed as a commercial artist, but looked forward to his evenings and weekends when he could turn his attention to serious painting. He claimed that he had to devote all of his spare time and energies to “fulfill himself,” to achieve expression in his creative work. . . .

His relationships with his present co-workers and social acquaintances were pleasant and satisfying, but he did admit that most people viewed him as a “bit self-centered, cold and snobbish.” He recognized that he did not know how to share his thoughts and feelings with others, that he was much more interested in himself than in them and that perhaps he always had “preferred the pleasure” of his own company to that of others.

(Millon, 1969, pp. 261–262)
In the Greek myth, Narcissus died enraptured by the beauty of his own reflection in a pool, pining away with longing to possess his own image. His name has come to be synonymous with extreme self-involvement, and indeed people with narcissistic personality disorder have a grandiose sense of self-importance. They exaggerate their achievements and talents, expecting others to recognize them as superior, and often appear arrogant. They are very choosy about their friends and associates, believing that their problems are unique and can be appreciated only by other “special,” high-status people. Because of their charm, they often make favorable first impressions, yet they can rarely maintain long-term relationships (Campbell & Miller, 2011).

Like Steven, people with narcissistic personality disorder are seldom interested in the feelings of others. They may not even be able to empathize with such feelings (Baskin-Sommers et al., 2014; Roepke & Vater, 2014; Ritter et al., 2011). Many take advantage of other people to achieve their own ends, perhaps partly out of envy; at the same time they believe others envy them. Though grandiose, some react to criticism or frustration with bouts of rage, humiliation, or embitterment (APA, 2013; Campbell & Miller, 2011; Rotter, 2011). Others may react with cold indifference. And still others become extremely pessimistic and filled with depression. They may have periods of zest that alternate with periods of disappointment (Ronningstam, 2011).

As many as 6.2 percent of adults display narcissistic personality disorder, up to 75 percent of them men (APA, 2013; Sansone & Sansone, 2011). Narcissistic-type behaviors and thoughts are common and normal among teenagers and do not usually lead to adult narcissism (APA, 2013) (see MindTech on the next page).

**How Do Theorists Explain Narcissistic Personality Disorder?** Psychodynamic theorists more than others have theorized about narcissistic personality disorder, and they again propose that the problem begins with cold, rejecting parents. They argue that some people with this background spend their lives defending against feeling unsatisfied, rejected, unworthy, ashamed, and wary of the world (Roepke & Vater, 2014; Ronningstam, 2011; Bornstein, 2005). They do so by repeatedly telling themselves that they are actually perfect and desirable, and also by seeking admiration from others. Object relations theorists—the psychodynamic theorists who emphasize relationships—interpret the grandiose self-image as a way for these people to convince themselves that they are totally self-sufficient and without need of warm relationships with their parents or anyone else (Celani, 2014; Diamond & Meehan, 2013). In support of the psychodynamic theories, research has found that children who are abused or who lose parents through adoption, divorce, or death are at particular risk for the later development of narcissistic personality disorder (Kernberg, 2010, 1992, 1989). Studies also show that people with this disorder do indeed earn relatively high shame and rejection scores on various scales and believe that other people are basically unavailable to them (Ritter et al., 2014; Bender et al., 2001).

A number of cognitive-behavioral theorists propose that narcissistic personality disorder may develop when people are treated too positively rather than too negatively in early life. They hold that certain children acquire a superior and grandiose attitude when their “admiring or doting parents” teach them to “overvalue their...
In recent years, however, digital technology has ushered in the era of the selfie, a cousin to the self-portrait. Safe to say, just about every cell phone user has taken a selfie. In fact, more than 90 percent of all teens have now posted a photo of themselves online (Pew Research Foundation, 2014). These self-photos have created such a stir that the word “selfie” was elected “Word of the Year 2013” by the Oxford English Dictionary.

As the selfie phenomenon has grown, opinions about selfies have intensified. It seems like people either love them or hate them. This is true in the field of psychology as well. Some psychologists view taking selfies as a form of narcissistic behavior, while others view them more positively.

First, the negative perspective. Many sociocultural theorists see a link between narcissistic personality disorder and “eras of narcissism” in society (Paris, 2014). They suggest that social values in society break down periodically, producing generations of self-centered, materialistic youth. Some of these theorists consider today’s selfie generation a perfect example of a current era of narcissism. This theory has gained a large following, but it is not supported by research. One team of researchers, for example, found no relationship at all between how many selfies people post and how high they score on a narcissism personality scale (Alloway, 2014; Alloway et al., 2014).

This lack of support for the narcissism viewpoint does not mean that selfies, especially repeated selfie behaviors, are completely harmless. Sherry Turkle (2013), an influential technology psychologist, believes that the near-reflexive instinct to photograph oneself may limit deeper engagements with the environment or experiencing events to their fullest (Eisold, 2013). Turkle also suggests that people who post an endless stream of selfies are often seeking external validation of their self-worth, even if that pursuit may not rise to a level of clinical narcissism.

Psychologists also observe that posting too many “selfies” may alienate those who view the poster’s social media profile (Miller, 2013). Studies have found, for example, that people often take a negative view of friends and family members who excessively post photos to their Facebook sites (Houghton, 2013).

On the positive side, a number of psychologists believe that the criticisms and concerns about the selfie movement have been overstated. Media psychologist Pamela Rutledge (2013) views selfies as an inevitable by-product of “technology-enabled self-expression.” She believes that selfie behaviors are simply confusing to individuals of a predigital generation. Moreover, she concludes that the selfie trend, for digital natives, can enhance explorations of identity, help identify one’s interests, develop artistic expression, help people craft a meaningful narrative of their life experiences, and even reflect more realistic body images (for example, posting “selfies” without makeup). In therapy, selfies can serve as a springboard to discuss issues that clients are reluctant to broach on their own (Sifferlin, 2013).

In short, like other technological trends you’ve read about, the selfie phenomenon has received mixed grades from psychology researchers and practitioners so far.
self worth,” repeatedly rewarding them for minor accomplishments or for no accomplishment at all (Millon, 2011; Sperry, 2003).

Many sociocultural theorists see a link between narcissistic personality disorder and “eras of narcissism” in society (Paris, 2014; Campbell & Miller, 2011). They suggest that family values and social ideals in certain societies periodically break down, producing generations of young people who are self-centered and materialistic and have short attention spans. Western cultures in particular, which encourage self-expression, individualism, and competitiveness, are considered likely to produce such generations of narcissism. In fact, one worldwide study conducted on the Internet found that respondents from the United States had the highest narcissism scores, followed, in descending order, by those from Europe, Canada, Asia, and the Middle East (Foster, Campbell, & Twenge, 2003).

**Treatments for Narcissistic Personality Disorder** Narcissistic personality disorder is one of the most difficult personality patterns to treat because the clients are unable to acknowledge weaknesses, to appreciate the effect of their behavior on others, or to incorporate feedback from others (Campbell & Miller, 2011). The clients who consult therapists usually do so because of a related disorder such as depression (APA, 2013; Piper & Joyce, 2001). Once in treatment, the clients may try to manipulate the therapist into supporting their sense of superiority. Some also seem to project their grandiose attitudes onto their therapists and develop a love-hate stance toward them (Colli et al., 2014; Shapiro, 2004).

Psychodynamic therapists seek to help people with this disorder recognize and work through their basic insecurities and defenses (Diamond & Meehan, 2013; Messer & Abbass, 2010). Cognitive therapists, focusing on the self-centered thinking of such individuals, try to redirect the clients’ focus onto the opinions of others, teach them to interpret criticism more rationally, increase their ability to empathize, and change their all-or-nothing notions (Beck & Weishaar, 2014; Weishaar & Beck, 2006; Beck et al., 2004). None of the approaches have had clear success, however (Paris, 2014; Dhawan et al., 2010).

**“Anxious” Personality Disorders**

The cluster of “anxious” personality disorders includes the avoidant, dependent, and obsessive-compulsive personality disorders. People with these patterns typically display anxious and fearful behavior. Although many of the symptoms of these personality disorders are similar to those of the anxiety and depressive disorders, researchers have not found direct links between this cluster and those disorders (O’Donohue et al., 2007). As with most of the other personality disorders, research support for the various explanations is very limited. At the same time, treatments for these disorders appear to be modestly to moderately helpful—considerably better than for other personality disorders.

**Avoidant Personality Disorder**

People with avoidant personality disorder are very uncomfortable and inhibited in social situations, overwhelmed by feelings of inadequacy, and extremely sensitive to negative evaluation (APA, 2013). They are so fearful of being rejected that they give no one an opportunity to reject them—or to accept them either:

Perhaps what made Malcolm pursue counseling was the painful awareness of his inability to socialize at a party hosted by a professor. A first-semester computer
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science graduate student, Malcolm watched other new students in his program fraternize at this gathering while he suffered in silence. He wanted desperately to join in, but, as he described it, “I was totally at a loss as to how to go about talking to anyone.” The best feeling in the world, he stated, was getting out of there. The following Monday, he came to the university counseling center, realizing he would have to be able to function in this group, but not before his first teaching experience that morning, which he described as “the most terrifying feeling I have ever encountered.” As an undergrad, he spent most of his time alone in the computer lab working on new programs, which was what he most enjoyed as “no one was looking over my shoulder or judging me.” In contrast to this, with his teaching assistantship duties . . . he felt he constantly ran the risk of being made to look like a fool in front of a large audience.

When asked about personal relationships he had previously enjoyed, Malcolm admitted that any interaction was a source of frustration and worry. From the moment he left home for undergraduate school, he lived alone, attended functions alone, and found it nearly impossible to make conversation with anyone. . . . The expectancy that people would be rejecting . . . precipitated profound gloom. . . . Despite a longing to relate and be accepted, Malcolm . . . maintained a safe distance from all emotional involvement. [He] became remote from others and from needed sources of support. He . . . had learned to be watchful, on guard against ridicule, and ever alert . . . to the most minute traces of annoyance expressed by others.

(Millon, 2011)

People like Malcolm actively avoid occasions for social contact. At the center of this withdrawal lies not so much poor social skills as a dread of criticism, disapproval, or rejection. They are timid and hesitant in social situations, afraid of saying something foolish or of embarrassing themselves by blushing or acting nervous. Even in intimate relationships they express themselves very carefully, afraid of being shamed or ridiculed.

People with this disorder believe themselves to be unappealing or inferior to others. They exaggerate the potential difficulties of new situations, so they seldom take risks or try out new activities. They usually have few or no close friends, though they actually yearn for intimate relationships, and frequently feel depressed and lonely. As a substitute, some develop an inner world of fantasy and imagination (Millon, 2011).

Avoidant personality disorder is similar to social anxiety disorder (see Chapter 5), and many people with one of these disorders also experience the other (Eikenaes et al., 2013). The similarities include a fear of humiliation and low confidence. Some theorists believe that there is a key difference between the two disorders—namely, that people with social anxiety disorder primarily fear social circumstances, while people with the personality disorder tend to fear close social relationships (Lampe & Sunderland, 2013; Kantor, 2010). Other theorists, however, believe that the two disorders reflect the same core of psychopathology and should be combined (Eikenaes et al., 2013; Herbert, 2007).

Around 2.4 percent of adults have avoidant personality disorder, men as frequently as women (APA, 2013; Sansone & Sansone, 2011). Many children and teenagers are also painfully shy and avoid other people, but this is usually just a normal part of their development.
How Do Theorists Explain Avoidant Personality Disorder?

Theorists often assume that avoidant personality disorder has the same causes as anxiety disorders—such as early traumas, conditioned fears, upsetting beliefs, or biochemical abnormalities. However, with the exception of social anxiety disorder, research has not yet tied the personality disorder directly to the anxiety disorders (Herbert, 2007). Psychodynamic, cognitive, and behavioral explanations of avoidant personality disorder are the most popular among clinicians.

Psychodynamic theorists focus mainly on the general sense of shame that people with avoidant personality disorder feel (Svartberg & McCullough, 2010). Some trace the shame to childhood experiences such as early bowel and bladder accidents. If parents repeatedly punish or ridicule a child for having such accidents, the child may develop a negative self-image. This may lead to the child's feeling unlovable throughout life and distrusting the love of others.

Similarly, cognitive theorists believe that harsh criticism and rejection in early childhood may lead certain people to assume that others in their environment will always judge them negatively. These people come to expect rejection, misinterpret the reactions of others to fit that expectation, discount positive feedback, and generally fear social involvements—setting the stage for avoidant personality disorder (Rees & Pritchard, 2013; Weishaar & Beck, 2006; Beck et al., 2004). In several studies, participants with this disorder were asked to recall their childhood, and their descriptions supported both the psychodynamic and the cognitive theories (Carr & Francis, 2010; Herbert, 2007). They remembered, for example, feeling criticized, rejected, and isolated; receiving little encouragement from their parents; and experiencing few displays of parental love or pride.

Behavioral theorists suggest that people with avoidant personality disorder typically fail to develop normal social skills, a failure that helps maintain the disorder. In support of this position, several studies have found social skills deficits among people with avoidant personality disorder (Kantor, 2010; Herbert, 2007). Most behaviorists agree, however, that these deficits first develop as a result of the individuals avoiding so many social situations.

Treatments for Avoidant Personality Disorder

People with avoidant personality disorder come to therapy in the hope of finding acceptance and affection. Keeping them in treatment can be a challenge, however, for many of them soon begin to avoid the sessions. Often they distrust the therapist's sincerity and start to fear his or her rejection. Thus, as with several of the other personality disorders, a key task of the therapist is to gain the person's trust (Colli et al., 2014; Leichsenring & Salzer, 2014).

Beyond building trust, therapists tend to treat people with avoidant personality disorder much as they treat people with social anxiety disorder and other anxiety disorders (Svartberg, Stiles, & Seltzer, 2004; Markovitz, 2001). Such approaches have had at least modest success (Kantor, 2010; Porcerelli et al., 2007). Psychodynamic therapists try to help clients recognize and resolve the unconscious conflicts that may be operating (Leichsenring & Salzer, 2014; Messer & Abbass, 2010). Cognitive therapists help them change their distressing beliefs and thoughts, carry on in the face of painful emotions, and improve their self-image (Rees & Pritchard, 2013; Weishaar & Beck, 2006; Beck et al., 2004). Behavioral therapists provide social skills training as well as exposure treatments that require people to gradually increase their social contacts (Herbert, 2007; Farmer & Nelson-Gray, 2005). Group therapy formats, especially groups that follow cognitive and behavioral principles, have the added advantage of providing clients with practice in social interactions (Herbert et al., 2005). Antianxiety and antidepressant drugs are sometimes useful in reducing the social anxiety of people with the disorder, although the symptoms may return when medication is stopped (Ripoll et al., 2011; Fava et al., 2002).
Dependent Personality Disorder

People with dependent personality disorder have a pervasive, excessive need to be taken care of (APA, 2013). As a result, they are clinging and obedient, fearing separation from their parent, spouse, or other person with whom they are in a close relationship. They rely on others so much that they cannot make the smallest decision for themselves. Matthew is a case in point.

Matthew is a 34-year-old single man who lives with his mother and works as an accountant. He is... very unhappy after having just broken up with his girlfriend. His mother had disapproved of his marriage plans... Matthew felt trapped and forced to choose between his mother and his girlfriend, and because “blood is thicker than water,” he had decided not to go against his mother’s wishes. His mother... is a very domineering woman. Matthew is afraid of disagreeing with [her] for fear that she will not be supportive of him and he will then have to fend for himself. He criticizes himself for being weak... He alternates between resentment and a “Mother knows best” attitude. He feels that his own judgment is poor.

Matthew works at a job several grades below what his education and talent would permit. On several occasions he has turned down promotions because he didn’t want the responsibility of having to supervise other people or make independent decisions. He has worked for the same boss for 10 years... and is... highly regarded as a dependable and unobtrusive worker. He has two very close friends whom he has had since early childhood. He has lunch with one of them every single workday and feels lost if his friend is sick and misses a day.

Matthew is the youngest of four children... He was “babied and spoiled” by his mother and elder sisters. He had considerable separation anxiety as a child... difficulty falling asleep unless his mother stayed in the room... and unbearable homesickness when he occasionally tried “sleepovers.” As a child he was teased by other boys because of his lack of assertiveness and was often called a baby. He has lived at home his whole life except for 1 year of college, from which he returned because of homesickness.

It is normal and healthy to depend on others, but those with dependent personality disorder constantly need assistance with even the simplest matters and have extreme feelings of inadequacy and helplessness. Afraid that they cannot care for themselves, they cling desperately to friends or relatives.

As you just observed, people with avoidant personality disorder have difficulty initiating relationships. In contrast, people with dependent personality disorder have difficulty with separation. They feel completely helpless and devastated when a close relationship ends, and they quickly seek out another relationship to fill the void. Many cling persistently to relationships with partners who physically or psychologically abuse them (Loas et al., 2011).

Lacking confidence in their own ability and judgment, people with this disorder seldom disagree with others and allow even important decisions to be made for them (Bornstein, 2012, 2007; Millon, 2011). They may depend on a parent or spouse to decide where to live, what job to have, and which neighbors to befriend. Because they so fear rejection, they are overly sensitive to disapproval and keep trying to meet other people’s wishes and expectations, even if it means volunteering for unpleasant or demeaning tasks.

Many people with dependent personality disorder feel distressed, lonely, and sad; often they dislike themselves. Thus they are at risk for depressive, anxiety, and...
eating disorders (Bornstein, 2012, 2007). Their fear of separation and their feelings of helplessness may leave them particularly prone to suicidal thoughts, especially when they believe that a relationship is about to end (Bornstein, 2012; Kiev, 1989).

Surveys suggest that fewer than 1 percent of the population experience dependent personality disorder (APA, 2013; Sansone & Sansone, 2011). For years, clinicians have believed that more women than men display this pattern, but some research suggests that the disorder is just as common in men (APA, 2013).

**How Do Theorists Explain Dependent Personality Disorder?**

Psychodynamic explanations for dependent personality disorder are very similar to those for depression (Svartberg & McCullough, 2010). Freudian theorists argue, for example, that unresolved conflicts during the oral stage of development can give rise to a lifelong need for nurturance, thus heightening the likelihood of a dependent personality disorder (Bornstein, 2012, 2007, 2005). Similarly, object relations theorists say that early parental loss or rejection may prevent normal experiences of attachment and separation, leaving some children with fears of abandonment that persist throughout their lives (Caligor & Clarkin, 2010). Still other psychodynamic theorists suggest that, to the contrary, many parents of people with this disorder were overinvolved and overprotective, thus increasing their children’s dependency, insecurity, and separation anxiety (Sperry, 2003).

Behaviorists propose that parents of people with dependent personality disorder unintentionally rewarded their children’s clinging and “loyal” behavior, while at the same time punishing acts of independence, perhaps through the withdrawal of love. Alternatively, some parents’ own dependent behaviors may have served as models for their children (Bornstein, 2012, 2007).

Cognitive theorists identify two maladaptive attitudes as helping to produce and maintain this disorder: (1) “I am inadequate and helpless to deal with the world,” and (2) “I must find a person to provide protection so I can cope.” Dichotomous (black-and-white) thinking may also play a key role: “If I am to be dependent, I must be completely helpless,” or “If I am to be independent, I must be alone.” Such thinking prevents sufferers from making efforts to be autonomous (Borge et al., 2010; Weishaar & Beck, 2006; Beck et al., 2004).

**Treatments for Dependent Personality Disorder** In therapy, people with dependent personality disorder usually place all responsibility for their treatment and well-being on the clinician. Thus a key task of therapy is to help patients accept responsibility for themselves (Colli et al., 2014; Guthel, 2005). Because the domineering behaviors of a spouse or parent may help foster a patient’s symptoms, some clinicians suggest couple or family therapy as well, or even separate therapy for the partner or parent (Lebow & Uliaszek, 2010; Nichols, 2004).

Treatment for dependent personality disorder can be at least modestly helpful. Psychodynamic therapy for this pattern focuses on many of the same issues as therapy for depressed people, including the transference of dependency needs onto the therapist (Svartberg & McCullough, 2010). Cognitive-behavioral therapists combine behavioral and cognitive interventions to help the clients take control of their lives. On the behavioral end, the therapists often provide assertiveness training to help the individuals better express their own wishes in relationships (Farmer & Nelson-Gray, 2005). On the cognitive end, the therapists also try to help the clients challenge and change their assumptions of incompetence and helplessness (Borge et al., 2010; Weishaar & Beck, 2006; Beck et al., 2004). Antidepressant drug therapy
A personality disorder marked by such an intense focus on orderliness, perfectionism, and control that the person loses flexibility, openness, and efficiency.

has been helpful for people whose personality disorder is accompanied by depression (Fava et al., 2002).

As with avoidant personality disorder, a group therapy format can be helpful because it provides opportunities for the client to receive support from a number of peers rather than from a single dominant person (Perry, 2005; Sperry, 2003). In addition, group members may serve as models for one another as they practice better ways to express feelings and solve problems.

### Obsessive-Compulsive Personality Disorder

People with obsessive-compulsive personality disorder are so preoccupied with order, perfection, and control that they lose all flexibility, openness, and efficiency (APA, 2013). Their concern for doing everything “right” impairs their productivity, as in the case of Joseph:

Joseph was advised to seek assistance from a therapist following several months of relatively sleepless nights and a growing immobility and indecisiveness at his job. When first seen, he reported feelings of extreme self-doubt and guilt and prolonged periods of tension and diffuse anxiety. It was established early in therapy that he always had experienced these symptoms; they were now merely more pronounced than before.

The precipitant for this sudden increase in discomfort was a forthcoming change in his academic post. New administrative officers had assumed authority at the college, and he was asked to resign his deanship to return to regular departmental instruction. In the early sessions, Joseph spoke largely of his fear of facing classroom students again, wondered if he could organize his material well, and doubted that he could keep classes disciplined and interested in his lectures. It was his preoccupation with these matters that he believed was preventing him from concentrating and completing his present responsibilities.

At no time did Joseph express anger toward the new college officials for the demotion he was asked to accept; he repeatedly voiced his “complete confidence” in the “rationality of their decision.” Yet, when face-to-face with them, he observed that he stuttered and was extremely tremulous.

Joseph was the second of two sons, younger than his brother by three years. His father was a successful engineer, and his mother a high school teacher. Both were “efficient, orderly, and strict” parents. Life at home was “extremely well planned,” with “daily and weekly schedules of responsibility posted” and “vacations arranged a year or two in advance.” Nothing apparently was left to chance. . . . Joseph adopted the “good boy” image. Unable to challenge his brother either physically, intellectually, or socially, he became a “paragon of virtue.” By being punctilious, scrupulous, methodical, and orderly, he could avoid antagonizing his perfectionistic parents, and would, at times, obtain preferred treatment from them. He obeyed their advice, took their guidance as gospel, and hesitated making any decision before gaining their approval. Although he recalled “fighting” with his brother before he was 6 or 7, he “restrained my anger from that time on and never upset my parents again.”

(Millon, 2011, 1969, pp. 278–279)

In Joseph’s concern with rules and order and doing things right, he has trouble seeing the larger picture. When faced with a task, he and others who have obsessive-compulsive personality disorder may become so focused on organization and
details that they fail to grasp the point of the activity. As a result, their work is often behind schedule (some seem unable to finish any job), and they may neglect leisure activities and friendships.

People with this personality disorder set unreasonably high standards for themselves and others. Their behaviors extend well beyond the realm of conscientiousness. They can never be satisfied with their performance, but they typically refuse to seek help or to work with a team, convinced that others are too careless or incompetent to do the job right. Because they are so afraid of making mistakes, they may be reluctant to make decisions.

They also tend to be rigid and stubborn, particularly in their morals, ethics, and values. They live by a strict personal code and use it as a yardstick for measuring others. They may have trouble expressing much affection, and their relationships are sometimes stiff and superficial. In addition, they are often stingy with their time or money. Some cannot even throw away objects that are worn out or useless (APA, 2013).

According to surveys, as many as 7.9 percent of the adult population display obsessive-compulsive personality disorder, with white, educated, married, and employed people receiving the diagnosis most often (APA, 2013; Sansone & Sansone, 2011). Men are twice as likely as women to display the disorder.

Many clinicians believe that obsessive-compulsive personality disorder and obsessive-compulsive disorder are closely related. Certainly, the two disorders share a number of features, and many people who suffer from one of the disorders meet the diagnostic criteria for the other disorder (Pinto et al., 2014; Gordon et al., 2013). However, it is worth noting that people with the personality disorder are more likely to suffer from either major depressive disorder, generalized disorder, or a substance use disorder than from obsessive-compulsive disorder (APA, 2013; Pena-Garijo et al., 2013; Pinto et al., 2008). In fact, researchers have not consistently found a specific link between obsessive-compulsive personality disorder and obsessive-compulsive disorder (Starcevic & Brakoulias, 2014; Gordon et al., 2013).

How Do Theorists Explain Obsessive-Compulsive Personality Disorder? Most explanations of obsessive-compulsive personality disorder borrow heavily from those of obsessive-compulsive disorder, despite the doubts concerning a link between the two disorders. As with so many of the personality disorders, psychodynamic explanations dominate and research evidence is limited.

Freudian theorists suggest that people with obsessive-compulsive personality disorder are anal retentive. That is, because of overly harsh toilet training during the anal stage, they become filled with anger, and they remain fixated at this stage. To keep their anger under control, they persistently resist both their anger and their instincts to have bowel movements. In turn, they become extremely orderly and restrained; many become passionate collectors. Other psychodynamic theorists suggest that any early struggles with parents over control and independence may ignite the aggressive impulses at the root of this personality disorder (Millon, 2011; Bartz et al., 2007).

Cognitive theorists have little to say about the origins of obsessive-compulsive personality disorder, but they do propose that illogical thinking processes help keep it going (Weishaar & Beck, 2006; Beck et al., 2004). They point, for example, to dichotomous thinking, which may produce rigidity and perfectionism. Similarly, they note that people with this disorder tend to misread or exaggerate the potential outcomes of mistakes or errors.
Treatments for Obsessive-Compulsive Personality Disorder

People with obsessive-compulsive personality disorder do not usually believe there is anything wrong with them. They therefore are not likely to seek treatment unless they are also suffering from another disorder, most frequently an anxiety disorder or depression, or unless someone close to them insists that they get treatment (Bartz et al., 2007). Because of this, therapists often feel as though they must “win over” and engage the clients in the therapy process (Colli et al., 2014).

People with obsessive-compulsive personality disorder often respond well to psychodynamic or cognitive therapy (Messer & Abbass, 2010; Svartberg & McCullough, 2010; Weishaar & Beck, 2006). Psychodynamic therapists typically try to help these clients recognize, experience, and accept their underlying feelings and insecurities, and perhaps take risks and accept their personal limitations. Cognitive therapists focus on helping the clients to change their dichotomous—“all or nothing”—thinking, perfectionism, indecisiveness, procrastination, and chronic worrying. A number of clinicians report that people with obsessive-compulsive personality disorder, like those with obsessive-compulsive disorder, respond well to SSRIs, the serotonin-enhancing antidepressant drugs; however, researchers have yet to study this issue fully (Pinto et al., 2008).

Multicultural Factors: Research Neglect

According to the current criteria of DSM-5, a pattern diagnosed as a personality disorder must “deviate markedly from the expectations of the individual’s culture” (APA, 2013). Given the importance of culture in this diagnosis, and given the enormous clinical interest in personality disorders, it is striking how little multicultural research has been conducted on these problems. When all is said and done, clinical theorists have suspicions but little compelling evidence that there are cultural differences in this realm or that such differences are important to the field’s understanding and treatment of personality disorders (Iacovino et al., 2014; Bender et al., 2007).

The lack of multicultural research is of special concern with regard to borderline personality disorder, the pattern characterized by extreme mood fluctuations, outbursts of intense anger, self-injurious behavior, fear of abandonment, feelings of emptiness, problematic relationships, and identity confusion, because many theorists are convinced that gender and other cultural differences may be particularly important in both the development and diagnosis of this disorder.

Around 75 percent of all people who receive a diagnosis of borderline personality disorder are female. Although it may be that women are biologically more prone to the disorder or that diagnostic bias is at work, this gender difference may instead be a reflection of the extraordinary traumas to which many women are subjected as children. Recall, for example, that the childhoods of people with borderline personality disorder tend to be filled with emotional trauma, victimization, violence, and abuse, at times sexual abuse. It may be, a number of theorists argue, that experiences of this kind are prerequisites to the development of borderline personality disorder, that women in our society are particularly subjected to such experiences, and that, in fact, the disorder should more properly be viewed and treated as a special form of posttraumatic stress disorder (Sherry & Whilde, 2008; Hodges, 2003). In the absence of systematic research, however, alternative explanations like this remain untested and corresponding treatments undeveloped.
In a related vein, given the childhood experiences that typically precede borderline personality disorder, some multicultural theorists believe that the disorder may actually be a reaction to persistent feelings of marginality, powerlessness, and social failure (Sherry & Whilde, 2008; Miller, 1999, 1994). That is, the disorder may be attributable more to social inequalities (including sexism, racism, or homophobia) than to psychological factors.

Given such possibilities, it is most welcome that at least a few multicultural studies of borderline personality disorder have been conducted over the past decade. In one, researchers assessed the prevalence of the personality disorder in racially diverse clinical populations from across the United States (Chavira et al., 2003). The study found that disproportionately more Hispanic American clients qualified for a diagnosis of borderline personality disorder than did white or African American clients. Could it be that Hispanic Americans generally are more likely than other cultural groups to display this disorder, and—if so—why?

Finally, some multicultural theorists have argued that the features of borderline personality disorder may be perfectly acceptable traits and behaviors in certain cultures (APA, 2013). In Puerto Rican culture, for example, men are expected to display very strong emotions like anger, aggression, and sexual attraction (Sherry & Whilde, 2008; Casimir & Morrison, 1993). Could such culture-based characteristics help account for the higher rates of borderline personality disorder found among Hispanic American clients? And could these culturally based characteristics also help explain the fact that Hispanic men and women demonstrate similar rates of this disorder, in contrast to the usual 3-to-1 female-to-male ratio found in other cultural groups (Chavira et al., 2003)? Questions of this kind underline once again the need for more multicultural research into personality disorders.

**Are There Better Ways to Classify Personality Disorders?**

Most of today’s clinicians believe that personality disorders represent important and troubling patterns. Yet, as you read at the beginning of this chapter, DSM-5’s personality disorders are particularly hard to diagnose and easy to misdiagnose, difficulties that indicate serious problems with the validity and reliability of these categories. Consider, in particular, the following problems:

1. Some of the criteria used to diagnose the DSM-5 personality disorders cannot be observed directly. To separate paranoid from schizoid personality disorder, for example, clinicians must ask not only whether people avoid forming close relationships, but also *why*. In other words, the diagnoses often rely heavily on the impressions of the individual clinician.

2. Clinicians differ widely in their judgments about when a normal personality style crosses the line and deserves to be called a disorder. Some even believe that it is wrong ever to think of personality styles as mental disorders, however troublesome they may be.

3. The personality disorders often are very similar to one another. Thus it is common for people with personality problems to meet the diagnostic criteria for several DSM-5 personality disorders (Moore et al., 2012; Loas et al., 2011).

4. People with quite different personalities may qualify for the same DSM-5 personality disorder diagnosis.

In light of these problems, the leading criticism of DSM-5’s approach to personality disorders is, as you read earlier, that the classification system defines such disorders by using *categories*—rather than *dimensions*—of personality. A growing number

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**Personality Disorder Demographics**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19%</td>
<td>Percentage of people with severe personality disorders who are racial or ethnic minority group members</td>
</tr>
<tr>
<td>59%</td>
<td>People with severe personality disorders who are male</td>
</tr>
<tr>
<td>6%</td>
<td>People with severe personality disorders who are unemployed</td>
</tr>
<tr>
<td>23%</td>
<td>People with severe personality disorders who have never married</td>
</tr>
<tr>
<td>10%</td>
<td>Impoverished people with borderline personality disorder</td>
</tr>
<tr>
<td>3%</td>
<td>Wealthy people with borderline personality disorder</td>
</tr>
</tbody>
</table>

(Information from: Sareen et al., 2011; Cloninger & Svrakic, 2005)
of theorists believe that personality disorders differ more in degree than in type of dysfunction. Therefore, they propose that the disorders should be classified by the severity of key personality traits (or dimensions) rather than by the presence or absence of specific traits (Morey et al., 2014). In such an approach, each key trait (for example, disagreeableness, dishonesty, or self-absorption) would be seen as varying along a continuum in which there is no clear boundary between normal and abnormal. People with a personality disorder would be those who display extreme degrees of several of these key traits—degrees not commonly found in the general population (see InfoCentral on the next page).

Which key personality dimensions should clinicians use to help identify people with personality problems? Some theorists believe that they should rely on the dimensions identified in the “Big Five” theory of personality, dimensions that have received enormous attention by personality psychologists over the years.

The “Big Five” Theory of Personality and Personality Disorders

A large body of research conducted with diverse populations consistently suggests that the basic structure of personality may consist of five “supertraits,” or factors—neuroticism, extroversion, openness to experiences, agreeableness, and conscientiousness (Curtis et al., 2014; Zuckerman, 2011). Each of these factors, which are frequently referred to as the “Big Five,” consists of a number of subfactors. Anxiety and hostility, for example, are subfactors of the neuroticism factor, while optimism and friendliness are subfactors of the extroversion factor. Theoretically, everyone’s personality can be summarized by a combination of these supertraits. One person may display high levels of neuroticism and agreeableness, medium extroversion, and low conscientiousness and openness to experiences. In contrast, another person may display high levels of agreeableness and conscientiousness, medium neuroticism and extroversion, and low openness to experiences. And so on.

Many proponents of the Big Five model have argued further that it would be best to describe all people with personality disorders as being high, low, or in between on the five supertraits and to drop the use of personality disorder categories altogether (Glover et al., 2011; Lawton et al., 2011). Thus a particular person who currently qualifies for a diagnosis of avoidant personality disorder might instead be described as displaying a high degree of neuroticism, medium degrees of agreeableness and conscientiousness, and very low degrees of extroversion and openness to new experiences. Similarly, a person currently diagnosed with narcissistic personality disorder might be described in the Big Five approach as displaying very high degrees of neuroticism and extroversion, medium degrees of conscientiousness and openness to new experiences, and a very low degree of agreeableness.

“Personality Disorder—Trait Specified”: Another Dimensional Approach

The “Big Five” approach to personality disorders is currently receiving considerable study and may wind up being used in the next edition of the World Health Organization’s International Classification of Diseases (ICD), the classification system for medical and psychiatric diagnoses used in many countries outside the United States (Aldhous, 2012). In the meantime, as you read earlier, the DSM-5 framers have designed their own alternative dimensional approach for possible use in a future revision of the DSM (Anderson et al., 2014).
LYING

A lie is a false statement that a person makes in order to deliberately deceive another person. Everyone lies. But there is lying, and then there is “lying.” Psychologists often distinguish several kinds of lying: everyday lying, compulsive lying, and sociopathic lying. Compulsive and sociopathic lying are often referred to, collectively, as pathological lying.

Everyday liars: Almost everyone lies on occasion
Compulsive liars: Some people consistently lie out of habit, even when nothing is gained by the lies.
Sociopathic liars: Some people lie incessantly, without any concern for others, in order to get their way.

EXEMPLARY LYING CAN DAMAGE RELATIONSHIPS

“I have lost several important relationships to the other person’s lack of trust in me.”
“I’ve been confronted by more than one person about my lying.”
“T’ve had problems at work due to my lying.”

PATHOLOGICAL LYING AND PERSONALITY DISORDERS

Pathological liars often ...
- Tell totally pointless lies
- Lie to seek attention
- Tell unbelievable stories
- Lie much or most of the time
- Seem unable to stay with the truth
- Lie to make themselves or situation look better
- Paint themselves as victims in their lies

Pathological lying is a common feature in
- Antisocial personality disorder
- Borderline personality disorder
- Histrionic personality disorder
- Narcissistic personality disorder

THE BRAIN AND LYING

- The brain’s prefrontal cortex becomes more active when people lie.
- Researchers have been able to detect when study participants are lying by observing prefrontal cortex activity on fMRIs.
- Beware: Just as polygraphs can be fooled, participants can lower the accuracy of fMRIs.
This approach begins with the notion that people whose traits significantly impair their functioning should receive a diagnosis called personality disorder—trait specified (PDTS) (APA, 2013). When assigning this diagnosis, clinicians would also identify and list the problematic traits and rate the severity of impairment caused by them. According to the proposal, five groups of problematic traits would be eligible for a diagnosis of PDTS: negative affectivity, detachment, antagonism, disinhibition, and psychoticism.

➤ Negative Affectivity People who display negative affectivity experience negative emotions frequently and intensely. In particular, they exhibit one or more of the following traits: emotional lability (unstable emotions), anxiousness, separation insecurity, perseveration (repetition of certain behaviors despite repeated failures), submissiveness, hostility, depressivity, suspiciousness, and strong emotional reactions (overreactions to emotionally arousing situations).

➤ Detachment People who manifest detachment tend to withdraw from other people and social interactions. They may exhibit any of the following traits: restricted emotional reactivity (little reaction to emotionally arousing situations), depressivity, suspiciousness, withdrawal, anhedonia (inability to feel pleasure or take interest in things), and intimacy avoidance. You’ll note that two of the traits in this group—depressivity and suspiciousness—are also found in the negative affectivity group.

➤ Antagonism People who display antagonism behave in ways that put them at odds with other people. They may exhibit any of the following traits (including hostility, which is also found in the negative affectivity group): manipulativeness, deceitfulness, grandiosity, attention seeking, callousness, and hostility.

➤ Disinhibition People who manifest disinhibition behave impulsively, without reflecting on potential future consequences. They may exhibit any of the following traits: irresponsibility, impulsivity, distractibility, risk taking, and imperfection/disorganization.

➤ Psychoticism People who display psychoticism have unusual and bizarre experiences. They may exhibit any of the following traits: unusual beliefs and experiences, eccentricity, and cognitive and perceptual dysregulation (odd thought processes and sensory experiences).

If a person is impaired significantly by any of the five trait groups, or even by just 1 of the 25 traits that make up those groups, he or she would qualify for a diagnosis of personality disorder—trait specified. In such cases, the diagnostician would indicate which traits are impaired, taking special note of impairment in such areas of personality functioning as identity (e.g., self-esteem, self–other boundaries), self-direction (e.g., pursuit of goals, constructive standards), empathy (e.g., appreciation of others’ experiences and needs), and intimacy (e.g., connection with others).

Consider, for example, Matthew, the unhappy 34-year-old accountant described on page 550. As you’ll recall, Matthew meets the criteria for a diagnosis of dependent personality disorder under DSM-5’s current categorical approach, based largely on his lifetime of extreme dependence on his mother, friends, and coworkers. Using the alternative dimensional approach presented in DSM-5, a diagnostician would instead observe that Matthew is significantly impaired by several of the traits that characterize the negative affectivity trait group. He is, for example, greatly impaired by “separation insecurity.” This trait has prevented him from completing college, living on his own, marrying his girlfriend, ever disagreeing with his mother, advancing at work, and broadening his social life. In addition, Matthew seems to be impaired significantly by the traits of “anxiousness,” “submissiveness,” and
“depressivity.” Given this picture, his therapist might assign him a diagnosis of *personality disorder—trait specified, with problematic traits of separation insecurity, anxiousness, submissiveness, and depressivity.*

According to this dimensional approach, when clinicians assign a diagnosis of personality disorder—trait specified, they also must rate the degree of dysfunctioning caused by each of the person's traits, using a five-point scale ranging from “little or no impairment” (Rating = 0) to “extreme impairment” (Rating = 4).

Consider Matthew once again. He would probably warrant a rating of “0” on most of the 25 traits listed in the DSM-5 proposal, a rating of “3” on the trait of anxiousness and depressivity, and a rating of “4” on the traits of separation insecurity and submissiveness. Altogether, he would receive the following cumbersome, but informative, diagnosis:

**Diagnosis: Personality Disorder—Trait Specified**
- Separation insecurity: Rating 4
- Submissiveness: Rating 4
- Anxiousness: Rating 3
- Depressivity: Rating 3
- Other traits: Rating 0

This dimensional approach to personality disorders may indeed prove superior to DSM-5's current categorical approach. Thus far, however, it has caused its own stir in the clinical community. Many clinicians believe that the proposed changes would give too much latitude to diagnosticians—allowing them to apply diagnoses of personality disorder to an enormous range of personality patterns. Still others worry that the requirements of the newly proposed system are too cumbersome or complicated. Only time and research will determine whether the alternative system is indeed a useful approach to the classification and diagnosis of personality disorders.

**PUTTING IT...together**

**Disorders of Personality—Rediscovered, Then Reconsidered**

During the first half of the twentieth century, clinicians believed deeply in the unique, enduring patterns we call personality, and they tried to define important personality traits. They then discovered how readily people can be shaped by the situations in which they find themselves, and a backlash developed. The concept of personality seemed to lose legitimacy, and for a while it became almost an obscene
word in some circles. The clinical category of personality disorders went through a similar rejection. When psychodynamic and humanistic theorists dominated the clinical field, neurotic character disorders—a set of diagnoses similar to today’s personality disorders—were considered useful clinical categories, but their popularity declined as other models grew in influence (Millon et al., 2011, 2000).

During the past two decades, serious interest in personality and personality disorders has rebounded. In case after case, clinicians have concluded that rigid personality traits do seem to pose special problems, and they have developed new objective tests and interview guides to assess these disorders, setting in motion a wave of systematic research (Millon, 2011). So far, only the antisocial and borderline personality disorders have received much study. However, with DSM-5 now considering a new—dimensional—classification approach for possible use in the future, additional research is likely to follow. This may allow clinicians to better answer some pressing questions: How common are the various personality disorders? How useful are personality disorder categories? How effective is a dimensional approach to diagnosing these disorders? And which treatments are most effective?

One of the most important questions is, “Why do people develop troubled patterns of personality?” As you have read, psychological, as opposed to biological and sociocultural, theories have offered the most suggestions so far, but these explanations are not very precise and they do not have strong research support. Given the current enthusiasm for biological explanations, genetic and biological factors are beginning to receive considerable study, a shift in the waters that should soon enable researchers to determine possible interactions between biological and psychological causes. And one would hope that sociocultural factors will be studied as well. As you have seen, sociocultural theorists have only occasionally offered explanations for personality disorders, and multicultural factors have received little research. However, sociocultural factors may well play an important role in these disorders and certainly should be examined more carefully.

DSM-5’s proposal of a dimensional classification approach eventually may lead to major changes in the diagnosis of personality disorders. The future is also likely to bring significant changes to the explanations and treatments for these disorders. Now that clinicians have rediscovered personality disorders, they must determine the most appropriate ways to think about, explain, and treat them.

**SUMMING UP**

- **PERSONALITY DISORDERS AND DSM-5** People with a personality disorder display an enduring, rigid pattern of inner experience and outward behavior. Their personality traits are much more extreme and dysfunctional than those of most other people in their culture, resulting in significant problems for them or those around them. It has been estimated that as many as 9 to 13 percent of adults have such a disorder. DSM-5 uses a categorical approach that lists 10 distinct personality disorders. In addition, the framers of DSM-5 have proposed a dimensional approach to the classification of personality disorders, an approach that they assigned for further study and possible inclusion in a future revision of the DSM. pp. 519–522

- **“ODD” PERSONALITY DISORDERS** Three of the personality disorders in DSM-5 are marked by the kinds of odd or eccentric behavior often seen in schizophrenia. People with paranoid personality disorder display a broad
pattern of distrust and suspiciousness. Those with schizoid personality disorder persistently avoid social relationships, have little or no social interest, and show little emotional expression. People with schizotypal personality disorder display a range of interpersonal problems marked by extreme discomfort in close relationships, very odd forms of thinking and behavior, and behavioral eccentricities. People with these three kinds of disorders usually are resistant to treatment, and treatment gains tend to be modest at best.

“DRAMATIC” PERSONALITY DISORDERS Four of the personality disorders in DSM-5 are marked by highly dramatic, emotional, or erratic symptoms. People with antisocial personality disorder display a pattern of disregard for and violation of the rights of others. No known treatment is notably effective. People with borderline personality disorder display a pattern of instability in interpersonal relationships, self-image, and mood, along with extreme impulsivity. Treatment apparently can be helpful and lead to some improvement. People with histrionic personality disorder (once called hysterical personality disorder) display a pattern of extreme emotionality and attention seeking. Clinical case reports suggest that treatment is helpful on occasion. Finally, people with narcissistic personality disorder display a pattern of grandiosity, need for admiration, and lack of empathy. It is one of the most difficult disorders to treat.

“ANXIOUS” PERSONALITY DISORDER Three of the personality disorders in DSM-5 are marked by anxious and fearful behavior. People with avoidant personality disorder are consistently uncomfortable and inhibited in social situations, overwhelmed by feelings of inadequacy, and extremely sensitive to negative evaluation. People with dependent personality disorder have a persistent need to be taken care of, are submissive and clinging, and fear separation. People with obsessive-compulsive personality disorder are so preoccupied with order, perfection, and control that they lose their flexibility, openness, and efficiency. A variety of treatment strategies have been used for people with these disorders and apparently have been modestly to moderately helpful.

MULTICULTURAL FACTORS Despite the field’s growing focus on personality disorders, relatively little research has been done on gender and other multicultural influences. Nevertheless, many clinicians believe that multicultural factors play key roles in the diagnosis and treatment of personality disorders, and researchers have recently begun to study this possibility.

ARE THERE BETTER WAYS TO CLASSIFY PERSONALITY DISORDERS? The personality disorders listed in DSM-5 are commonly misdiagnosed, an indication of serious problems in the validity and reliability of the categories. Given the significant problems posed by the current categorical approach, a number of today’s theorists believe that personality disorders should instead be described and classified by a dimensional approach. One such approach, the “Big Five” model, may be included in the next edition of the World Health Organization’s International Classification of Diseases. Another dimensional approach, the “personality disorder—trait specified” model, is under study for possible inclusion in a future revision of DSM-5.

Visit LaunchPad www.macmillanhighered.com/launchpad/comerabpsych9e to access the e-book, new interactive case studies, videos, activities, LearningCurve quizzing, as well as study aids including flashcards, FAQs, and research exercises.
Billy, a 7-year-old child, was brought to a mental health clinic by his mother because “he is unhappy and always complaining about feeling sick.” His mother describes Billy as a child who has never been very happy and never wanted to play with other children. From the time he started nursery school, he has complained about stomachaches, headaches, and various other physical problems.

Billy did well in first grade, but in second grade he is now having difficulty completing his work. He takes a lot of time to do his assignments and frequently feels he has to do them over again so that they will be “perfect.” Because of Billy’s frequent somatic complaints, it is hard to get him off to school in the morning. If he is allowed to stay home, he worries that he is falling behind in his schoolwork. When he does go to school, he often is unable to do the work, which makes him feel hopeless about his situation.

His worries have expanded beyond school, and frequently he is clinging and demanding of his parents. He is fearful that if his parents come home late or leave and go somewhere without him that something may happen to them.

Although Billy’s mother acknowledges that he has never been really happy, in the last 6 months, she feels, he has become much more depressed. He frequently lies around the house, saying that he is too tired to do anything. He has no interest or enjoyment in playing. His appetite has diminished. He has trouble falling asleep at night and often wakes up in the middle of the night or early in the morning. Three weeks ago, he talked, for the first time, about wanting to die.

(Ripet et al., 1994)

Ricky Smith was a 7-year-old. During her initial call to the clinic, Mrs. Smith said her son was “out of control.” She said Ricky “was all over the place” and “constantly getting into trouble.”

Ricky said his teacher, Mrs. Candler, was always yelling at him and sending notes home to his mother. Ricky initially said he did not know why the teacher yelled at him but then said it was mostly about not paying attention or following class rules.

Ricky said he had a few friends but often had to keep to himself. This was because Mrs. Candler made him spend much of the school day in a corner of the classroom to complete his work. Unfortunately, little of the work was successfully finished. Ricky said he felt bored, sad, tired, and angry in the classroom.

Ricky said his mother yelled at him a lot. He said he felt happiest when riding his bike because nobody yelled at him and he could “go wherever I want.”

Mrs. Smith said Ricky was almost intolerable in the classroom, crying when asked to do something, stomping his feet, and being disrespectful to the teacher.

Mrs. Smith said her son was generally “out of control” at home. He would not listen to her commands and often ran around the house until he got what he wanted. She and her son often argued about his homework, chores, misbehavior, extended absences from home, and her work schedule.

More detailed questioning revealed that Ricky often fidgeted and lost many of his school materials. He was disorganized and paid little attention to long-term consequences. The child was also difficult to control in public places, such as a supermarket or church.
Billy and Ricky are both displaying psychological disorders. Their disorders are disrupting the boys’ family ties, school performances, and social relationships, but each disorder does so in a particular way and for particular reasons. Billy, who may qualify for a diagnosis of major depressive disorder, struggles constantly with sadness, worry, and perfectionism, along with stomachaches and other physical ailments. Ricky’s main problems, on the other hand, are that he cannot concentrate and is overly active and impulsive—difficulties that characterize attention-deficit/hyperactivity disorder (ADHD).

Abnormal functioning can occur at any time in life. Some patterns of abnormality, however, are more likely to emerge during particular periods—during childhood, for example, or, at the other end of the spectrum, during old age. In this chapter you will read about disorders that commonly have their onset during childhood or early adolescence. In the next chapter you’ll learn about problems that are more prevalent among the elderly.

### Childhood and Adolescence

People often think of childhood as a carefree and happy time—yet it can also be frightening and upsetting (see Figure 17-1). In fact, children of all cultures typically have at least some emotional and behavioral problems as they encounter new people and situations. Surveys reveal that worry is a common experience: close to half of all children in the United States have multiple fears, particularly concerning school, health, and personal safety (Jovanovic et al., 2014; Szabo & Lovibond, 2004).

![figure 17-1](image)

**Are parents aware of their children’s stress?** Not always, according to a large survey of parents and their children aged 8 to 17. For example, although 44 percent of the child respondents report that they worry about school, only 34 percent of the parent respondents believe that their children are worried about school. (Information from: Munsey, 2010).
Disorders Common Among Children and Adolescents

Bed-wetting, nightmares, temper tantrums, and restlessness are other problems that many children contend with. Adolescence can also be a difficult period. Physical and sexual changes, social and academic pressures, school violence, personal doubts, and temptations cause many teenagers to feel nervous, confused, and depressed.

A particular concern among children and adolescents is that of being bullied (see InfoCentral on the next page). Surveys throughout the world have revealed repeatedly that bullying ranks as a major problem in the minds of most young respondents, often a bigger problem than racism, AIDS, and peer pressure to try sex or alcohol (Isolan et al., 2013; Jimerson et al., 2010; Smith, 2011, 2010). More generally, over 25 percent of students report being bullied frequently, and more than 70 percent report having been bullied at least once. Typically, kids who have been bullied react with feelings of humiliation, anxiety, or dislike for school. Just as troubling, the technological advances of today’s world have broadened the ways in which children and adolescents can be bullied, and cyberbullying—bullying and humiliating by e-mail, text messages, and Facebook—is now on the rise (Sampasa-Kanyinga, Roumeliotis, & Xu, 2014).

Beyond these common concerns and psychological difficulties, at least one-fifth of all children and adolescents in North America also experience a diagnosable psychological disorder (Winter & Bienvenu, 2011; Steele et al., 2008). Boys with disorders outnumber girls, even though most of the adult psychological disorders are more common among women.

Some disorders displayed by children—childhood anxiety disorders, childhood depression, and disruptive disorders—have adult counterparts, although they are also distinct in certain ways. Other childhood disorders—elimination disorders, for example—usually disappear or radically change form by adulthood. There are also disorders that begin at birth or in childhood and persist in stable forms into adult life. These include autism spectrum disorder and intellectual disability (previously called mental retardation), the former marked by a lack of responsiveness to the environment, the latter by an extensive disturbance in intellect.

**Childhood Anxiety Disorders**

Anxiety is, to a degree, a normal part of childhood. Since children have had fewer experiences than adults, their world is often new and scary. They may be frightened by common events, such as the beginning of school, or by special upsets, such as moving to a new house or becoming seriously ill. In addition, each generation of children is confronted by new sources of anxiety. Today’s children, for example, are repeatedly warned, both at home and at school, about the dangers of Internet browsing and networking, child abduction, drugs, and terrorism. They are bombarded by violent images on the Web, on television, or in movies. Even fairy tales and nursery rhymes contain frightening images that upset many children.

Children may also be strongly affected by parental problems or inadequacies. If, for example, parents typically react to events with high levels of anxiety or if they overprotect their children, the children may be more likely to respond to the world with anxiety (Becker et al., 2010; Levavi et al., 2010). Similarly, if parents repeatedly reject, disappoint, or avoid their children, the world may seem an unpleasant and anxious place for them. And if parents are divorced, become seriously ill, or must be separated from their children for a long period, childhood anxiety may result. Beyond such environmental problems, there is genetic evidence that some children are prone to an anxious temperament (Rogers et al., 2013).
Bullying is the repeated infliction of force, threats, or coercion in order to intimidate, hurt, or dominate another—less powerful—person. It is particularly common among children and adolescents. Members of certain minority groups, such as LGBT individuals, are more likely to be bullied. Over the past decade, clinicians and educators have learned that bullying is much more common and more harmful than previously thought.

**Types of Bullying**

- **Physical**: hitting, pushing, tripping, name-calling, mean taunting, sexual comments, threatening, spreading rumors, posting embarrassing images, rejection from group
- **Verbal**: 43%
- **Relational/Social**: 29%

**Bullies tend to**:
- Display antisocial behaviors
- Perform poorly in school
- Drop out of school
- Bring weapons to school
- Drink alcohol
- Smoke cigarettes
- Use drugs

**EFFECTS OF BULLYING**
- Depression
- Suicidal thinking and attempts
- Anxiety
- Low self-esteem
- Sleep problems
- Somatic symptoms
- Substance use and abuse
- School problems and/or phobias
- Antisocial behavior

**School Bullying**

Much bullying takes place at school. Around 2/3 of all school bullying occurs in hallways, schoolyards, bathrooms, cafeterias, or buses. A full 1/3 occurs in classrooms, while teachers are present (BSA, 2014). It is estimated that 40% of school bullying goes unreported (BSA, 2014).

**The Nature of School Bullying**

- Slandered by lies and rumors
- Pushed and shoved
- Left out or ignored
- Threatened or injured by a weapon
- Ridiculed or called names
- Threatened by peers and classmates

**Features of School Antibullying Programs**
- Increased supervision of students
- Delivery of consequences for bullying
- School-wide implementation of antibullying policies
- Cooperation among school staff, parents, and professionals across disciplines
- Identification of risk factors for bullying

**CYBERBULLYING**

Cyberbullying takes place through email, text messaging, websites and apps, instant messaging, chat rooms or posted videos or photos (CDC, 2013). Around 40% of all children and teens have been bullied online at least once. About 21% are bullied online regularly. Girls are twice as likely as boys to be cyberbullied on a regular basis. (BSA, 2014; NSPCC, 2013; Sedghi, 2013; Hinduja & Patchin, 2010)

**Why do teens cyberbully?**

- Victim deserves it: 58%
- To get back at victim: 58%
- For entertainment: 28%
- To embarrass victim: 21%
- They want to be mean: 14%
- To show off for friends: 11%

**Social Media and Cyberbullying**

- Victims who report incidents to their social network: 37%
- Victims who initially tell a parent: 17%
- Victims who initially tell a teacher: 1%
- Users who witness cyberbullying on their social media site: 95%
- Witnesses who usually ignore cyberbullying on their social media site: 35%
For some children, such anxieties become long-lasting and debilitating, interfering with their daily lives and their ability to function appropriately. These children may be suffering from an anxiety disorder. Surveys indicate that between 14 and 25 percent of all children and adolescents experience an anxiety disorder (Mian, 2014). Some of the childhood anxiety disorders are similar to their adult counterparts. Childhood specific phobias, for example, usually look and operate just like the phobias of adulthood (Pilecki & McKay, 2011), and a number of untreated childhood phobias grow into adult ones.

More often, however, the anxiety disorders of childhood take on a somewhat different character from that of adult anxiety disorders. Consider generalized anxiety disorder, marked by constant worrying, and social anxiety disorder, marked by fears of embarrassing oneself in front of others (APA, 2013). In order to have such disorders, people must be able to anticipate future negative events (losing one’s job, having a car accident, fainting in front of others), to take on the perspective of other people, and/or to recognize that the thoughts and beliefs of others differ from their own. These cognitive skills are simply beyond the capacity of very young children, and so the symptoms of generalized anxiety disorder and social anxiety disorder do not usually appear in earnest until children are 7 years old or older. In short, odd as it may sound, some patterns of anxiety cannot fully unfold until children are afforded the “benefits” of cognitive, physical, and emotional growth (Davis & Ollendick, 2011; Weems & Varela, 2011).

What, then, do the anxiety disorders of young children look like? Typically they are dominated by behavioral and somatic symptoms rather than cognitive ones—symptoms such as clinging, sleep difficulties, and stomach pains (Morris & Ale, 2011; Schulte & Petermann, 2011). They tend to center on specific, sometimes imaginary, objects and events, such as monsters, ghosts, or thunderstorms, rather than broad concerns about the future or one's place in the world (APA, 2013; Davis & Ollendick, 2011). And they are more often than not triggered by current events and situations (Felix et al., 2011).

Separation Anxiety Disorder

Separation anxiety disorder, one of the most common anxiety disorders among children, follows this profile (APA, 2013). The disorder is common (but not unique) to childhood, begins as early as the preschool years, and at least 4 percent of all children experience it (APA, 2013; Mash & Wolfe, 2012). Sufferers feel extreme anxiety, often panic, whenever they are separated from home or a parent. Jonah’s symptoms began when he was a preschooler and continued into kindergarten.

*Jonah, age 4, began crying as soon as his parents tried to place him in their car for the 30-minute trip to his grandparents’ house. This was going to be his first overnight weekend at the grandparents. He had always been difficult on Tuesday afternoons when his grandmother came to his house to care for him—and, for that matter, whenever Mia, his mother, tried to take him to a play date—but this was an entirely new level of upset. Unfortunately, it was not to be an isolated event.

Jonah screamed that he would not get in the car. He pleaded to stay home, saying, “I don’t like being with Granny. I hate Tuesdays!” When Mia insisted he stop saying such mean things, Jonah further yelled out, “I only want to be here with you! If you make me go, I’ll never see you again!”*
Jonah's father Brandon told him he was being silly, but Jonah cried out, “What if you like it better without me? What if Granny decides to keep me and won’t let you have me back? Or what if you die!” Exasperated, Brandon picked Jonah up and carried him to the car. Jonah cried all the way to his grandparent's house. At the door, Jonah hugged his mother as though he would never let go. After Mia finally broke off the hug, Jonah tried to make a break for it and ran back toward the car.

Intercepted by Brandon, Jonah finally went inside the house and sat down. He was no longer crying out, but he continued to whimper and to beg for a reprieve. Eventually, Mia and Brandon left. Two hours later, they received a phone call from Mia’s flustered mother. An inconsolable Jonah had been crying nonstop, at the top of his lungs, since his parents had left. Reluctantly, Mia agreed to pick Jonah up, cancelling her and Brandon's weekend getaway. There was no way that they would have had much fun anyway, knowing that Jonah was so upset.

That night, Jonah refused to sleep in his own room, insisting on sleeping between his parents. This was something they had tolerated occasionally in the past, but, beginning that night, it became a regular sleeping arrangement. During the next several months, all attempts to reschedule the weekend trip to his grandparents had to be cancelled, as Jonah became hysterical every time his parents tried to get him to leave the house. He also became more agitated during his grandmother's Tuesday visits, constantly yelling, “I want Mommy!”

Five months later, Jonah began kindergarten. That first day of school lasted all of two hours. A school administrator called, asking Mia to come get Jonah. Mia was hardly surprised. Jonah had cried, screamed, and even kicked the whole ride to school, and his distress only escalated as she drove off. The school administrator was sympathetic to Jonah's anxiety and to Mia's plight, but, as he explained, Jonah's nonstop crying was affecting all the other children and making it impossible for the teacher to get them comfortable and involved in their class activities. “Perhaps tomorrow Jonah will have a better day,” he said. But the next day, Jonah's reaction was the same. And the next day. And the next day.

Children like Jonah have enormous trouble traveling away from their family, and they often refuse to visit friends' houses, go on errands, or attend camp or school (see Table 17-1). Many cannot even stay alone in a room and cling to their parent around the house. Some also have temper tantrums, cry, or plead to keep their parents from leaving them. The children may fear that they will get lost when separated from their parents or that the parents will meet with an accident or illness. As long as the children are near their parents and not threatened by separation, they may function quite normally. At the first hint of separation, however, the dramatic pattern of symptoms may be set in motion.

Separation anxiety disorder may further take the form of a school phobia, or school refusal, a common problem in which children fear going to school and often stay home for a long period (APA, 2013). Many cases of school phobia, however, have causes other than separation fears, such as social or academic fears, depression, and fears of specific objects or persons at school.

Treatments for Childhood Anxiety Disorders

Despite the high prevalence of childhood and adolescent anxiety disorders, around two-thirds of anxious children go untreated (Winter & Bienvenu, 2011; Chavira et al., 2004). Among the children who do receive treatment, psychodynamic, cognitive-behavioral, family, and group therapies, separately or in combination, have been used most often. Each approach has had some degree of success; however, cognitive-behavioral therapy has fared the best across a number of studies (Mohatt, Bennett, & Walkup, 2014; Edmunds, O’Neil, & Kendall, 2011). Such treatments parallel the

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**Dx Checklist**

**Separation Anxiety Disorder**

1. Individual displays fear or anxiety concerning separation from attachment figures, anxiety that is unreasonable or excessive for his or her age group.

2. Individual’s excessive anxiety features three or more of the following symptoms:
   - Repeated separation-related upset
   - Repeated loss-related concern
   - Repeated fear of experiencing separation-caused events
   - Repeated resistance to leaving home
   - Repeated resistance to being alone
   - Repeated resistance to sleep-aways
   - Repeated separation-focused nightmares
   - Repeated separation-triggered physical symptoms.

3. Individual’s symptoms last 4 or more weeks for children and at least 6 months for adults.

4. Significant distress or impairment.

(Information from: APA, 2013)
adult anxiety approaches that you read about in Chapter 5, but they are tailored to the child’s cognitive abilities, unique life situation, and limited control over his or her life. In addition, clinicians may offer psychoeducation, provide parent training, and arrange school interventions to treat anxious children (Lewin, 2011).

Clinicians have also used drug therapy in a number of cases of childhood anxiety disorders, often in combination with psychotherapy (Mohat et al., 2014; Bloch & McGuire, 2011). Not only do they prescribe antianxiety drugs, but antidepressant and antipsychotic drugs as well (Comer et al., 2011, 2010). Drug therapy for childhood anxiety appears to be helpful, but it has begun only recently to receive much research attention.

Because children typically have difficulty recognizing and understanding their feelings and motives, many therapists, particularly psychodynamic therapists, use play therapy as part of treatment (Landreth, 2012). In this approach, the children play with toys, draw, and make up stories; in doing so they reveal the conflicts in their lives and their related feelings. The therapists then introduce more play and fantasy to help the children work through their conflicts and change their emotions and behavior. In addition, because children are often excellent hypnotic subjects, some therapists use hypnotherapy to help them overcome intense fears.

### Depressive and Bipolar Disorders

Like Billy, the boy you read about at the beginning of this chapter, around 2 percent of children and 8 percent of adolescents currently experience a major depressive disorder (Mash & Wolfe, 2012). As many as 20 percent of adolescents experience at least one depressive episode during their teen years. In addition, many clinicians believe that children may experience bipolar disorder.

### Major Depressive Disorder

As with anxiety disorders, very young children lack some of the cognitive skills that help produce clinical depression, thus accounting for the low rate of depression among the very young (Hankin et al., 2008). For example, in order to experience the sense of hopelessness typically found in depressed adults, children must be able to hold expectations about the future, a skill rarely in full bloom before the age of 7.
Nevertheless, if life situations or biological predispositions are significant enough, even very young children sometimes have severe downward turns of mood (Tang et al., 2014; Swearer et al., 2011). Depression in the young may be triggered by negative life events (particularly losses), major changes, rejection, or ongoing abuse. Childhood depression is commonly characterized by such symptoms as headaches, stomach pain, irritability, and a disinterest in toys and games (Schulte & Petermann, 2011).

Clinical depression is much more common among teenagers than among young children. Adolescence is, under the best of circumstances, a difficult and confusing time, marked by angst, hormonal and bodily changes, mood changes, complex relationships, and new explorations (see MindTech on the next page). For some teens, these “normal” upsets of adolescence cross the line into clinical depression. As you read in Chapter 9, suicidal thoughts and attempts are particularly common among adolescents—one in eight teens persistently thinks about suicide each year—and depression is the leading cause of such thoughts and attempts (Nock et al., 2013; Spirito & Esposito-Smythers, 2008).

Interestingly, while there is no difference between the rates of depression in boys and girls before the age of 13, girls are twice as likely as boys to be depressed by the age of 16 (Naninck et al., 2011; Merikangas et al., 2010; Hankin et al., 2008). Why this gender shift? Several factors have been suggested, including hormonal changes, the fact that females increasingly experience more stressors than males, and the tendency of girls to become more emotionally invested than boys in social and intimate relationships as they mature. One explanation also focuses on teenage girls’ growing dissatisfaction with their bodies. Whereas boys tend to like the increase in muscle mass and other body changes that accompany puberty, girls often detest the increases in body fat and weight gain that they experience during puberty and beyond. Raised in a society that values and demands extreme thinness as the aesthetic female ideal, many adolescent girls feel imprisoned by their own bodies, have low self-esteem, and become depressed (Stice et al., 2000). Many also develop eating disorders, as you saw in Chapter 11.

For years, it was generally believed that childhood and teenage depression would respond well to the same treatments that have been of help to depressed adults—cognitive-behavioral therapy, interpersonal approaches, and antidepressant drugs—and, in fact, many studies have indicated the effectiveness of such approaches (Straub et al., 2014; Vela et al., 2011). Some recent studies and events over the past several years, however, have raised questions about these approaches for teenagers.

In one development, the National Institute of Mental Health recently sponsored a massive six-year study called the Treatments for Adolescents with Depression Study (TADS), which compared the effectiveness of cognitive-behavioral therapy alone, antidepressant therapy alone, cognitive-behavioral and antidepressant therapy combined, and placebo therapy for teenage depression (TADS, 2010, 2007, 2004). Three major surprises emerged from this highly regarded study. First, neither antidepressants alone nor cognitive-behavioral therapy alone was as effective for teenage depression as was a combination of antidepressants and cognitive-behavioral therapy. Second, antidepressants alone tended to be more helpful to depressed teens than cognitive-behavioral therapy alone. And third, cognitive-behavioral therapy alone was barely more helpful than placebo therapy. Many researchers believe that certain peculiarities in the participant population of the TADS study may have been responsible for the poor showing of cognitive-behavioral therapy. However, other clinical theorists believe that the TADS study is a definitive research undertaking and that many depressed teens may in fact respond less well to cognitive-behavioral therapy than adults do.
MindTech

Parent Anxiety on the Rise

Parents have always worried about their children—about their health, their safety, their grades, and their future. But in today’s digital world, parent anxiety is rising to new heights as these traditional concerns are being joined by a major new focus—worry about their children’s online experiences and behaviors (Fondas, 2014).

What exactly do parents worry about when their children go online, and who is worrying the most? Researchers Danah Boyd and Eszter Hargittai (2013) surveyed more than 1,000 parents across the United States and found that safety is at the heart of parents’ anxiety. Almost two-thirds of the surveyed parents, whose children ranged in age from 10 to 14 years, were “extremely concerned” about their children being hurt by a stranger whom they might meet online. Additionally, many parents reported having extreme concern about their children being exposed to online pornography (57 percent of parents), being exposed to online violence (35 percent), and being the victim or perpetrator of online bullying (32 percent and 17 percent, respectively). Almost all of the surveyed parents expressed at least some degree of concern about each of these areas.

As you might expect, these areas of anxiety were not distributed evenly among parents. African American, Hispanic American, and Asian American parents were much more likely than white American parents to have these concerns. Urban parents were more fearful than suburban and rural parents. Lower-income parents had more anxiety about online bullying than did wealthier parents.

Mothers expressed more fear than fathers about their children being bullied online. Parents of daughters were more concerned than parents of sons about their children meeting harmful strangers and being exposed to violence online. And politically conservative and moderate parents expressed significantly more anxiety than liberal parents about their children viewing pornography or meeting strangers online.

In the early days of the Internet, parents would address concerns of this kind by supervising and restricting their children’s online time and access. But those “good old days” are now gone and such solutions have become less and less available, given the increasing number of U.S. teens who own a smartphone (now, almost half of them) and the easy access teens have to computers and tablets in so many locations outside the home (Fondas, 2014). In turn, parental anxiety continues to rise.

A second development in recent years has been the discovery that antidepressant drugs may be very dangerous for some depressed children and teenagers. Throughout the 1990s, most psychiatrists believed that second-generation antidepressants were safe and effective for children and adolescents, and they prescribed them readily (Cooper et al., 2014). However, as you read in Chapter 9, the U.S. Food and Drug Administration (FDA) concluded in 2004, based on a number of clinical reports, that the drugs may produce a real, though small, increase in the risk of

In Their Words

“The boy will come to nothing.”

Jakob Freud, 1864 (referring to his 8-year-old son Sigmund, after he had urinated in his parents’ bedroom)
suicidal behavior for certain children and adolescents, especially during the first few months of treatment. Thus, the FDA ordered that all antidepressant containers carry “black box” warnings stating that the drugs “increase the risk of suicidal thinking and behavior in children.”

Arguments about the wisdom of this FDA order have since ensued. Although most clinicians agree that the drugs may increase the risk of suicidal thoughts and attempts in as many as 2 to 4 percent of young patients, some have noted that the overall risk of suicide may actually be reduced for the vast majority of children who take the drugs (Isacsson & Rich, 2014; Vela et al., 2011). They point out, for example, that suicides among children and teenagers decreased by 30 percent in the decade leading up to 2004, as the number of antidepressant prescriptions provided to children and teenagers were soaring.

While the findings of the TADS study and questions about antidepressant drug safety continue to be sorted out, these two developments serve to highlight once again the importance of research, particularly in the treatment realm. We are reminded that treatments that work for individuals of a certain age, gender, race, or ethnic background may be ineffective or even dangerous for other groups of people.

Bipolar Disorder and Disruptive Mood Dysregulation Disorder

For decades, bipolar disorder was thought to be exclusively an adult disorder, and that its earliest age of onset is the late teens (APA, 2013). However, since the mid-1990s, clinical theorists have done an about-face, and a rapidly growing number of them now believe that many children display bipolar disorder. A review of national diagnostic trends from 1994 through 2003 found that the number of children—often very young children—and adolescents diagnosed and treated for bipolar disorder in United States increased 40-fold, from 25 such diagnoses per 100,000 individuals in 1994 to 1,000 per 100,000 individuals in 2003 (Moreno et al., 2007). Correspondingly, as you can see in Figure 17-2, the number of private office visits for children with bipolar disorders increased from 20,000 in 1994 to 800,000 in 2003. Furthermore most clinical observers agree that the number of children and adolescents diagnosed with bipolar disorder has continued to rise sharply since 2003 (Mash & Wolfe, 2012).

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Office Visits by Children with Bipolar Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>20,000</td>
</tr>
<tr>
<td>1997</td>
<td>700,000</td>
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<tr>
<td>1999</td>
<td>800,000</td>
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<tr>
<td>2003</td>
<td>800,000</td>
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**Bipolar Disorder and Disruptive Mood Dysregulation Disorder**

Separation and depression

This 3-year-old boy hugs his father as the soldier departs for deployment to Iraq. Given research evidence that extended family separations often produce depression in children, clinical theorists have been particularly worried about the thousands of children from military families who have been left behind during the wars in Afghanistan and Iraq.
Most theorists believe that these numbers reflect not an increase in the prevalence of bipolar disorders among children but rather a new diagnostic trend. The question is whether this trend is accurate. In a national survey of adults with bipolar disorders, 33 percent of the respondents recalled that their symptoms actually began before they reached 15 years of age, and another 27 percent said their symptoms first appeared between the ages of 15 and 19 (Hirschfeld et al., 2003). Such responses indicate that bipolar disorders among children and teenagers have indeed been around for years but were overlooked by diagnosticians and therapists.

Some clinical theorists, however, distrust the accuracy of such retrospective reports and believe that the diagnosis of bipolar disorder is currently being overapplied to children and adolescents (Paris, 2014; Mash & Wolfe, 2012). They suggest that the label has become a clinical catchall that is being applied to almost every explosive, aggressive child. In fact, symptoms of rage and aggression, along with depression, dominate the clinical picture of most children who have received a bipolar diagnosis over the past two decades (Roy et al., 2013; Diler et al., 2010). The children may not even manifest the symptoms of mania or the mood swings that characterize adult bipolar disorder. Moreover, two-thirds of the children and adolescents who receive a bipolar diagnosis are boys, while adult men and women have bipolar disorder in equal numbers.

The DSM-5 task force concluded that the childhood bipolar label has in fact been overapplied over the past two decades. To help rectify this, DSM-5 now includes a new category, disruptive mood dysregulation disorder, which is used to describe children with patterns of severe rage (see Table 17-2). It is expected that more such children will receive this diagnosis in the coming years and that the number of childhood bipolar disorder diagnoses will decrease correspondingly.

This issue is particularly important because the rise in diagnoses of bipolar disorder has been accompanied by an increase in the number of children who are prescribed adult medications (Toteja et al., 2014; Chang et al., 2010; Grier et al., 2010). Around one-half of children in treatment for bipolar disorder receive an antipsychotic drug; one-third receive an antibipolar, or mood-stabilizing, drug; and many others receive antidepressant or stimulant drugs. Yet relatively few of these drugs have been tested on and approved specifically for use with children.

Dx Checklist
Disruptive Mood Dysregulation Disorder
1. For at least a year, individual repeatedly displays severe outbursts of temper that are extremely out of proportion to triggering situations and different from ones displayed by most other people of his or her age.
2. The outbursts occur at least three times per week and are present in at least two settings (home, school, with peers).
3. Individual repeatedly displays irritable or angry mood between the outbursts.
4. Individual receives initial diagnosis between 6 and 18 years of age.

(Information from: APA, 2013)
Oppositional Defiant Disorder and Conduct Disorder

Most children break rules or misbehave on occasion. If they consistently display extreme hostility and defiance, however, they may qualify for a diagnosis of oppositional defiant disorder or conduct disorder. Those with oppositional defiant disorder are argumentative and defiant, angry, and irritable, and in some cases, vindictive (APA, 2013). They may argue repeatedly with adults, ignore adult rules and requests, deliberately annoy other people, and feel much anger and resentment. As many as 10 percent of children qualify for a diagnosis of oppositional defiant disorder (Mash & Wolfe, 2012; Merikangas et al., 2010). The disorder is more common in boys than in girls before puberty but equal in both sexes after puberty.

Children with conduct disorder, a more severe problem, repeatedly violate the basic rights of others (APA, 2013). They are often aggressive and may be physically cruel to people or animals, deliberately destroy other people’s property, steal or lie, skip school, or run away from home (see Table 17-3). Many threaten or harm their victims, committing such crimes as firesetting, shoplifting, forgery, breaking into buildings or cars, mugging, and armed robbery. As they get older, their acts of physical violence may include rape or, in rare cases, homicide. The symptoms of conduct disorder are apparent in this summary of a clinical interview with a 15-year-old boy named Derek:

Questioning revealed that Derek was getting into . . . serious trouble of late, having been arrested for shoplifting 4 weeks before. Derek was caught with one other youth when he and a dozen friends swarmed a convenience store and took everything they could before leaving in cars. This event followed similar others at [an electronics] store and a . . . clothing store. Derek blamed his friends for his arrest because they apparently left him behind as he straggled out of the store. He was charged only with shoplifting, however, after police found him holding just three candy bars and a bag of potato chips. Derek expressed no remorse for the theft or any care for the store clerk who was injured when one of the teens pushed her into a glass case. When informed of the clerk’s injury, for example, Derek replied, “I didn’t do it, so what do I care?”

The psychologist questioned Derek further about other legal violations and discovered a rather extended history of trouble. Derek was arrested for vandalism 10 months earlier for breaking windows and damaging cars on school property. He received probation for 6 months because this was his first offense. Derek also boasted of other exploits for which he was not caught, including several shoplifting episodes, . . . joyriding, and missing school. Derek missed 23 days (50 percent) of school since the beginning of the academic year. In addition, he described break-in attempts of his neighbors’ apartments. . . . Only rarely during the interview did Derek stray from his bravado.

(Kearney, 2013, pp. 87–88)

Conduct disorder usually begins between 7 and 15 years of age (APA, 2013). As many as 10 percent of children, three-quarters of them boys, qualify for this diagnosis (Mash & Wolfe, 2012; Hibbs & Jensen, 2005). Children with a relatively mild conduct disorder often improve over time, but a severe case may continue into adulthood and develop into antisocial personality disorder or other psychological problems (Mash & Wolfe, 2012). Usually, the earlier the onset of the conduct disorder, the poorer the eventual outcome. Research indicates that more than 80 percent of those who develop conduct disorder first display a pattern of oppositional
defiant disorder (APA, 2013; Lahey, 2008). More than one-third of children with conduct disorder also display attention-deficit/hyperactivity disorder (ADHD), a disorder that you will read about shortly (Jiron, 2010). And a number of children with the disorder also experience depression and anxiety.

Some clinical theorists believe that there are actually several kinds of conduct disorder, including (1) the overt-destructive pattern, in which individuals display openly aggressive and confrontational behaviors; (2) the overt-nondestructive pattern, dominated by openly offensive but non-confrontational behaviors such as lying; (3) the covert-destructive pattern, characterized by secretive destructive behaviors such as violating other people’s property, breaking and entering, and setting fires; and (4) the covert-nondestructive pattern, in which individuals secretly commit non-aggressive behaviors, such as being truant from school (McMahon et al., 2010; McMahon & Frick, 2007, 2005). It may be that the different patterns have different causes. In a similar vein, DSM-5 instructs diagnosticians to distinguish those individuals whose conduct disorder is marked by particularly callous and unemotional behaviors, as they may be qualitatively different from others with the disorder (APA, 2013).

Other researchers distinguish yet another pattern of aggression found in certain cases of conduct disorder, relational aggression, in which the individual is socially isolated and primarily engages in social misdeeds such as slandering others, spreading rumors, and manipulating friendships (Ostrov et al., 2014; Keenan et al., 2010) (see MediaSpeak on the next page). Relational aggression is more common among girls than boys.

Many children with conduct disorder are suspended from school, placed in foster homes, or incarcerated (Weyandt et al., 2011). When children between the ages of 8 and 18 break the law, the legal system often labels them juvenile delinquents (Wiklund et al., 2014; Jiron, 2010). More than half of the juveniles who are arrested each year are recidivists, meaning they have a history of having been arrested. Boys are much more involved in juvenile crime than girls, although the gap between them is narrowing. Girls are most likely to be arrested for drug use, sexual offenses, and running away, boys for drug use and crimes against
When Seth Walsh was in the sixth grade, he turned to his mother one day and told her he had something to say. "I was folding clothes, and he said, 'Mom, I'm gay,'" said Wendy Walsh, a hairstylist and single mother of four. "I said, 'O.K., sweetheart, I love you no matter what.'"

But last month, Seth went into the backyard of his home in the desert town of Tehachapi, Calif., and hanged himself, apparently unable to bear a relentless barrage of taunting, bullying and other abuse at the hands of his peers. After a little more than a week on life support, he died last Tuesday. He was 13.

The case of Tyler Clementi, the Rutgers University freshman who jumped off the George Washington Bridge after a sexual encounter with another man was broadcast online, has shocked many. But his death is just one of several suicides in recent weeks by young gay teenagers who had been harassed by classmates, both in person and online.

The list includes Billy Lucas, a 15-year-old from Greensburg, Ind., who hanged himself on Sept. 9 after what classmates reportedly called a constant stream of invective against him at school.

Less than two weeks later, Asher Brown, a 13-year-old from the Houston suburbs, shot himself after coming out. He, too, had reported being taunted at his middle school, according to The Houston Chronicle. His family has blamed school officials as failing to take action after they complained, something the school district has denied.

The deaths have set off an impassioned—and sometimes angry—response from gay activists and caught the attention of federal officials, including Secretary of Education Arne Duncan, who on Friday called the suicides "unnecessary tragedies" brought on by "the trauma of being bullied."

"This is a moment where every one of us—parents, teachers, students, elected officials and all people of conscience—needs to stand up and speak out against intolerance in all its forms," Mr. Duncan said. . . .

For her part, Ms. Walsh said she . . . did not want to cast blame, though she hoped his death would teach people "not to discriminate, not be prejudiced."

"I truly hope," she said, "that people understand that."

property. After steadily rising during the 1990s, the number of arrests of teenagers for serious crimes has fallen by one-third during the past decade (U.S. Department of Justice, 2014, 2010).

What Are the Causes of Conduct Disorder?
Many cases of conduct disorder, particularly those marked by destructive behaviors, have been linked to genetic and biological factors (Kerekes et al., 2014; Wallace et al., 2014). In addition, a number of cases have been tied to drug abuse, poverty, traumatic events, and exposure to violent peers or community violence (Wymbs et al., 2014; Weyandt et al., 2011). Most often, however, conduct disorder has been tied to troubled parent–child relationships, inadequate parenting, family conflict, marital conflict, and family hostility (Henggeler & Sheidow, 2012; Mash & Wolfé, 2012). Children whose parents reject, leave, coerce, or abuse them or fail to provide appropriate and consistent supervision are apparently more likely to develop conduct problems. Children also seem more prone to this disorder when their parents themselves are antisocial, display excessive anger, or have substance use, mood, or schizophrenic disorders (Advokat et al., 2014).

How Do Clinicians Treat Conduct Disorder?
Because aggressive behaviors become more locked in with age, treatments for conduct disorder are generally most effective with children younger than 13 (APA, 2013; Webster-Stratton & Reid, 2010). A number of interventions, from sociocultural to child-focused, have been developed in recent years to treat children with the disorder. As you will see, several of these have had modest (and at times moderate) success, but clearly no one of them alone is the answer for this difficult problem. Today’s clinicians are increasingly combining several approaches into a wide-ranging treatment program.

Sociocultural Treatments  Given the importance of family factors in conduct disorder, therapists often use family interventions. One such approach, used with preschoolers, is called parent-child interaction therapy (Hembree-Kigin & McNeil, 2013; Zisser & Eyberg, 2010; Querido & Eyberg, 2005). Here therapists teach parents to work with their child positively, to set appropriate limits, to act consistently, to be fair in their discipline decisions, and to establish more appropriate expectations regarding the child. The therapists also try to teach the child better social skills. Ideally, these efforts strengthen the relationship between the parents and child, improve the parents’ attitudes, lead to more parent control, and help bring about improvements in the child’s behavior. A related family intervention for very young children, video modeling, works toward the same goals with the help of video tools (Webster-Stratton & Reid, 2010; Webster-Stratton, 2005).

When children reach school age, therapists often use a family intervention called parent management training. In this approach, (1) parents are again taught more effective ways to deal with their children, and (2) parents and children meet together in behavior-oriented family therapy (Kazdin, 2012, 2010, 2002; Forgatch & Patterson, 2010). Typically, the family and therapist target particular behaviors for change; then, with the help of written manuals, therapy rehearsals and practice, and homework,
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The parents are taught how to better identify problem behaviors, stop rewarding unwanted behaviors, and reward proper behaviors in a consistent manner. Like the family interventions for preschool-age children, parent management training has often achieved a measure of success (Kazdin, 2012; Forgatch & Patterson, 2010; McMahon & Kotler, 2008).

Other sociocultural approaches, such as residential treatment in the community and programs at school, have also helped some children improve. In one such approach, treatment foster care, delinquent boys and girls with conduct disorder are assigned to a foster home in the community by the juvenile justice system (Henggeler & Sheidow, 2012). While there, the children, foster parents, and birth parents all receive training and treatment interventions, including family therapy with both sets of parents, individual treatment for the child, and meetings with the school and with parole and probation officers. In addition, the children and their parents continue to receive treatment and support after they leave foster care. This program is apparently most beneficial when all the intervention components are applied simultaneously.

In contrast to these sociocultural interventions, institutionalization in so-called juvenile training centers has not met with much success (Stahlberg et al., 2010; Heilbrun et al., 2005). In fact, such institutions frequently serve to strengthen delinquent behavior rather than resocialize young offenders.

**Child-Focused Treatments**

Treatments that focus primarily on the child with conduct disorder, particularly cognitive-behavioral interventions, have had some success in recent years (Kazdin, 2012, 2010, 2007). In an approach called problem-solving skills training, therapists combine modeling, practice, role-playing, and systematic rewards to help teach children constructive thinking and positive social behaviors. During therapy sessions, the therapists may play games and solve tasks with the children, and later help the children apply the lessons and skills derived from the games and tasks to real-life situations.

In another child-focused approach, the Coping Power Program, children with conduct problems participate in group sessions that teach them to manage their anger more effectively, view situations in perspective, solve problems, become aware of their emotions, build social skills, set goals, and handle peer pressure. Studies indicate that child-focused approaches such as these do indeed help reduce aggressive behaviors and prevent substance use in adolescence (Lochman et al., 2011, 2010).

Recently, drug therapy has also been used for children with conduct disorder. Studies suggest that stimulant drugs may be helpful in reducing their aggressive behaviors at home and at school (Levy & Bloch, 2012; Connor et al., 2002).

**Prevention**

It may be that the best hope for dealing with the problem of conduct disorder lies in prevention programs that begin in the earliest stages of childhood (Hektnar et al., 2014; Boxer & Frick, 2008). These programs try to change unfavorable social conditions before a conduct disorder is able to develop. The programs may offer training opportunities for young people, recreational facilities, and health care, and may try to ease the stresses of poverty and improve parents’ child-rearing skills. All such approaches work best when they educate and involve the family.
Children with elimination disorders repeatedly urinate or pass feces in their clothes, in bed, or on the floor. They already have reached an age at which they are expected to control these bodily functions, and their symptoms are not caused by physical illness.

**Enuresis**

Enuresis is repeated involuntary (or in some cases intentional) bed-wetting or wetting of one’s clothes. It typically occurs at night during sleep but may also occur during the day. Children must be at least 5 years of age to receive this diagnosis (APA, 2013). The problem may be triggered by stressful events, such as a hospitalization, entrance into school, or family problems. In some cases it is the result of physical or psychological abuse (see *PsychWatch* on page 581).

At the time of her initial assessment, Amber was in second grade. She was referred to the clinic by her father, Mr. Dillon, who was quite upset about his daughter’s problems. During the telephone screening interview, he reported that Amber was wetting her bed more at night and often needed to urinate during school. She was also experiencing minor academic problems. . . .

During [her] assessment session . . . Amber said that she was getting into a lot of trouble at home and that her parents were mad at her. When asked why they were mad, Amber said she wasn’t doing well in school and that she felt “nervous.” . . . She said her grades had been getting worse over the course of the school year and that she was having trouble concentrating on her assigned work. She had apparently been a very good student the year before, especially in reading, but was now struggling with different subjects. . . .

[Amber acknowledged that] she wet her bed at night about once or twice a week. In addition, she often had to use the bathroom at school, going about three or four times a day. This was apparently a source of annoyance for her team teacher. . . . On one occasion, Amber said that she didn’t make it to the bathroom in time and slightly wet her pants. Fortunately, this was not noticeable, but Amber was quite embarrassed about the incident. In fact, she now placed a wad of toilet tissue in her underwear to diminish the results of any possible mishaps in the future. . . .

[In a separate assessment interview, the psychologist asked Amber’s parents] if any significant changes were going on at home. The question seemed to strike a nerve, as both parents paused and looked at each other nervously before answering. Finally, Mr. Dillon said that he and his wife had been having marital problems within the past year and that they were fighting more than usual. In fact, the possibility of divorce had been raised and both were now considering separation.

(Keeney, 1998, pp. 60–62)

The prevalence of enuresis decreases with age. As many as 33 percent of 5-year-old children have some bed-wetting and as many as 10 percent meet the criteria for enuresis; in contrast, 3 to 5 percent of 10-year-olds and 1 percent of 15-year-olds have enuresis (APA, 2013; Mash & Wolfe, 2012). Those with enuresis typically have a close relative (parent, sibling) who has had or will have the same disorder.

Research has not favored one explanation for enuresis over the others (Kim et al., 2014; Christophersen & Friman, 2010; Friman, 2008). Psychodynamic theorists explain it as a symptom of broader anxiety and underlying conflicts. Family

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**enuresis** A childhood disorder marked by repeated bed-wetting or wetting of one’s clothes.
Theorists point to disturbed family interactions. Behaviorists view the problem as the result of improper, unrealistic, or coercive toilet training. And biological theorists suspect that children with this disorder often have a small bladder capacity or weak bladder muscles.

Most cases of enuresis correct themselves even without treatment. However, therapy, particularly behavioral therapy, can speed up the process (Axelrod et al., 2014; Christophersen & Friman, 2010; Houts, 2010). In a widely used classical conditioning approach, the bell-and-battery technique, a bell and a battery are wired to a pad consisting of two metallic foil sheets, and the entire apparatus is placed under the child at bedtime (Mowrer & Mowrer, 1938). A single drop of urine sets off the bell, awakening the child as soon as he or she starts to wet. Thus the bell (unconditioned stimulus) paired with the sensation of a full bladder (conditioned stimulus) produces the response of waking. Eventually, a full bladder alone awakens the child.

Another effective behavioral treatment method is dry-bed training, in which children receive training in cleanliness and retention control, are awakened periodically during the night, practice going to the bathroom, and are appropriately rewarded. Like the bell-and-battery technique, this behavioral approach is often effective.

Encopresis

Encopresis, repeatedly defecating into one’s clothing, is less common than enuresis, and it is also less well researched (APA, 2013; Mash & Wolfe, 2012). This problem seldom occurs at night during sleep. It is usually involuntary, starts at the age of 4 or older, and affects about 1.5 to 3 percent of all children (see Table 17-4). The disorder is much more common in boys than in girls.

Encopresis causes intense social problems, shame, and embarrassment (Mosca & Schatz, 2013; Christophersen & Friman, 2010; Cox et al., 2002). Children who suffer from it usually try to hide their condition and to avoid situations, such as camp or school, in which they might embarrass themselves. It may stem from stress, biological factors such as constipation, improper toilet training, or a combination of these factors. In fact, most children with encopresis have a history of repeated constipation, a history that may contribute to improper intestinal functioning. Because physical problems are so often linked to this disorder, a medical examination is typically conducted first.

**Comparison of Childhood Disorders**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Usual Age of Identification</th>
<th>Prevalence Among All Children</th>
<th>Gender with Greater Prevalence</th>
<th>Elevated Family History</th>
<th>Recovery by Adulthood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation anxiety disorder</td>
<td>Before 12 years</td>
<td>4%–10%</td>
<td>Females</td>
<td>Yes</td>
<td>Usually</td>
</tr>
<tr>
<td>Conduct disorder</td>
<td>7–15 years</td>
<td>1%–10%</td>
<td>Males</td>
<td>Yes</td>
<td>Often</td>
</tr>
<tr>
<td>ADHD</td>
<td>Before 12 years</td>
<td>5%</td>
<td>Males</td>
<td>Yes</td>
<td>Often</td>
</tr>
<tr>
<td>Enuresis</td>
<td>5–8 years</td>
<td>5%</td>
<td>Males</td>
<td>Yes</td>
<td>Usually</td>
</tr>
<tr>
<td>Encopresis</td>
<td>After 4 years</td>
<td>1.5%–3%</td>
<td>Males</td>
<td>Unclear</td>
<td>Usually</td>
</tr>
<tr>
<td>Specific learning disorders</td>
<td>6–9 years</td>
<td>5%</td>
<td>Males</td>
<td>Yes</td>
<td>Often</td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>0–3 years</td>
<td>1.6%</td>
<td>Males</td>
<td>Yes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Intellectual disability</td>
<td>Before 10 years</td>
<td>1%–3%</td>
<td>Males</td>
<td>Unclear</td>
<td>Sometimes</td>
</tr>
</tbody>
</table>
problem that affects all too many children and has an enormous impact on their psychological development is child abuse, the nonaccidental use of excessive physical or psychological force by an adult on a child, often with the intention of hurting or destroying the child. At least 5 percent of children in the United States are physically abused each year (Mash & Wolfe, 2012). Surveys suggest that 1 of every 10 children is the victim of severe violence, such as being kicked, bitten, hit, beaten, or threatened with a knife or a gun. In fact, some researchers believe that physical abuse and neglect are the leading causes of death among young children.

Overall, girls and boys are physically abused at approximately the same rate. Although such abuse is perpetrated in all socioeconomic groups, it is apparently more common among the poor (Romero-Martínez et al., 2014; Fowler et al., 2013).

Abusers are usually the child’s parents (Ben-Natan et al., 2014; Humphrey, 2006). Clinical investigators have learned that abusive parents often have poor impulse control, low self-esteem, higher levels of depression, and weak parenting skills (Easterbrooks et al., 2013; Tolan et al., 2006; Mammen et al., 2002). Many were abused themselves as children and have had poor role models (Romero-Martínez et al., 2014; McCaghy et al., 2006).

In some cases, they are dealing with stressors such as marital discord or unemployment (Bor et al., 2013; Faust et al., 2008).

Studies suggest that the victims of child abuse may suffer both immediate and long-term psychological effects. Research has shown, for example, that they may have psychological symptoms such as anxiety, depression, or bed-wetting, and that they tend to display more performance and behavior problems in school (Keeshin et al., 2014; Buckingham & Daniolos, 2013). Long-term negative effects include lack of social acceptance, a higher number of medical and psychological disorders during adulthood, more abuse of alcohol and other substances, more impulsive and risk-taking behaviors, more arrests during adolescence and adulthood, a greater risk of becoming criminally violent, a higher unemployment rate, and a higher suicide rate (Afifi et al, 2014; Sujan et al., 2014; Faust et al., 2008). Finally, as many as one-third of those who are abused grow up to be abusive, neglectful, or inadequate parents themselves (Romero-Martínez et al., 2014; Yaghoubi-Doust, 2013; Heyman & Slep, 2002).

Two forms of child abuse have received special attention: psychological and sexual abuse. Psychological abuse may include severe rejection, excessive discipline, scapegoating and ridicule, isolation, and refusal to provide help for a child with psychological problems. It probably accompanies all forms of physical abuse and neglect and often occurs by itself. Child sexual abuse, the use of a child for gratification of adult sexual desires, may occur outside or within the home (Murray, Nguyen, & Cohen, 2014; Faust et al., 2008). Surveys suggest that at least 13 percent of women were forced into sexual contact with an adult male during childhood, many of them with their father or stepfather (Mash & Wolfe, 2012). At least 4 percent of men were also sexually abused during childhood.

Child sexual abuse appears to be equally common across all socioeconomic classes, races, and ethnic groups (Murray et al., 2014; McCaghy et al., 2006).

A variety of therapies have been used in cases of child abuse, including groups sponsored by Parents Anonymous, which help parents to develop insight into their behavior, provide training on alternatives to abuse, and teach coping and parenting skills (PA, 2014; Miller et al., 2007; Tolan et al., 2006). In addition, prevention programs, often in the form of home visitations and parent training, have proved promising (Beasley et al., 2014; Rubin et al., 2014).

Research suggests that the psychological needs of children who have been abused should be addressed as early as possible (Murray et al., 2014; Gray et al., 2000; Roesler & McKenzie, 1994). Clinicians and educators have launched valuable early detection programs that (1) educate all children about child abuse, (2) teach them skills for avoiding or escaping from abusive situations, (3) encourage children to tell another adult if they are abused, and (4) assure them that abuse is never their own fault (Miller et al., 2007; Goodman-Brown et al., 2003; Finkelhor et al., 1995).
The most common and successful treatments for encopresis are behavioral and medical approaches or a combination of the two (Collins et al., 2012; Christophersen & Friman, 2010; Friman, 2008). Treatment may include biofeedback training (see page 143) to help the children better detect when their bowels are full; trying to eliminate the children’s constipation; and stimulating regular bowel functioning with high-fiber diets, mineral oil, laxatives, and lubricants. Family therapy has also proved helpful.

Neurodevelopmental Disorders

Neurodevelopmental disorders are a group of disabilities in the functioning of the brain that emerge at birth or during very early childhood and affect a person’s behavior, memory, concentration, and/or ability to learn. As you read at the beginning of this chapter, many of the disorders first displayed during childhood subside as the person ages. However, the neurodevelopmental disorders often have a significant impact throughout the person’s life. For example, at least half of those with attention-deficit/hyperactivity disorder, one of the neurodevelopmental disorders, carry some version of their disorder with them into adulthood. Moreover, the vast majority of those with autism spectrum disorder and intellectual disability, two other neurodevelopmental disorders, continue to display the symptoms of their disorders in largely unchanged form throughout adulthood.

Researchers have investigated each of these disorders extensively. In addition, although this was not always so, clinicians now have a range of treatment approaches that can make a major difference in the lives of people with these problems.

Attention-Deficit/Hyperactivity Disorder

Children with attention-deficit/hyperactivity disorder (ADHD) have great difficulty attending to tasks, or behave overactively and impulsively, or both (APA, 2013) (see Table 17-5). ADHD often appears before the child starts school, as with Ricky, one of the boys we met at the beginning of this chapter. Steven is another child whose symptoms began very early in life:
Steven’s mother cannot remember a time when her son was not into something or in trouble. As a baby he was incredibly active, so active in fact that he nearly rocked his crib apart. All the bolts and screws became loose and had to be tightened periodically. Steven was also always into forbidden places, going through the medicine cabinet or under the kitchen sink. He once swallowed some washing detergent and had to be taken to the emergency room. As a matter of fact, Steven had many more accidents and was more clumsy than his older brother and younger sister. . . . He always seemed to be moving fast. His mother recalls that Steven progressed from the crawling stage to a running stage with very little walking in between.

Trouble really started to develop for Steven when he entered kindergarten. Since his entry into school, his life has been miserable and so has the teacher’s. Steven does not seem capable of attending to assigned tasks and following instructions. He would rather be talking to a neighbor or wandering around the room without the teacher’s permission. When he is seated and the teacher is keeping an eye on him to make sure that he works, Steven’s body still seems to be in motion. He is either tapping his pencil, fidgeting, or staring out the window and daydreaming. Steven hates kindergarten and has few long-term friends; indeed, school rules and demands appear to be impossible challenges for him. The effects of this mismatch are now showing in Steven’s schoolwork and attitude. He has fallen behind academically and has real difficulty mastering new concepts; he no longer follows directions from the teacher and has started to talk back.

(Gelfand, Jenson, & Drew, 1982, p. 256)

The symptoms of ADHD often feed into one another. Children who have trouble focusing attention may keep turning from task to task until they end up trying to run in several directions at once. Similarly, children who move constantly may

### Attention-Deficit/Hyperactivity Disorder

1. Individual presents one or both of the following patterns:
   1. For 6 months or more, individual frequently displays at least six of the following symptoms of inattention, to a degree that is maladaptive and beyond that shown by most similarly aged persons: • Unable to properly attend to details, or frequently makes careless errors • Finds it hard to maintain attention • Fails to listen when spoken to by others • Fails to carry out instructions and finish work • Disorganized • Dislikes or avoids mentally effortful work • Loses items that are needed for successful work • Easily distracted by irrelevant stimuli • Forgets to do many everyday activities.
   2. For 6 months or more, individual frequently displays at least six of the following symptoms of hyperactivity and impulsivity, to a degree that is maladaptive and beyond that shown by most similarly aged persons: • Fidgets, taps hands or feet, or squirms • Inappropriately wanders from seat • Inappropriately runs or climbs • Unable to play quietly • In constant motion • Talks excessively • Interrupts questioners during discussions • Unable to wait for turn • Barges in on others’ activities or conversations.

2. Individual displayed some of the symptoms before 12 years of age.

3. Individual shows symptoms in more than one setting.

4. Individual experiences impaired functioning.

(Information from: APA, 2013.)

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**ADHD and School**

- More than 90 percent of children with ADHD underachieve scholastically. On average, they have more failing grades and lower grade point averages than other children.
- Students with ADHD are more likely than other children to be retained, suspended, or expelled from school.
- Between 23 and 32 percent of children with ADHD do not complete high school.
- Twenty-two percent of people with ADHD are admitted to college.

(Rapport et al., 2008)
find it hard to attend to tasks or show good judgment. In many cases, one of these symptoms stands out much more than the other. About half of the children with ADHD also have learning or communication problems; many perform poorly in school; a number have difficulty interacting with other children, and about 80 percent misbehave, often quite seriously (Mash & Wolfe, 2012; Goldstein, 2011). It is also common for these children to have anxiety or mood problems (Advokat et al., 2014; Günther et al., 2011).

Around 5 percent of all children display ADHD at any given time, as many as 70 percent of them boys (APA, 2013; Merikangas et al., 2011). Those whose parents have had ADHD are more likely than others to develop it. The disorder usually persists throughout childhood. Many children show a marked lessening of symptoms as they move into mid-adolescence, but as many as 60 percent of affected children continue to have ADHD as adults (APA, 2013; Ramsay, 2010). The symptoms of restlessness and overactivity are not usually as pronounced in adult cases.

ADHD is a difficult disorder to assess properly (Batstra et al., 2014). Ideally, the child’s behavior should be observed in several environments (school, home, with friends) because the symptoms of hyperactivity and inattentiveness must be present across multiple settings in order for ADHD to be diagnosed (Burns et al., 2014; APA, 2013). Because children with ADHD often give poor descriptions of their symptoms, it is important to obtain reports of the child’s symptoms from his or her parents and teachers. And, finally, although diagnostic interviews, ratings scales, and psychological tests can be helpful in the assessment of ADHD (DuPaul & Kern, 2011), studies suggest that many children receive their diagnosis from pediatricians or family physicians rather than mental health professionals and that at most one-third of such diagnoses are based on psychological or educational testing (Millichap, 2010).

What Are the Causes of ADHD? Today’s clinicians generally consider ADHD to have several interacting causes. Biological factors have been identified in many cases, particularly abnormal activity of the neurotransmitter dopamine and abnormalities in the frontal-striatal regions of the brain (Advokat et al., 2014; Hale et al., 2010). The disorder has also been linked to high levels of stress and to family dysfunctioning (DuPaul & Kern, 2011; Rapport et al., 2008). In addition, sociocultural theorists have noted that ADHD symptoms and a diagnosis of ADHD may themselves create interpersonal problems and produce additional symptoms in the child. That is, children who are hyperactive tend to be viewed negatively by their peers and by their parents, and they often view themselves negatively as well (Martin, 2014; Chandler, 2010; Rapport et al., 2008).

How Is ADHD Treated? Almost 80 percent of all children and adolescents with ADHD receive treatment (Winter & Bienvenu, 2011). There is, however, disagreement in the field about which kind of treatment is most effective. The most commonly used approaches are drug therapy, behavioral therapy, or a combination of the two (Sibley et al., 2014).

**DRUG THERAPY** Like Tom, the child described in the following case, millions of children and adults with ADHD are currently treated with **methylphenidate**, a stimulant drug that actually has been available for decades, or with certain other stimulants.
Disorders Common Among Children and Adolescents

When Tom was born, he acted like a “crack baby,” his mother, Ann, says. “He responded violently to even the slightest touch, and he never slept.” Shortly after Tom turned two, the . . . day care center asked Ann to withdraw him. They deemed his behavior “just too aberrant,” she remembers. Tom’s doctors ran a battery of tests to screen for brain damage, but they found no physical explanation for his lack of self-control. In fact, his IQ was high—even though he performed poorly in school. Eventually, Tom was diagnosed with attention-deficit/hyperactivity disorder (ADHD). . . . The psychiatrist told Ann that in terms of severity, Tom was 15 on a scale of one to 10. As therapy, this doctor prescribed methylphenidate, a drug better known by its brand name, Ritalin.

(Leutwyler, 1996, p. 13)

Although a variety of manufacturers now produce methylphenidate, the drug continues to be known to the public by its most famous trade name, Ritalin. As researchers have confirmed Ritalin’s quieting effect on children with ADHD and its ability to help them focus, solve complex tasks, perform better at school, and control aggression, use of the drug has increased enormously—according to some estimates, at least a threefold increase since 1990 alone (Mash & Wolfe, 2012; Scheffler et al., 2007). This increase in use also extends to preschoolers.

It is estimated that 2.2 million children in the United States, 3 percent of all schoolchildren, regularly take Ritalin or other stimulant drugs for ADHD (Mash & Wolfe, 2012). Collectively, the stimulant drugs are now the most common treatment for the disorder. Many clinicians, though, worry about the possible long-term effects of the drugs, and others question whether the favorable findings of the drug studies (most of which have been done on white American children) are applicable to children from minority groups (Biederman et al., 2005, 2004).

Extensive investigations indicate that ADHD is overdiagnosed in the United States, so many children who are receiving stimulants may, in fact, have been inaccurately diagnosed (Batstra et al., 2014; Rapport et al., 2008). In addition, a number of clinicians and parents have questioned the safety of stimulants. During the late 1980s, several lawsuits were filed against physicians, schools, and even the American Psychiatric Association, claiming misuse of Ritalin (Safer, 1994). Most of the suits were dismissed, but the media blitz that surrounded them affected public perceptions. Ritalin has also become a popular recreational drug among teenagers and young adults; some snort it to get high, others use it to stay alert or improve their performance at school or work. A number of young people become dependent on it, further raising public concerns about the drug.

On the positive side, stimulant drugs are apparently very helpful to children and adults who do suffer from ADHD (Sibley et al., 2014; Carlson et al., 2010). As you will see, behavioral programs are also effective in many cases but not in all, and tend to be most effective when they are used in concert with stimulant drugs. When children with ADHD are taken off the drugs, many fare badly.
Most studies to date have indicated that stimulants are safe for the majority of people with ADHD (Berg et al., 2014; Rapport et al., 2008). Their undesired effects are usually no worse than insomnia, stomachaches, headaches, or loss of appetite. However, some research and case reports suggest that, in a small number of cases, stimulants may increase the risk of developing mild tremors or tics (Waugh, 2013), developing psychotic symptoms (Schwarz & Cohen, 2013), or having a heart attack—among people (primarily adults) who already have cardiac problems or high blood pressure (Berg et al., 2014). They also apparently can affect the growth of some children; to prevent this, children must take periodic breaks from the medications in what are called “drug holidays.”

**Behavior Therapy and Combination Therapies** Behavioral therapy has been used to help treat many people with ADHD. Parents and teachers learn how to reward children for their attentiveness or self-control, often by using a token economy program (DuPaul et al., 2011). Such operant conditioning treatments have been helpful for a number of children, especially when combined with stimulant drug therapy (Sibley et al., 2014; Dendy, 2011; Carlson et al., 2010). Combining behavioral and drug therapies is also desirable because, according to research, children who receive both treatments require lower levels of medication, meaning, of course, that they are less subject to the medication’s undesired effects (Hoza et al., 2008).

**Multicultural Factors and ADHD** Throughout this book, you have seen that race often affects how people are diagnosed and treated for various psychological disorders. Thus, you should not be totally surprised that race also seems to come into play with regard to ADHD.

A number of studies indicate that African American and Hispanic American children with significant attention and activity problems are less likely than white American children with similar symptoms to be assessed for ADHD, receive a diagnosis of ADHD, or undergo treatment for it (Morgan et al., 2014; Bussing et al., 2005, 2003, 1998). Moreover, among those who do receive such a diagnosis and treatment, children from racial minorities are less likely than white American children to be treated with stimulant drugs or a combination of stimulants and behavioral therapy—the interventions that seem to be of most help to those with ADHD (Pham et al., 2010; Stevens et al., 2005). And, finally, among those children who do receive stimulant drug treatment for ADHD, children from racial minorities are less likely than white American children to receive the promising (but more expensive) long-acting stimulant drugs that have been developed in recent years (Sugrue et al., 2014; Cooper, 2004).

In part, these racial differences in diagnosis and treatment are tied to economic factors. Studies consistently show that poorer children are less likely than wealthier ones to be identified as having ADHD and are less likely to receive effective treatment, and racial minority families have, on average, lower incomes and weaker insurance coverage than white American families. Consistent with this point, one study found that privately insured African American children with ADHD receive higher, more effective doses of stimulant drugs than do Medicaid-insured African American children with ADHD (Lipkin et al., 2005).

Some clinical theorists further believe that social bias and stereotyping may contribute to these racial differences in diagnosis and treatment. They argue that our society often views the symptoms of ADHD as medical problems when exhibited by white American children but as indicators of poor parenting, lower...
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IQ, substance use, or violence when displayed by African American and Hispanic American children (Duval-Harvey & Rogers, 2010; Kendall & Hatton, 2002). This notion has been supported by the finding of several classic studies that, all symptoms being equal, teachers are more likely to conclude that overactive white American children have ADHD but that overactive African American or Hispanic American children have other kinds of difficulties (Raymond, 1997; Samuel et al., 1997). Additionally, white American parents of children with ADHD are more likely than African American and Hispanic American parents to believe that their children have ADHD or to seek ADHD evaluations and treatments for their children (Hillemeier et al., 2007; Stevens et al., 2005; Kendall & Hatton, 2002).

Whatever the reason—economic disadvantage, social bias, racial stereotyping, or other factors—it appears that children from racial minority groups are less likely to receive a proper ADHD diagnosis and treatment. While many of today’s clinical theorists correctly alert us to the possibility that ADHD may be generally overdiagnosed and overtreated, it is important to also recognize that children from certain segments of society may, in fact, be underdiagnosed and undertreated.

Autism Spectrum Disorder

Autism spectrum disorder, a pattern first identified by psychiatrist Leo Kanner in 1943, is marked by extreme unresponsiveness to other people, severe communication deficits, and highly rigid and repetitive behaviors, interests, and activities (APA, 2013) (see Table 17-6). These symptoms appear early in life, typically before 3 years of age. Just a decade ago, the disorder seemed to affect around 1 out of every 2,000 children. However, in recent years there has been a steady increase in the number of children diagnosed with autism spectrum disorder, and it now appears that as many as 1 in 68 children display this pattern (CDC, 2014). Jennie is one such child:

Ms. D’Angelo [a special education teacher] first observed Jennie [Hobson] in a small classroom over a 5-day period. Jennie was often nonresponsive to others, especially her classmates, and rarely made eye contact with anyone. When left alone, Jennie would usually stand, put her hands over her throat, stick out her tongue, and make strange but soft noises. This would last for hours if she were left alone. When seated, Jennie rocked back and forth in her chair but never fell. Her motor skills seemed excellent and she could use crayons and manipulate paper when asked to do so. Her dexterity was also evident in her aggression, however. Jennie often grabbed people’s jewelry and eyeglasses and flung them across the room. She moved quickly enough to accomplish this in less than two seconds. . . . Ms. D’Angelo noticed that Jennie was most aggressive when introduced to something or someone new. . . .

Ms. D’Angelo noticed that Jennie did not speak and vocalized only when making her soft sounds. The volume of her sounds rarely changed but she appeared to make the sounds when bored or anxious. Jennie made no effort to communicate with others and was often oblivious to others. She was sometimes startled when asked to do something. Despite her lack of expressiveness, Jennie did understand and adhere to simple requests from others. She complied readily when told to get her lunch, use the bathroom, or retrieve an item in the classroom. . . .

Dx Checklist

Autism Spectrum Disorder

1. Individual displays continual deficiencies in various areas of communication and social interaction, including the following:
   • Social-emotional reciprocity • Nonverbal communication • Development and maintenance of relationships.

2. Individual displays significant restriction and repetition in behaviors, interests, or activities, including two or more of the following: • Exaggerated and repeated speech patterns, movements, or object use • Inflexible demand for same routines, statements, and behaviors • Highly restricted, fixated, and overly intense interests • Over- or underreactions to sensory input from the environment.

3. Individual develops symptoms by early childhood.

4. Individual experiences significant impairment.

(Information from: APA, 2013.)

Table 17-6

Autism Spectrum Disorder

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(Information from: APA, 2013.)

autism spectrum disorder  A developmental disorder marked by extreme unresponsiveness to others, severe communication deficits, and highly repetitive and rigid behaviors, interests, and activities.
Jennie had a “picture book” with photographs of items she might want or need. Jennie never picked up the book or presented it to anyone but did follow directions to use the book to make requests. When shown the book and asked to point, Jennie either pushed the book onto the desk if she did not want anything or pointed to one of five photographs (i.e., a lunch box, cookie, glass of water, favorite toy, or toilet) if she did want something. . . .

Following her classroom observations of Jennie, Ms. D’Angelo had an extensive conversation with Mr. and Mrs. Hobson. They said Jennie “had always been like this” and gave examples of her early impairment. Both said Jennie was “different” as a baby when she resisted being held and when she failed to talk by age 3 years. . . . Mr. and Mrs. Hobson had enrolled their daughter in her current school when she was 4 years old.

(Kearney, 2013, pp. 125–126)

Around 80 percent of all cases of autism spectrum disorder occur in boys. As many as 90 percent of children with the disorder remain significantly disabled into adulthood. They have enormous difficulty maintaining employment, performing household tasks, and leading independent lives (Sicile-Kira, 2014; Hollander et al., 2011). Even the highest-functioning adults with autism typically have problems with closeness and empathy and have restricted interests and activities.

The individual’s lack of responsiveness and social reciprocity—extreme aloofness, lack of interest in other people, low empathy, and inability to share attention with others—has long been considered a central feature of autism (Boyd et al., 2011; Constantino, 2011) (see PsychWatch on the next page). Like Jennie, children with autism typically do not reach for their parents during infancy. Instead they may arch their backs when they are held and appear not to recognize or care about those around them. In a similar vein, unlike other children of the same age, autistic children typically do not include others in their play or to represent social experiences when they are playing; they often fail to see themselves as others see them and have no desire to imitate or be like others (Bodfish, 2011; Boyd et al., 2011).

Communication problems take various forms in autism spectrum disorder. The nonverbal behaviors of these individuals are often at odds with their efforts at verbal communication. They may not, for example, use a proper tone when talking. It is also common for autistic persons to show few or no facial expressions or body gestures. In addition, a number are unable to maintain proper eye contact during interactions. Recall, for example, that Jennie “rarely made eye contact with anyone.”

Many autistic people have great difficulty understanding speech or using language for conversational purposes. In fact, like Jennie, approximately half fail to speak or develop language skills (Paul & Gilbert, 2011). Those who do talk may have rigid and repetitious speech patterns. One of the most common speech peculiarities is echolalia, the exact echoing of phrases spoken by others. The individuals repeat the words with the same accent or inflection, but with no sign of understanding or intent of communicating. Some even repeat a sentence days after they have heard it (delayed echolalia). Another speech oddity is pronominal reversal, or confusion of pronouns—for example, the use of “you” instead of “I.” When hungry, a child with autism spectrum disorder might say, “Do you want dinner?”

Autistic people also display a wide range of highly rigid and repetitive behaviors, interests, and activities that extend beyond speech patterns. Typically they become very upset at minor changes in objects, persons, or routines and resist any efforts
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What Happened to Asperger’s Disorder?

Around the time that Leo Kanner first identified autism in the early 1940s, a Viennese physician named Hans Asperger observed a similar syndrome that came to be known—for more than half a century—as Asperger’s disorder, or Asperger’s syndrome. Children with this disorder displayed certain autistic-like symptoms—social deficits, expressiveness difficulties, idiosyncratic interests, and restricted and repetitive behaviors—but at the same time they had normal (or near normal) intellectual, adaptive, and language skills (Perry, 2014; Miller & Ozonoff, 2011). Individuals with Asperger’s disorder wanted to fit in and interact with others, but their impaired social functioning made it hard for them to do so.

For decades, clinicians believed that Asperger’s disorder was closely related to autism. The disorder was included in past editions of the DSM and was widely diagnosed. But then, with the publication of DSM-5 in 2013, the category disappeared from sight. Where did it go? Well, the DSM-5 task force decided that it was, in fact, not a distinct disorder. It concluded that many of the cases previously diagnosed as Asperger’s disorder were really cases of high-functioning autism, while other cases were patterns that did not actually involve autistic-like functioning. According to DSM-5, individuals in the former group should now receive a diagnosis of autism spectrum disorder, whereas of those in the latter group should be assigned to other categories, such as a new one called social communication disorder—a nonautistic disorder characterized by persistent difficulties in communication, social relationships, and social responsiveness.

to change their own repetitive behaviors. Jennie’s special education teacher noticed that she was most aggressive when introduced to something or someone new.

Similarly, some children with the disorder react with tantrums if a parent wears an unfamiliar pair of glasses, a chair is moved to a different part of the room, or a word in a song is changed. Kanner (1943) labeled such reactions a perseveration of sameness. Many also become strongly attached to particular objects—plastic lids, rubber bands, buttons, water. They may collect these objects, carry them, or play with them constantly. Some are fascinated by movement and may watch spinning objects, such as fans, for hours.

People with autism may display motor movements that are unusual, rigid, and repetitive. They may jump, flap their arms, twist their hands and fingers, rock, walk on their toes, spin, and make faces. These acts are called self-stimulatory behaviors. Some autistic individuals also perform self-injurious behaviors, such as repeatedly lunging into or banging their head against a wall, pulling their hair, or biting themselves (Aman & Farmer, 2011; Farmer & Aman, 2011).

The symptoms of autism spectrum disorder suggest a very disturbed and contradictory pattern of reactions to stimuli (see PsychWatch on page 591). Sometimes the individuals seem overstimulated by sights and sounds and appear to be trying to block them out (called hyperreactivity), while at other times they seem understimulated and appear to be performing self-stimulatory actions (called hyporeactivity). They may, for example, be nonreactive to loud noises yet turn around when they hear soda being poured, or they may fail to recognize that they have reached the edge of a dangerous high place yet immediately spot a small object that is out of position in their room.

Disappearing Diagnosis

Despite their impairments, a number of those who received the past diagnosis of Asperger’s disorder have reached impressive heights. A butterfly perches on the nose of one such person, a 14-year-old boy who won a national award for activities such as playing the piano at nursing homes and raising chickens, peacocks, strawberries, and more on his family’s farm in Ohio.

Joshua Gunter/The Plain Dealer/AP Photo
What Are the Causes of Autism Spectrum Disorder? A variety of explanations have been offered for autism spectrum disorder. This is one disorder for which sociocultural explanations have probably been overemphasized. In fact, such explanations initially led investigators in the wrong direction. More recent work in the psychological and biological spheres has persuaded clinical theorists that cognitive limitations and brain abnormalities are the primary causes of this disorder.

**SOCIOCULTURAL CAUSES** At first, theorists thought that family dysfunction and social stress were the primary causes of autism spectrum disorder. When he first identified this disorder, for example, Kanner argued that particular personality characteristics of the parents created an unfavorable climate for development and contributed to the disorder (Kanner, 1954, 1943). He saw these parents as very intelligent yet cold—“refrigerator parents.” These claims had enormous influence on the public and on the self-image of the parents themselves, but research has totally failed to support a picture of rigid, cold, rejecting, or disturbed parents (Sicile-Kira, 2014; Vierck & Silverman, 2011).

Similarly, some clinical theorists have proposed that a high degree of social and environmental stress were a factor in the disorder. Once again, however, research has not supported this notion. Investigators who have compared autistic children with nonautistic children have found no differences in the rate of parental death, divorce, separation, financial problems, or environmental stimulation (Landrigan, 2011; Cox et al., 1975).

**PSYCHOLOGICAL CAUSES** According to certain theorists, people with autism spectrum disorder have a central perceptual or cognitive disturbance that makes normal communication and interactions impossible. One influential explanation holds that those with the disorder fail to develop a theory of mind—an awareness that other people base their behaviors on their own beliefs, intentions, and other mental states, not on information that they have no way of knowing (Kimhi et al., 2014; O’Nions et al., 2014; Frith, 2000).

By 3 to 5 years of age, most normal children can take the perspective of another person into account and use it to anticipate what the person will do. In a way, they learn to read others’ minds. Let us say, for example, that we watch Jessica place a
marble in a container and then we observe Frank move the marble to a nearby room while Jessica is taking a nap. We know that later Jessica will search first in the container for the marble because she is not aware that Frank moved it. We know that because we take Jessica’s perspective into account. A normal child would also anticipate Jessica’s search correctly. An autistic child would not. He or she would expect Jessica to look in the nearby room because that is where the marble actually is. Jessica’s own mental processes would be unimportant to the person.

Studies show that people with autism spectrum disorder do indeed have this kind of “mind-blindness,” although they are not the only kinds of individuals with this limitation (Loukusa et al., 2014). They thus have great difficulty taking part in make-believe play, using language in ways that include the perspectives of others, developing relationships, or participating in human interactions. Why do autistic people have this and other cognitive limitations? Some theorists believe that they suffered early biological problems that prevented proper cognitive development.

**BIOLOGICAL CAUSES** For years researchers have tried to determine what biological abnormalities might cause theory-of-mind deficits and the other features of autism spectrum disorder. They have not yet developed a complete biological explanation, but they have uncovered some promising leads. First, examinations of the relatives of autistic people keep suggesting a **genetic factor** in this disorder (Sakurai et al., 2011). The prevalence of autism among their siblings, for example, is as high as 10 per 100 (Risch et al., 2014), a rate much higher than the general population’s.

**PsychWatch**

**A Special Kind of Talent**

Most people are familiar with the savant syndrome, thanks to Dustin Hoffman’s portrayal of a man with autism in the movie *Rain Man*. The savant skills that Hoffman portrayed—counting 246 toothpicks in the instant after they fall to the floor, memorizing the phone book through the Gs, and doing numerical calculations at lightning speed—were based on the astounding talents of certain real-life people who are otherwise limited by autism spectrum disorder or intellectual disability (formerly known as mental retardation).

A savant (French for “learned” or “clever”) is a person with a major mental disorder or intellectual handicap who has some spectacular ability. Often these abilities are remarkable only in light of the handicap, but sometimes they are remarkable by any standard (Treffert, 2014; Yewchuk, 1999). A common savant skill is calendar calculating, the ability to calculate what day of the week a date will fall on, such as New Year’s Day in 2050.

A common musical skill such people may possess is the ability to play a piece of classical music flawlessly from memory after hearing it only once. Other individuals can paint exact replicas of scenes they saw years ago.

Some theorists believe that savant skills do indeed represent special forms of cognitive functioning; others propose that the skills are merely a positive side to certain cognitive deficits (Treffert, 2014; Howlin, 2012; Scheuffgen et al., 2000). Special memorization skills, for example, may be facilitated by the very narrow and intense focus that people with autism often have.

Special insights One of the highest-achieving autistic people in the world is Dr. Temple Grandin, a professor at Colorado State University. Applying her personal perspective and unique visualization skills, she has developed insight into the minds and sensitivities of cattle and has designed more humane animal-handling equipment and facilities. She argues that autistic savants and animals share cognitive similarities.
Moreover, the prevalence of autism among the identical twins of autistic people is 60 percent.

Some studies have also linked autism spectrum disorder to prenatal difficulties or birth complications (Reichenberg et al., 2011). For example, the chances of developing the disorder are higher when the mother had rubella (German measles) during pregnancy, was exposed to toxic chemicals before or during pregnancy, or had complications during labor or delivery.

Finally, researchers have identified specific biological abnormalities that may contribute to autism spectrum disorder. One line of research has pointed to the cerebellum (Allen, 2011; Teicher et al., 2008; Pierce & Courchesne, 2002, 2001). Brain scans and autopsies show abnormal development in this brain area occurring early in the life of autistic people. Scientists have long known that the cerebellum coordinates movement in the body, but they now suspect that it also helps control a person’s ability to shift attention rapidly. It may be that people whose cerebellum develops abnormally will have great difficulty adjusting their level of attention, following verbal and facial cues, and making sense of social information—all key features of autism.

In a similar vein, neuroimaging studies indicate that many autistic children have increased brain volume and white matter and structural abnormalities in the brain’s limbic system, brain stem nuclei, and amygdala (Bachevalier, 2011; Bauman, 2011). Many people with autism also have reduced activity in the brain’s temporal and frontal lobes when they perform language and motor tasks (Taylor et al., 2014; Escalante et al., 2003).

Given such findings, many researchers believe that autism spectrum disorder may have multiple biological causes (Hollander, 2013; Hollander et al., 2011). Perhaps each of the relevant biological factors (genetic, prenatal, birth, and postnatal) can eventually lead to a common problem in the brain—a “final common pathway,” such as neurotransmitter abnormalities, that produces the cognitive problems and other features of the disorder.

Finally, because it has received so much attention over the past 15 years, it is worth examining a biological explanation for autism spectrum disorder that has not been borne out—the MMR vaccine theory. In 1998 a team of investigators published a study suggesting that a postnatal event—the vaccine for measles, mumps, and rubella (MMR vaccine)—might produce autistic symptoms in some children (Wakefield et al., 1998). Specifically, the researchers thought that for certain children, this vaccine, which is usually given to children between the ages of 12 and 15 months, produces an increase in the measles virus throughout the body which in turn causes the onset of a powerful stomach disease and, ultimately, autism spectrum disorder.

However, virtually all research conducted since 1998 has argued against this theory (Taylor, Swerdfeger, & Eslick, 2014; Ahearn, 2010; Uchiyama et al., 2007). First, epidemiological studies repeatedly have found that children throughout the world who receive the MMR vaccine have the same prevalence of autism as those who do not receive the vaccine. Second, according to research, children with autism do not have more measles viruses in their bodies than children without autism. Third, autistic children do not have the special stomach disease proposed by this theory. Finally, careful reexaminations of the original study have indicated that it was methodologically flawed and perhaps manipulated and that it failed to demonstrate any relationship between the MMR vaccine and the development of autism.
How Do Clinicians and Educators Treat Autism Spectrum Disorder? Treatment can help people with autism spectrum disorder adapt better to their environment, although no treatment yet known totally reverses the autistic pattern. Treatments of particular help are cognitive-behavioral therapy, communication training, parent training, and community integration. In addition, psychotropic drugs and certain vitamins have sometimes helped when combined with other approaches (Sicile-Kira, 2014; Ristow et al., 2011; Hellings et al., 2010).

COGNITIVE-BEHAVIORAL THERAPY Behavioral approaches have been used in cases of autism for more than 35 years to teach new, appropriate behaviors, including speech, social skills, classroom skills, and self-help skills, while reducing negative, dysfunctional ones. Most often, the therapists use modeling and operant conditioning. In modeling, they demonstrate a desired behavior and guide autistic individuals to imitate it. In operant conditioning, they reinforce desired behaviors, first by shaping them—breaking them down so they can be learned step by step—and then rewarding each step clearly and consistently. With careful planning and execution, these procedures often produce new, more functional behaviors.

A pioneering, long-term study compared the progress of two groups of children with autism spectrum disorder (Lovaas, 2003, 1987; McEachin et al., 1993). Nineteen received intensive behavioral treatments, and 19 served as a control group. The treatment began when the children were 3 years old and continued until they were 7. By the age of 7, the behavioral group was doing better in school and scoring higher on intelligence tests than the control group. Many were able to go to school in regular classrooms. The gains continued into the research participants’ teenage years. Given the favorable findings of this and similar studies, many clinicians now consider early behavioral programs to be the preferred treatment for autism spectrum disorder (Peters-Scheffer et al., 2011; Soorya et al., 2011).

One behavioral program that has achieved considerable success is the Learning Experiences: An Alternative Program (LEAP) for preschoolers with autism (Boyd et al., 2014; Kohler et al., 2005). In this program, 4 autistic children are integrated with 10 nonautistic children in a classroom. The nonautistic children learn how to use modeling and operant conditioning in order to help teach social, communication, play, and other skills to the autistic children. The program has been found to improve significantly the cognitive functioning of autistic children, as well as their social and peer interactions, play behaviors, and other behaviors. Moreover, the nonautistic children in the classroom experience no negative effects as a result of serving as intervention agents.

As such programs suggest, therapies for people with autism spectrum disorder, particularly behavioral therapies, tend to provide the most benefit when they are started early in the children’s lives (Carter et al., 2011; Magiati et al., 2011). Very young autistic children often begin with services at home, but ideally, by the age of 3 they attend special programs outside the home. A federal law lists autism spectrum disorder as 1 of 10 disorders for which school districts must provide a free education from birth to age 22, in the least restrictive or most appropriate setting possible. Typically, services are provided by education, health, or social service agencies until the children reach 3 years of age; then the department of education for each state determines which services will be offered.
Given the recent increases in the prevalence of autism spectrum disorder, many school districts are now trying to provide education and training for autistic children in special classes that operate at the district’s own facilities (Wilczynski et al., 2011). However, most school districts remain ill-equipped to meet the profound needs of students with autism. The most fortunate autistic students are sent by their school districts to attend special schools, where education and therapy are combined. At such schools, specially trained teachers help the children improve their skills, behaviors, and interactions with the world. Higher-functioning autistic students may eventually spend at least part of their school day returning to standard classrooms in their own school district (Hartford & Marcus, 2011; Smith et al., 2002).

**COMMUNICATION TRAINING** Even when given intensive behavioral treatment, half of the people with autism spectrum disorder remain speechless. To help address this, they are often taught other forms of communication, including sign language and simultaneous communication, a method combining sign language and speech. They may also learn to use augmentative communication systems, such as “communication boards” or computers that use pictures, symbols, or written words to represent objects or needs (Prelock et al., 2011; Randoss et al., 2011). A child may point to a picture of a fork to give the message “I am hungry,” for instance, or point to a radio for “I want music.” Recall, for example, the use of a “picture book” by Jennie, the child whose case introduced this section.

Some programs now use child-initiated interactions to help improve the communication skills of autistic children (Houghton et al., 2013; Koegel et al., 2010, 2005). In such programs, teachers try to identify intrinsic reinforcers rather than trivial ones like food or candy. The children are first encouraged to choose items that they are interested in, and they then learn to initiate questions (“What’s that?” “Where is it?” “Whose is it?”) in order to obtain the items. Studies find that child-directed interventions of this kind often increase self-initiated communications, language development, and social participation (Houghton et al., 2013; Koegel et al., 2010, 2005).

**PARENT TRAINING** Today’s treatment programs for autism spectrum disorder involve parents in a variety of ways. Behavioral programs, for example, often train parents so that they can use behavioral techniques at home (Sicile-Kira, 2014; Hollander et al., 2011). Instruction manuals for parents and home visits by teachers and other professionals are typically included in such programs. Research consistently has demonstrated that the behavioral gains produced by trained parents are often equal to or greater than those generated by teachers.

In addition to parent-training programs, individual therapy and support groups are becoming more available to help the parents of autistic children deal with their own emotions and needs (Hastings, 2008). A number of parent associations and lobbies also offer emotional support and practical help.

**COMMUNITY INTEGRATION** Many of today’s school-based and home-based programs for autism spectrum disorder teach self-help, self-management, and living, social, and work skills as early as possible to help the individuals function better in their communities. In addition, greater numbers of carefully run group homes and sheltered workshops are now available for teenagers and young adults with autism. These and related programs help those with autism become a part of their community; they also reduce the concerns of aging parents whose children will always need supervision.

**The iPad breakthrough**
A child works on an iPad as his teacher looks on. A major new trend in the training and treatment of autism spectrum disorder is the use of electronic tablets. They are effective augmentative communication systems, and they also seem to provide enormous cognitive stimulation and pleasure for people with autism.
Disorders Common Among Children and Adolescents

Intellectual Disability

Ed Murphy, aged 26, can tell us what it’s like to be considered “mentally retarded”:

What is retardation? It’s hard to say. I guess it’s having problems thinking. Some people think that you can tell if a person is retarded by looking at them. If you think that way you don’t give people the benefit of the doubt. You judge a person by how they look or how they talk or what the tests show, but you can never really tell what is inside the person.

(Bogdan & Taylor, 1976, p. 51)

For much of his life Ed was labeled mentally retarded and was educated and cared for in special institutions. During his adult years, clinicians discovered that Ed’s intellectual ability was in fact higher than had been assumed. In the meantime, however, he had lived the childhood and adolescence of a person labeled mentally retarded, and his statement reveals the kinds of difficulties often faced by people with this disorder.

In DSM-5, the term “mental retardation” has been replaced by intellectual disability. This term is applied to a varied population, including children in institutional wards who rock back and forth, young people who work in special job programs, and men and women who raise and support their families by working at undemanding jobs. As many as 3 of every 100 people meet the criteria for this diagnosis (APA, 2013; Harris, 2010). Around three-fifths of them are male, and the vast majority display a mild level of the disorder.

People receive a diagnosis of intellectual disability (ID) when they display general intellectual functioning that is well below average, in combination with poor adaptive behavior (APA, 2013). That is, in addition to having a low IQ (a score of 70 or below), a person with ID has great difficulty in areas such as communication, home living, self-direction, work, or safety (APA, 2013). The symptoms also must appear before the age of 18 (see Table 17-7).

Assessing Intelligence Educators and clinicians administer intelligence tests to measure intellectual functioning (see Chapter 4). These tests consist of a variety of questions and tasks that rely on different aspects of intelligence, such as knowledge, reasoning, and judgment. Having difficulty in just one or two of these subtests or areas of functioning does not necessarily reflect low intelligence (see PsychWatch on page 597). It is an individual’s overall test score, or intelligence quotient (IQ), that is thought to indicate general intellectual ability.

Many theorists have questioned whether IQ tests are indeed valid. Do they actually measure what they are supposed to measure?

The correlation between IQ and school performance is rather high—around .50—indicating that many children with lower IQs do, as one might expect, perform poorly in school, while many of those with higher IQs perform better (Sternberg et al., 2001). At the same time, the correlation also suggests that the relationship is far from perfect. That is, a particular child’s school performance is often higher or lower than his or her IQ might predict. Moreover, the accuracy of IQ tests at

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<td>Intellectual Disability</td>
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<tr>
<td>1. Individual displays deficient intellectual functioning in areas such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning, and learning from experience. The deficits are reflected by clinical assessment and intelligence tests.</td>
</tr>
<tr>
<td>2. Individual displays deficient adaptive functioning in at least one area of daily life, such as communication, social involvement, or personal independence, across home, school, work, or community settings. The limitations extend beyond those displayed by most other persons of his or her age and necessitate ongoing support at school, work, or independent living.</td>
</tr>
<tr>
<td>3. The deficits begin during the developmental period (before the age of 18).</td>
</tr>
</tbody>
</table>

(Information from: APA, 2013)
measuring extremely low intelligence has not been evaluated adequately, so it is difficult to properly assess people with severe intellectual disability (AAIDD, 2013).

Intelligence tests also appear to be socioculturally biased, as you read in Chapter 4. Children reared in households at the middle and upper socioeconomic levels tend to have an advantage on the tests because they are regularly exposed to the kinds of language and thinking that the tests evaluate. The tests rarely measure the “street sense” needed for survival by people who live in poor, crime-ridden areas—a kind of know-how that certainly requires intellectual skills. Members of cultural minorities and people for whom English is a second language also often appear to be at a disadvantage in taking these tests.

If IQ tests do not always measure intelligence accurately and objectively, then the diagnosis of intellectual disability also may be biased. That is, some people may receive the diagnosis partly because of test inadequacies, cultural differences, discomfort with the testing situation, or the bias of a tester.

Assessing Adaptive Functioning Diagnosticians cannot rely solely on a cutoff IQ score of 70 to determine whether a person suffers from intellectual disability. Some people with a low IQ are quite capable of managing their lives and functioning independently, while others are not. The cases of Brian and Jeffrey show the range of adaptive abilities.

Brian comes from a lower-income family. He always has functioned adequately at home and in his community. He dresses and feeds himself and even takes care of himself each day until his mother returns home from work. He also plays well with his friends. At school, however, Brian refuses to participate or do his homework. He seems ineffective, at times lost, in the classroom. Referred to a school psychologist by his teacher, he received an IQ score of 60.

Jeffrey comes from an upper-middle-class home. He was always slow to develop, and sat up, stood, and talked late. During his infancy and toddler years, he was put in a special stimulation program and given special help and attention at home. Still Jeffrey has trouble dressing himself today and cannot be left alone in the backyard lest he hurt himself or wander off into the street. Schoolwork is very difficult for him. The teacher must work slowly and provide individual instruction for him. Tested at age 6, Jeffrey received an IQ score of 60.

Brian seems well adapted to his environment outside school. However, Jeffrey’s limitations are pervasive. In addition to his low IQ score, Jeffrey has difficulty meeting challenges at home and elsewhere. Thus a diagnosis of intellectual disability may be more appropriate for Jeffrey than for Brian.

Several scales have been developed to assess adaptive behavior. Here again, however, some people function better in their lives than the scales predict, while others fall short. Thus to properly diagnose intellectual disability, clinicians should probably observe the adaptive functioning of each individual in his or her everyday environment, taking both the person’s background and the community’s standards into account. Even then, such judgments may be subjective, as clinicians may not be familiar with the standards of a particular culture or community.
What Are the Features of Intellectual Disability? The most consistent feature of intellectual disability is that the person learns very slowly (Sturmey & Didden, 2014; AAIDD, 2013). Other areas of difficulty are attention, short-term memory, planning, and language. Those who are institutionalized with this disorder are particularly likely to have these limitations. It may be that the unstimulating environment and minimal interactions with staff in many institutions contribute to such difficulties. Traditionally, four levels of intellectual developmental disorder
have been distinguished: *mild* (IQ 50–70), *moderate* (IQ 35–49), *severe* (IQ 20–34), and *profound* (IQ below 20).

**Mild ID** Some 80 to 85 percent of all people with intellectual disability fall into the category of *mild ID* (IQ 50–70). This is sometimes called the “educable” level because the individuals can benefit from schooling and can support themselves as adults. Mild ID is not usually recognized until children enter school and are assessed there. They demonstrate rather typical language, social, and play skills, but they need assistance when under stress—a limitation that becomes increasingly apparent as academic and social demands increase. Interestingly, the intellectual performance of individuals with mild ID often seems to improve with age; some even seem to leave the label behind when they leave school, and they go on to function well in the community (Sturmey & Didden, 2014; Sturmey, 2008). Their jobs tend to be unskilled or semiskilled.

Research has linked mild ID mainly to sociocultural and psychological causes, particularly poor and unstimulating environments during a child’s early years, inadequate parent–child interactions, and insufficient learning experiences (Sturmey & Didden, 2014; Sturmey, 2008; Stromme & Magnus, 2000). These relationships have been observed in studies comparing deprived and enriched environments (see Figure 17-3). In fact, some community programs have sent workers into the homes of young children with low IQ scores to help enrich the environment there, and their interventions have often improved the children’s functioning. When continued, programs of this kind also help improve the person’s later performance in school and adulthood (Pungello et al., 2010; Ramey & Ramey, 2007, 2004, 1992).

Although sociocultural and psychological factors seem to be the leading causes of mild ID, at least some biological factors also may be operating. Studies suggest, for example, that a mother’s moderate drinking, drug use, or malnutrition during pregnancy may lower her child’s intellectual potential (Hart & Ksir, 2013). Malnourishment during a child’s early years also may hurt his or her intellectual development, although this effect can usually be reversed at least partly if a child’s diet is improved before too much time goes by.

**Moderate, Severe, and Profound ID** Approximately 10 percent of those with intellectual disability function at a level of *moderate ID* (IQ 35–49). They typically receive their diagnosis earlier in life than do individuals with mild ID, as they demonstrate clear deficits in language development and play during their preschool years. By middle school they further show significant delays in their acquisition of reading and number skills and adaptive skills. By adulthood, however, many individuals with moderate ID manage to develop a fair degree of communication skill, learn to care for themselves, benefit from vocational training, and can work in unskilled or semiskilled jobs, usually under supervision. Most also function well in the community if they have supervision (AAIDD, 2013).

Approximately 3 to 4 percent of people with intellectual disability display *severe ID* (IQ 20–34). They typically demonstrate basic motor and communication deficits during infancy. Many also show signs of neurological dysfunction and have an increased risk for brain seizure disorder. In school, they may be able to string together only two or three words when speaking. They usually require careful supervision, profit somewhat from vocational training, and can perform only basic work tasks in structured and sheltered settings. Their understanding of
communication is usually better than their speech. Most are able to function well in the community if they live in group homes, in community nursing homes, or with their families (AAIDD, 2013).

Around 1 to 2 percent of all people with intellectual disability function at a level of profound ID (IQ below 20). This level is very noticeable at birth or early infancy. With training, people with profound ID may learn or improve basic skills such as walking, some talking, and feeding themselves. They need a very structured environment, with close supervision and considerable help, including a one-to-one relationship with a caregiver, in order to develop to the fullest (AAIDD, 2013).

Severe and profound levels of intellectual disability often appear as part of larger syndromes that include severe physical handicaps. The physical problems are often even more limiting than the individual’s low intellectual functioning and in some cases can be fatal.

What Are the Biological Causes of Intellectual Disability?
As you read earlier, the primary causes of mild ID are environmental, although biological factors may also be operating in many cases. In contrast, the main causes of moderate, severe, and profound ID are biological, although people who function at these levels also are strongly affected by their family and social environment (Sturmey & Didden, 2014; Fletcher, 2011). The leading biological causes of intellectual disability are chromosomal abnormalities, metabolic disorders, prenatal problems, birth complications, and childhood diseases and injuries.

CHROMOSOMAL CAUSES The most common of the chromosomal disorders that lead to intellectual disability is Down syndrome, named after Langdon Down, the British physician who first identified it. Down syndrome occurs in fewer than 1 of every 1,000 live births, but the rate increases significantly when the mother’s age is over 35. Many older expectant mothers are now encouraged to undergo amniocentesis (testing of the amniotic fluid that surrounds the fetus) or other tests during the early months of pregnancy to identify Down syndrome and other chromosomal abnormalities.

People with Down syndrome may have a small head, flat face, slanted eyes, high cheekbones, and, in some cases, protruding tongue. The latter may affect their ability to pronounce words clearly. They are often very affectionate with family members but in general display the same range of personality characteristics as people in the general population.

Reaching higher
Today people with Down syndrome are viewed as individuals who can learn and accomplish many things in their lives. Eddie Gordon, a teenager with Down syndrome, is lifted into the air in celebration by his Timberline High School baseball teammates. He has just rounded the bases during his turn as an honorary lead-off batter.

- mild ID A level of intellectual disability (IQ between 50 and 70) at which people can benefit from education and can support themselves as adults.
- moderate ID A level of intellectual disability (IQ between 35 and 49) at which people can learn to care for themselves and can benefit from vocational training.
- severe ID A level of intellectual disability (IQ between 20 and 34) at which people require careful supervision and can learn to perform basic work in structured and sheltered settings.
- profound ID A level of intellectual disability (IQ below 20) at which people need a very structured environment with close supervision.
- Down syndrome A form of intellectual disability caused by an abnormality in the 21st chromosome.
Several types of chromosomal abnormalities may cause Down syndrome (Hazlett et al., 2011). The most common type (94 percent of cases) is trisomy 21, in which the person has three free-floating 21st chromosomes instead of two. Most people with Down syndrome range in IQ from 35 to 55. The individuals appear to age early, and many even show signs of neurocognitive decline as they approach 40 (Powell et al., 2014; Lawlor et al., 2001). It may be that Down syndrome and early neurocognitive decline often occur together because the genes that produce them are located close to each other on chromosome 21 (Lamar et al., 2011; Selkoe, 1991).

Fragile X syndrome is the second most common chromosomal cause of intellectual disability. Children born with a fragile X chromosome (that is, an X chromosome with a genetic abnormality that leaves it prone to breakage and loss) generally display mild to moderate degrees of intellectual dysfunctioning, language impairments, and in some cases, behavioral problems (Hagerman, 2011). Typically, they are shy and anxious.

**METABOLIC CAUSES** In metabolic disorders, the body’s breakdown or production of chemicals is disturbed. The metabolic disorders that affect intelligence and development are typically caused by the pairing of two defective recessive genes, one from each parent. Although one such gene would have no influence if it were paired with a normal gene, its pairing with another defective gene leads to major problems for the child.

The most common metabolic disorder to cause intellectual disability is phenylketonuria (PKU), which strikes 1 of every 14,000 children. Babies with PKU appear normal at birth but cannot break down the amino acid phenylalanine. The chemical builds up and is converted into substances that poison the system, causing severe intellectual dysfunction and several other symptoms (Waisbren, 2011). Today infants can be screened for PKU, and if started on a special diet before 3 months of age, they may develop normal intelligence.

Children with Tay-Sachs disease, another metabolic disorder resulting from a pairing of recessive genes, progressively lose their mental functioning, vision, and motor ability over the course of two to four years, and eventually die. One of every 30 persons of Eastern European Jewish ancestry carries the recessive gene responsible for this disorder, so that 1 of every 900 Jewish couples is at risk for having a child with Tay-Sachs disease.

**PRENATAL AND BIRTH-RELATED CAUSES** As a fetus develops, major physical problems in the pregnant mother can threaten the child’s prospects for a normal life (AAIDD, 2013; Bebko & Weiss, 2006). When a pregnant woman has too little iodine in her diet, for example, her child may be born with cretinism, also called severe congenital hypothyroidism, marked by an abnormal thyroid gland, slow development, intellectual disability, and a dwarflike appearance. This condition is rare today because the salt in most diets now contains extra iodine. Also, any infant born with this problem may quickly be given thyroid extract to bring about normal development.

Other prenatal problems may also cause intellectual disability. As you saw in Chapter 12, children whose mothers drink too much alcohol during pregnancy may be born with fetal alcohol syndrome, a group of very serious problems that includes mild to severe ID (Bakoyiannis et al, 2014; Hart & Ksir, 2014). In fact, a generally safe level of alcohol consumption during pregnancy has not been established by research. In addition, certain maternal infections during pregnancy—rubella (German measles) and syphilis, for example—may cause childhood problems that include intellectual disability.

Birth complications also can lead to problems in intellectual functioning. A prolonged period without oxygen (anoxia) during or after delivery can cause brain damage and intellectual disability in a baby. In addition, although premature birth
does not necessarily lead to long-term problems for children, researchers have found that some babies with a premature birth weight of less than 3.5 pounds display low intelligence (AAIDD, 2013; Taylor, 2010).

**CHILDHOOD PROBLEMS** After birth, particularly up to age 6, certain injuries and accidents can affect intellectual functioning and in some cases lead to intellectual disability. Poisonings, serious head injuries caused by accident or abuse, excessive exposure to X-rays, and excessive use of certain drugs pose special dangers (AAIDD, 2013; Evans, 2006). For example, a serious case of lead poisoning, from eating lead-based paints or inhaling high levels of automobile fumes, can cause ID in children. Mercury, radiation, nitrite, and pesticide poisoning may do the same. In addition, certain infections, such as meningitis and encephalitis, can lead to intellectual disability if they are not diagnosed and treated in time (AAIDD, 2013; Durkin et al., 2000).

**Interventions for People with Intellectual Disability** The quality of life attained by people with intellectual disability depends largely on sociocultural factors: where they live and with whom, how they are educated, and the growth opportunities available at home and in the community. Thus intervention programs for these individuals try to provide comfortable and stimulating residences, a proper education, and social and economic opportunities. At the same time, the programs seek to improve the self-image and self-esteem of those with intellectual disability. Once these needs are met, formal psychological or biological treatments are also of help in some cases.

**WHAT IS THE PROPER RESIDENCE?** Until recent decades, parents of children with intellectual disability would send them to live in public institutions—state schools—as early as possible (Harris, 2010). These overcrowded institutions provided basic care, but residents were neglected, often abused, and isolated from society.

During the 1960s and 1970s, the public became more aware of these sorry conditions and, as part of the broader deinstitutionalization movement (see Chapter 15), demanded that many people with intellectual disability be released from the state schools (Harris, 2010). In many cases, the releases were done without adequate preparation or supervision. Like people with schizophrenia who were suddenly deinstitutionalized, those with intellectual disability were virtually dumped into the community. Often they failed to adjust and had to be institutionalized once again.

Since that time, reforms have led to the creation of small institutions and other community residences (group homes, halfway houses, local branches of larger institutions, and independent residences) that teach self-sufficiency, devote more staff time to patient care, and offer educational and medical services. Many of these settings follow the principles of normalization first started in Denmark and Sweden—they attempt to provide living conditions similar to those enjoyed by the rest of society; flexible routines; and normal developmental experiences, including opportunities for self-determination, sexual fulfillment, and economic freedom (Hemmings, 2010; Hodapp & Dykens, 2003).

Today the vast majority of children with intellectual disability live at home rather than in an institution. During adulthood and as their parents age, however, some people with intellectual disability require levels of assistance and opportunities that their families are unable to provide. A community residence becomes an appropriate alternative for them. Most people with intellectual disability, including almost all with mild ID, now spend their adult lives either in the family home or in a community residence (Sturmey & Didden, 2014; Sturmey, 2008).
WHICH EDUCATIONAL PROGRAMS WORK BEST? Because early intervention seems to offer such great promise, educational programs for people with intellectual disability may begin during the earliest years. The appropriate education depends on the person’s level of functioning. Educators hotly debate whether special classes or mainstreaming is most effective once the children enter school (McKenzie, McConkey, & Adnams, 2014; Hardman, Drew, & Egan, 2002).

In special education, children with intellectual disability are grouped together in a separate, specially designed educational program. In contrast, in mainstreaming, or inclusion, they are placed in regular classes with students from the general school population. Neither approach seems consistently superior (McKenzie et al., 2014; Bebko & Weiss, 2006). It may well be that mainstreaming is better for some areas of learning and for some children, and special classes are better for others.

Teacher preparedness is another factor that may play into decisions about mainstreaming and special education classes. Many teachers report feeling inadequately prepared to provide training and support for children with intellectual disability, especially children who have additional problems (Scheuermann et al., 2003). Brief training courses for teachers appear to address such concerns (Campbell et al., 2003).

Teachers who work with students with intellectual disability often use operant conditioning principles to improve their students’ self-help, communication, social, and academic skills (Sturmey & Didden, 2014; Sturmey, 2008; Ardoin et al., 2004). They break learning tasks down into small steps, giving positive reinforcement for each increment of progress. Additionally, many institutions, schools, and private homes have set up token economy programs—the operant conditioning programs that have also been used to treat institutionalized patients who have schizophrenia.

WHEN IS THERAPY NEEDED? Like anyone else, people with intellectual disability sometimes have emotional and behavioral problems. Around 30 percent or more have a psychological disorder other than intellectual disability (Sturmey & Didden, 2014; Bouras & Holt, 2010). Furthermore, some suffer from low self-esteem, interpersonal problems, and difficulties adjusting to community life (Sturmey & Didden, 2014). These problems are helped to some degree by either individual or group therapy. Large numbers of people with intellectual disability also take psychotropic medications (Sturmey & Didden, 2014). Many clinicians argue, however, that too often the medications are used simply for the purpose of making the individuals easier to manage.

HOW CAN OPPORTUNITIES FOR PERSONAL, SOCIAL, AND OCCUPATIONAL GROWTH BE INCREASED? People need to feel effective and competent in order to move forward in life. Those with intellectual disability are most likely to feel effective and competent if their communities allow them to grow and to make many of their own choices. Denmark and Sweden, where the normalization movement began, have again been leaders in this area, developing youth clubs that encourage those with intellectual disability to take risks and function independently. The Special Olympics program has also encouraged those with intellectual disability to be active in setting goals, to participate in their environment, and to interact socially with others (Glidden et al., 2011; Marks et al., 2010).

Socializing, sex, and marriage are difficult issues for people with intellectual disability and their families, but with proper training and practice, they usually can learn to use contraceptives and carry out responsible family planning (Lumley &
Scotti, 2001). National advocacy organizations and a number of clinicians currently offer guidance in these matters, and some have developed dating skills programs (AAIDD, 2013; Segal, 2008).

Some states restrict marriage for people with intellectual disability. These laws are rarely enforced, though, and in fact many people with mild ID marry. Contrary to popular myths, the marriages can be very successful. And although some may be incapable of raising children, many are quite able to do so, either on their own or with special help and community services (Sturmey, 2014, 2008; AAIDD, 2013).

Finally, adults with intellectual disability—whatever the severity—need the personal and financial rewards that come with holding a job (AAIDD, 2013; Kiernan, 2000). Many work in sheltered workshops, protected and supervised workplaces that train them at a pace and level tailored to their abilities. After training in the workshops, many with mild or moderate ID move on to hold regular jobs.

Although training programs for people with intellectual disability have improved greatly in quality over the past 35 years, there are too few of them. Consequently, most participants do not receive a complete range of educational and occupational training services. Additional programs are required so that more people with intellectual disability may achieve their full potential, as workers and as human beings.

PUTTING IT...together

Clinicians Discover Childhood and Adolescence

Early in the twentieth century, mental health professionals virtually ignored children. At best, they viewed them as small adults and treated their psychological disorders as they would adult problems (Peterson & Roberts, 1991). Today the problems and needs of young people have caught the attention of researchers and clinicians. Although all of the leading models have been used to help explain and treat these problems, the sociocultural perspective—especially the family perspective—is considered to play a special role.

Because children and adolescents have limited control over their lives, they are particularly affected by the attitudes and reactions of family members. Clinicians must therefore deal with those attitudes and reactions as they try to address the problems of the young. Treatments for conduct disorder, ADHD, intellectual disability, and other problems of childhood and adolescence typically fall short unless clinicians educate and work with the family as well.

At the same time, clinicians who work with children and adolescents have learned that a narrow focus on any one model can lead to problems. For years, autism spectrum disorder was explained exclusively by family factors, misleading theorists and therapists alike and adding to the pain of parents already devastated by their child’s disorder. In addition, in the past, the sociocultural model often led professionals wrongly to accept anxiety among young children and depression among teenagers as inevitable, given the many new experiences confronted by the former and the latter group’s preoccupation with peer approval.

The increased clinical focus on the young has also been accompanied by more attention to young people’s human and legal rights. More and more clinicians have called on government agencies to protect the rights and safety of this often powerless group. In doing so, they hope to fuel the fights for better educational resources

CLINICAL CHOICES

Now that you’ve read about disorders common among children and adolescents, try the interactive case study for this chapter. See if you are able to identify Gabriel’s symptoms and suggest a diagnosis based on his symptoms. What kind of treatment would be most effective for Gabriel? Go to LaunchPad to access Clinical Choices.
and against child abuse and neglect, sexual abuse, malnourishment, and fetal alcohol syndrome.

As the problems and, at times, mistreatment of young people receive more attention, the special needs of these individuals are becoming more visible. Thus the study and treatment of psychological disorders among children and adolescents are likely to continue at a rapid pace. Now that clinicians and public officials have “discovered” this population, they are not likely to underestimate their needs and importance again.

**SUMMING UP**

- **DISORDERS COMMON AMONG CHILDREN AND ADOLESCENTS** Emotional and behavioral problems are common in childhood and adolescence, but in addition, at least 20 percent of all children and adolescents in the United States have a diagnosable psychological disorder. A particular concern among children is that of being bullied. According to surveys, more than 25 percent of students are bullied frequently and more than 70 percent have been victims of bullying at least once. Cyberbullying is on the rise. pp. 564–565

  Anxiety disorders are particularly common among children and adolescents. This group of problems includes adultlike disorders, such as social anxiety disorder and generalized anxiety disorder, and the childhood form of separation anxiety disorder, which is characterized by excessive anxiety, often panic, whenever a child is separated from a parent. Those with separation anxiety disorder have great trouble traveling away from their family, and they often refuse to visit friends’ houses, go on errands, or attend camp or school. Many cannot even stay alone in a room and cling to their parent around the house. Some also have temper tantrums, cry, or plead to keep their parents from leaving them. pp. 565–569

  Two percent of children and 8 percent of adolescents experience depression. Depression in the young may be triggered by negative life events (particularly losses), major changes, rejection, or ongoing abuse. Childhood depression is often characterized by such symptoms as headaches, stomach pain, irritability, and a disinterest in toys and games. Although there is no difference between the rates of depression in boys and girls before the age of 13, girls are twice as likely as boys to be depressed by the age of 16. In the past two decades, there has also been an enormous increase in the number of children and adolescents who receive diagnoses of bipolar disorder. Such diagnoses are expected to decrease now that DSM-5 has added a new childhood category, disruptive mood dysregulation disorder. pp. 569–573

  Children with oppositional defiant disorder and conduct disorder exceed the normal breaking of rules and act very aggressively. Children with oppositional defiant disorder argue repeatedly with adults, ignore adult rules and requests, and feel intense anger and resentment. Those with conduct disorder, a more severe pattern, repeatedly violate the basic rights of others. Children with this disorder often are violent and cruel and may deliberately destroy property, steal, and run away. Several types of conduct disorders have been identified. Clinicians have treated children with conduct disorders by using approaches such as parent-child interaction therapy, video modeling, parent management training, treatment foster
Disorders Common Among Children and Adolescents

- NEURODEVELOPMENTAL DISORDERS Neurodevelopmental disorders are a group of disabilities in the functioning of the brain that emerge at birth or during very early childhood and affect the person’s behavior, memory, concentration, and/or ability to learn. They often have a significant impact throughout the person’s life. Attention-deficit/hyperactivity disorder, autism spectrum disorder, and intellectual disability are all neurodevelopmental disorders.

  Children who display attention-deficit/hyperactivity disorder (ADHD) attend poorly to tasks, behave overactively and impulsively, or both. Ritalin and other stimulant drugs and behavioral programs are often effective treatments. pp. 582–587

  People with autism spectrum disorder are extremely unresponsive to others, have severe communication deficits, and display very rigid and repetitive behaviors, interests, and activities. The leading explanations of this disorder point to cognitive deficits, such as failure to develop a theory of mind; and biological abnormalities, such as abnormal development of the cerebellum, as causal factors. Although no treatment totally reverses the autistic pattern, significant help is available in the form of cognitive-behavioral treatments, communication training, training and treatment for parents, and community integration. pp. 587–594

  People with intellectual disability are significantly below average in intelligence and adaptive ability. Mild ID, by far the most common level of intellectual disability, has been linked primarily to environmental factors such as unstimulating environments during a child’s early years, inadequate parent–child interactions, and insufficient learning experiences. Moderate, severe, and profound ID are caused primarily by biological factors, although people who function at these levels also are affected enormously by their family and social environment. The leading biological causes of intellectual disability are chromosomal abnormalities, metabolic disorders, prenatal problems, birth complications, and childhood diseases and injuries.

  Today intervention programs for people with intellectual disability emphasize the importance of a comfortable and stimulating residence, either the family home or a small institution or group home that follows the principles of normalization. Other important interventions include proper education, therapy for psychological problems, and programs offering training in socializing, sex, marriage, parenting, and occupational skills. One of the most intense debates in the field of education centers on whether people with intellectual disability profit more from special classes or from mainstreaming. Research has not consistently favored one approach over the other. pp. 595–603

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DSM-5 CONTROVERSY

Loss of Services?

In past editions of the DSM, people qualified for a diagnosis of Asperger’s disorder if they displayed the severe social deficits and restricted and repetitive behaviors found in autistic disorder but otherwise had normal language, adaptive, and cognitive skills. With the elimination of Asperger’s disorder from DSM-5, critics worry that some such individuals will not be diagnosed with autism spectrum disorder, the new category that subsumes Asperger’s disorder. These children might not then qualify for the special educational services previously made available for children with Asperger’s disorder.
Harry appeared to be in perfect health at age 58. . . . He worked in the municipal water treatment plant of a small city, and it was at work that the first overt signs of Harry's mental illness appeared. While responding to a minor emergency, he became confused about the correct order in which to pull the levers that controlled the flow of fluids. As a result, several thousand gallons of raw sewage were discharged into a river. Harry had been an efficient and diligent worker, so after puzzled questioning, his error was attributed to the flu and overlooked.

Several weeks later, Harry came home with a baking dish his wife had asked him to buy, having forgotten that he had brought home the identical dish two nights before. Later that week, on two successive nights, he went to pick up his daughter at her job in a restaurant, apparently forgetting that she had changed shifts and was now working days. A month after that, he quite uncharacteristically argued with . . . the phone company; he was trying to pay a bill that he had already paid three days before. . . . Months passed and Harry's wife was beside herself. She could see that his problem was worsening. Not only had she been unable to get effective help, but Harry himself was becoming resentful and sometimes suspicious of her attempts. He now insisted there was nothing wrong with him, and she would catch him narrowly watching her every movement. . . . Sometimes he became angry—sudden little storms without apparent cause. . . . More difficult for his wife was Harry's repetitiveness in conversation: He often repeated stories from the past and sometimes repeated isolated phrases and sentences from more recent exchanges. There was no context and little continuity to his choice of subjects. . . .

Two years after Harry had first allowed the sewage to escape, he was clearly a changed man. Most of the time he seemed preoccupied; he usually had a vacant smile on his face, and what little he said was so vague that it lacked meaning. . . . Gradually his wife took over getting him up, toileted, and dressed each morning. . . .

Harry's condition continued to worsen slowly. When his wife's school was in session, his daughter would stay with him some days, and neighbors were able to offer some help. But occasionally he would still manage to wander away. On those occasions he greeted everyone he met—old friends and strangers alike—with “Hi, it's so nice.” That was the extent of his conversation, although he might repeat “nice, nice, nice” over and over again. . . . When Harry left a coffee pot on a unit of the electric stove until it melted, his wife, desperate for help, took him to see another doctor. Again Harry was found to be in good health. [However] the doctor ordered a [brain scan and eventually concluded] that Harry had “Pick-Alzheimer disease.” . . . Because Harry was a veteran . . . [he qualified for] hospitalization in a . . . veterans’ hospital about 400 miles away from his home. . . .

At the hospital the nursing staff sat Harry up in a chair each day and, aided by volunteers, made sure he ate enough. Still, he lost weight and became weaker. He would weep when his wife came to see him, but he did not talk, and he gave no other sign that he recognized her. After a year, even the weeping stopped. Harry's wife could no longer bear to visit. Harry lived on until just after his sixty-fifth birthday, when he choked on a piece of bread, developed pneumonia as a consequence, and soon died.

(Heston, 1992, pp. 87–90)

Harry suffered from a form of Alzheimer's disease. This term is familiar to almost everyone in our society. It seems as if each decade is marked by a disease that everyone dreads—a diagnosis no one wants to hear because it feels
like a death sentence. Cancer used to be such a diagnosis, then AIDS. But medical science has made remarkable strides with those diseases, and patients who now develop them have reason for great hope. Alzheimer’s disease, on the other hand, remains incurable and almost untreatable, although, as you will see later, researchers are currently making enormous progress toward understanding it and reversing, or at least slowing, its march.

What makes Alzheimer’s disease particularly frightening is that it means not only eventual physical death but also, as in Harry’s case, a slow psychological death—a progressive deterioration of one’s memory and related cognitive faculties. Significant cognitive deterioration, previously called dementia, is now categorized as neurocognitive disorder. There are many types of neurocognitive disorders listed in DSM-5 (APA, 2013). Alzheimer’s disease is the most common one.

Although neurocognitive disorders are currently the most publicized and feared psychological problems among the elderly, they are hardly the only ones. A variety of psychological disorders are tied closely to later life. As with childhood disorders, some of the disorders of old age are caused primarily by pressures that are particularly likely to appear at that time of life, others by unique traumatic experiences, and still others—like neurocognitive disorders—by biological abnormalities.

**Old Age and Stress**

Old age is usually defined in our society as the years past age 65. By this account, around 43 million people in the United States are “old,” representing 13.6 percent of the total population; this is a 14-fold increase since 1900 (CDC, 2014; NCHS, 2014) (see Figure 18-1). It has also been estimated that there will be 70 million elderly people in the United States by the year 2030—more than 20 percent of the population. Not only is the overall population of the elderly on the rise, but also the number of people over 85 will double in the next 10 years. Indeed, people over 85 represent the fastest-growing segment of the population in the United States and in most countries around the world. Older women outnumber older men by almost 3 to 2 (NCHS, 2014).

Like childhood, old age brings special pressures, unique upsets, and major biological changes (Gerst-Emerson, Shovali, & Markides, 2014). People become more prone to illness and injury as they age (Nunes et al., 2014). About half of adults over 65 have two or three chronic illnesses, and 15 percent have four or more (NCHS, 2014). And at least half of elderly people have some measure of insomnia or other sleep problems (APA, 2014; Jaussent et al., 2011). In addition, elderly people are likely to be contending with the stress of loss—the loss of spouses, friends, and adult children; of former activities and roles; of hearing and vision (Heine & Browning, 2014; Shankar et al., 2011). Many lose their sense of purpose after they retire (Murayama et al., 2014). Some also have to adjust to the loss of favored pets and possessions.

The stresses of aging need not necessarily cause psychological problems (see PsychWatch on the next page). In fact, some older people, particularly those who seek social contacts and those who maintain a sense of control over their lives, use the changes that come with aging as opportunities for learning and growth (Murayama et al., 2014; Windsor & Anstey, 2011). For example, the number of elderly—often physically limited—people who use the Internet to connect with people of similar ages and interests doubled between 2000 and 2004, doubled
again between 2004 and 2007, and doubled yet again by 2010 (Oinas–Kukkonen & Mantila, 2010). For other elderly people, however, the stresses of old age do lead to psychological difficulties. Studies indicate that more than 20 percent of elderly people meet the criteria for a mental disorder and as many as half of all elderly people would benefit from some degree of mental health services, yet fewer than 20 percent actually receive them (APA, 2014; Aldwin et al., 2006). Geropsychology, the field of psychology dedicated to the mental health of elderly people, has developed almost entirely within the last four decades, and at present only 4 percent of clinicians work primarily with elderly persons (APA, 2014; Fiske et al., 2011).

The psychological problems of elderly people may be divided into two groups. One group consists of disorders that may be common among people in all age groups but are often connected to the process of aging when they occur in an elderly person. These include depressive, anxiety, and substance use disorders. The other group consists of disorders of cognition, such as delirium, mild neurocognitive disorders, and major neurocognitive disorders that result from brain abnormalities. As in Harry’s case, these brain abnormalities are most often tied to aging, but they also can sometimes occur when people are younger. Elderly people with one of these psychological problems often display other such problems. For example, many who suffer from neurocognitive disorders also deal with depression and anxiety (Lebedeva et al., 2014; Abdel-Rahman, 2012).

PsychWatch

The Oldest Old

Clinicians suggest that aging need not inevitably lead to psychological problems. Nor apparently does it always lead to physical problems.

There are currently 65,000 centenarians in the United States—people who are 100 years old or older. When researchers have studied these people—often called the “oldest old”—they have been surprised to learn that centenarians are on average more healthy, positive, clearheaded, and agile than those in their 80s and early 90s (da Rosa et al., 2014; Zhou et al., 2011; Martin et al., 2010; Perls, 2010). Although some certainly experience cognitive decline, more than half remain perfectly alert. Many of the oldest old are, in fact, still employed, sexually active, and able to enjoy the outdoors and the arts. What is their greatest fear? The fear of significant cognitive decline. According to one study, many people in their 90s and older fear the prospect of mental deterioration more than they fear death (Boeve et al., 2003).

Some scientists believe that people who live this long carry “longevity” genes that make them resistant to disabling or terminal infections (Garatachea et al., 2014; He et al., 2014; Perls, 2010). Indeed, centenarians are 20 times more likely than other elderly people to have had a relative who also lived to a very old age (D.I., 2014). Other researchers point to engaged lifestyles and “robust” personalities that help the oldest old meet life’s challenges with optimism and a sense of challenge (da Rosa et al., 2014; Martin et al., 2010, 2009). The centenarians themselves often credit a good frame of mind or regular behaviors that they have maintained for many years—for example, eating healthful food, getting regular exercise, and not smoking (D.I., 2014). Said one 96-year-old retired math and science teacher, “You can’t sit. . . . You have to keep moving” (Duenwald, 2003).
Depression in Later Life

Depression is one of the most common mental health problems of older adults. The features of depression are the same for elderly people as for younger people, including feelings of profound sadness and emptiness; low self-esteem, guilt, and pessimism; and loss of appetite and sleep disturbances. Depression is particularly common among those who have recently undergone a trauma, such as the loss of a spouse or close friend or the development of a serious physical illness (Draper, 2014; Yaka et al., 2014).

[Oscar] was an 83-year-old married man with an episode of major depressive disorder. . . . He said that about one and one-half years prior to beginning treatment, his brother had died. In the following months, two friends whom he had known since childhood died. Following these losses, he became increasingly anxious [and] grew more and more pessimistic. Reluctantly, he acknowledged, “I even thought about ending my life.” Review of his symptoms indicated that while . . . anxiety was a prominent part of his clinical picture, so was depression. . . .

During . . . treatment, [Oscar] discussed his relationship with his brother. He discussed how distraught he was to watch his brother’s physical deterioration from an extended illness. He described the scene at his brother’s deathbed and the moment “when he took his final breath.” He experienced guilt over the failure to carry out his brother’s funeral services in a manner he felt his brother would have wanted. While initially characterizing his relationship with his brother as loving and amiable, he later acknowledged that he disapproved of many ways in which his brother acted. Later in therapy, he also reviewed different facets of his past relationships with his two deceased friends. He expressed sadness that the long years had ended. . . . [Oscar’s] life had been organized around visits to his brother’s home and outings with his friends. . . . [While] his wife had encouraged him to visit with other friends and family, it became harder and harder to do so as he became more depressed.

(Hinrichsen, 1999, p. 433)

Overall, as many as 20 percent of people become depressed at some point during old age (APA, 2014; Mathys & Belgeri, 2010). The rate is highest in older women. This rate among the elderly is about the same as that among younger adults—even lower, according to some studies (Dubovsky & Dubovsky, 2011). However, it climbs much higher (as high as 32 percent) among aged people who live in nursing homes, as opposed to those in the community (Mathys & Belgeri, 2010; Seitz, Purandare, & Conn, 2010).

Several studies suggest that depression raises an elderly person’s chances of developing significant medical problems (Coffey & Coffey, 2011; Edelstein et al., 2008). For example, older depressed people with high blood pressure are almost three times as likely to suffer a stroke as older nondepressed people with the same condition. Similarly, elderly people who are depressed recover more slowly and less completely from heart attacks, hip fractures, pneumonia, and other infections and illnesses. Small wonder that among the elderly, increases in clinical depression are tied to increases in the mortality rate (Aziz & Steffens, 2013).

As you read in Chapter 9, elderly people are also more likely to commit suicide than young people, and often their suicides are related to depression (Draper, 2014;
Almeida et al., 2012). The overall rate of suicide in the United States is 12.1 per 100,000 people; among the elderly it is more than 16 per 100,000.

Like younger adults, older people who are depressed may be helped by cognitive-behavioral therapy, interpersonal therapy, antidepressant medications, or a combination of these approaches (Dolberg et al., 2014; Dubovsky & Dubovsky, 2011). Both individual and group therapy formats have been used. More than half of elderly patients with depression improve with these various treatments. It is, however, sometimes difficult for older people to use antidepressant drugs effectively and safely because the body breaks the drugs down differently in later life (Ciraulo et al., 2011; Dubovsky & Dubovsky, 2011). Moreover, among elderly people, antidepressant drugs have a higher risk of causing some cognitive impairment. Electroconvulsive therapy, applied with certain modifications, has been used for elderly people who are severely depressed and unhelped by other approaches (Coffey & Kellner, 2011).

### Anxiety Disorders in Later Life

Anxiety is also common among elderly people (APA, 2014; Lenze et al., 2011). At any given time, as many as 11 percent of elderly individuals in the United States experience at least one of the anxiety disorders. Surveys indicate that generalized anxiety disorder is particularly common, affecting up to 7 percent of all elderly people (ADAA, 2014; Holwerda et al., 2007). The prevalence of anxiety also increases throughout old age. For example, people over 85 years of age report higher rates of anxiety than those between 65 and 84 years. In fact, all of these numbers may be low, as anxiety in the elderly tends to be underreported (APA, 2014; Jeste et al., 2005). Both the elderly patient and the clinician may interpret physical symptoms of anxiety, such as heart palpitations and perspiring, as symptoms of a medical condition.

There are many things about aging that may heighten the anxiety levels of certain people (Lenze et al., 2011). Declining health, for example, has often been pointed to, and in fact, older persons who have significant
Medical illnesses or injuries report more anxiety than those who are healthy or injury-free. Researchers have not, however, been able to determine why some people who face such problems in old age become anxious while others in similar circumstances remain relatively calm (see InfoCentral on the next page).

Older adults with anxiety disorders have been treated with psychotherapy of various kinds, particularly cognitive-behavioral therapy (McKenzie & Teri, 2011; Sorocco & Lauderdale, 2011). Many also receive benzodiazepines or other anti-anxiety medications, just as younger sufferers do. And a number are treated with serotonin-enhancing antidepressant drugs. Again, however, all such drugs must be used cautiously with older people (Dubovsky & Dubovsky, 2011).

Substance Misuse in Later Life

Although alcohol use disorder and other substance use disorders are significant problems for many older persons, the prevalence of such patterns actually appears to decline after age 65, perhaps because of declining health or reduced income (Blazer & Wu, 2011; Berks & McCormick, 2008). The majority of older adults do not misuse alcohol or other substances, despite the fact that aging can sometimes be a time of considerable stress and in our society people often turn to alcohol and drugs during times of stress. Accurate data about the rate of substance abuse among older adults are difficult to gather because many elderly people do not suspect or admit that they have such a problem (Trevisan, 2014; Jeste et al., 2005).

Surveys find that 3 to 7 percent of older people, particularly men, have alcohol use disorder in a given year (Trevisan, 2014; Knight et al., 2006). Men under 30 are four times as likely as men over 60 to display a behavioral problem associated with excessive alcohol use, such as repeated falling, spells of dizziness or blacking out, secretive drinking, or social withdrawal. Older patients who are institutionalized, however, do display high rates of problem drinking. For example, alcohol problems among older people admitted to general and mental hospitals range from 15 percent to 49 percent, and estimates of alcohol-related problems among patients in nursing homes range from 10 percent to 20 percent (McConnaughy, 2014; Klein & Jess, 2002).

Researchers often distinguish between older problem drinkers who have had alcohol use disorder for many years, perhaps since their 20s, and those who do not
THE AGING POPULATION

The number and proportion of elderly people in the United States and around the world are ever-growing. This acceleration has important consequences, requiring each society to pay particular attention to aging-related issues in healthcare, housing, the economy, and other such realms. In particular, as the number and proportion of elderly people increase, so too do the number and proportion of the population who experience aging-related psychological difficulties.

Worldwide, elderly people will outnumber children for the first time in 2047.

Life expectancy is increasing

PSYCHOLOGICAL DISORDERS AMONG THE ELDERLY

Common triggers for psychological disorders among the elderly
- Physical disability
- Long-term illness
- Change of residence or environment
- Illness of a loved one
- Loss of a loved one
- Medication misuse
- Poor diet or malnutrition

Prevalence of chronic diseases among the elderly

THE ELDERLY POPULATION IS ITSELF AGING

80 years old and above

If you make it to age 80, you can expect to live an additional 8 years on average.

Centenarian Explosion

Currently, there are up to 441,000 centenarians worldwide. (Goodman, 2014; U.N., 2013)

More developed countries

Elderly people living independently

Less developed countries

Aging and Gender

The world elderly population is predominantly female.

Aging and Marriage

Elderly married men

Elderly married women

Common triggers for psychological disorders among the elderly

Major depressive disorder

Bipolar disorder

Generalized anxiety disorder

Specific phobia

Social anxiety disorder

Panic disorder

Agoraphobia

Alcohol use disorder

Schizophrenia

Delirium

Neurocognitive disorder

% of elderly population

OECD, 2013; Rice, 2014; Singh, 2013; Volkert et al., 2013

(NIA, 2011)

(Aging and Mental Health, 2013)


(Aging and Mental Health, 2013)

(Aging and Mental Health, 2013)

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start abusing alcohol until their 50s or 60s (in what is sometimes called “late-onset alcoholism”) (Trevisan, 2014; Volkson & Oslin, 2011). The latter group typically begins abusive drinking as a reaction to the negative events and pressures of growing older, such as the death of a spouse, living alone, or unwanted retirement (Trevisan, 2014; Onen et al., 2005). Alcohol use disorder in elderly people is treated much as it is in younger adults (see Chapter 12): through such interventions as detoxification, Antabuse, Alcoholics Anonymous (AA), and cognitive-behavioral therapy (APA, 2014; Knight et al., 2006).

A leading substance problem in the elderly is the misuse of prescription drugs (Cummings & Coffey, 2011; Volkson & Oslin, 2011). Most often the misuse is unintentional. In the United States, people over the age of 50 buy 77 percent of all prescription drugs and 61 percent of all over-the-counter drugs (NCHS, 2014; Statistic Brain, 2014). Elderly people—those who are over 65 years of age—receive twice as many prescriptions as younger persons (Dubovsky & Dubovsky, 2011). Around half take at least five prescription drugs and two over-the-counter drugs (NCHS, 2014). Thus their risk of confusing medications or skipping doses is high. To help address this problem, physicians and pharmacists often try to simplify medications, educate older patients about their prescriptions, clarify directions, and teach them to watch for undesired effects. However, physicians themselves are sometimes to blame in cases of prescription drug misuse, perhaps overprescribing medications for elderly patients or unwisely mixing certain medicines (Metsälä & Vaherkoski, 2014; Sleeper, 2010).

Yet another drug-related problem, apparently on the increase, is the misuse of powerful medications at nursing homes. Research suggests that antipsychotic drugs are currently being given to almost 30 percent of the total nursing home population in the United States, despite the fact that many of the residents do not display psychotic functioning (Mort, Sailor & Hintz, 2014; Lagnado, 2007). Apparently, these powerful and (for some elderly patients) dangerous drugs are often given to sedate and manage the patients (Ames et al., 2010).
Psychotic Disorders in Later Life

Elderly people have a higher rate of psychotic symptoms than younger people (Devanand, 2011; Broadway & Mintzer, 2007). Among aged people, these symptoms are usually caused by underlying medical conditions such as neurocognitive disorders, the disorders of cognition that you will read about in the next section. Some elderly people, though, suffer from schizophrenia or delusional disorder.

Actually, schizophrenia is less common in older people than in younger ones. In fact, many people with schizophrenia find that their symptoms lessen in later life (Dickerson et al., 2014; Meeks & Jeste, 2008). Improvement can occur in people who have had schizophrenia for 30 or more years, particularly in such areas as social skills and work capacity, as we are reminded by the remarkable late-life improvement of the Nobel Prize recipient John Nash, the subject of the book and movie *A Beautiful Mind*.

It is uncommon for new cases of schizophrenia to emerge in late life (Devanand, 2011). Thus some of the elderly people with schizophrenia began receiving antipsychotic drugs and psychotherapeutic interventions many years earlier in life and are continuing to do so in old age (Cummings & Coffey, 2011). Once again, though, antipsychotic drugs may pose more dangers (cognitive impairment, stroke, seizures) for elderly people than younger people, given the metabolism changes in older people (Dubovsky & Dubovsky, 2011). In contrast, other elderly people with schizophrenia have been untreated for years and continue to be untreated when they are elderly, winding up in nursing homes, in run-down apartments, homeless, or in jail. Among those whose schizophrenia does emerge for the first time during old age, women outnumber men by at least 2 to 1 (Ames et al., 2010).

Another kind of psychotic disorder found among the elderly is delusional disorder, in which people develop beliefs that are false but not bizarre (Cummings & Coffey, 2011; Devanand, 2011). This disorder is rare in most age groups—around 2 of every 1,000 persons—but its prevalence appears to increase in the elderly population (APA, 2013; Chae & Kang, 2006). Older people with a delusional disorder may develop deeply held suspicions of persecution; they believe that other people—often family members, doctors, or friends—are conspiring against, cheating, spying on, or maligning them. They may become irritable, angry, or depressed or pursue legal action because of such ideas. It is not clear why this disorder increases among elderly people, but some clinicians suggest that the rise is related to the deficiencies in hearing, the social isolation, the greater stress, or the heightened poverty that many elderly persons contend with.

Disorders of Cognition

Most of us worry from time to time that we are losing our memory and other mental abilities (Glauberman, 2014). You rush out the door without your keys, you meet a familiar person and cannot remember her name, or you forget that you have seen a particular film. Actually such mishaps are a common and quite normal feature of stress or of aging. As people move through middle age, these memory difficulties and lapses of attention increase, and they may occur regularly by the age of 60 or 70 (see MindTech on the next page). Sometimes, however, people have memory and other cognitive changes that are far more extensive and problematic.

In Chapter 6 you saw that problems in memory and related cognitive processes can occur without biological causes, in the form of...
dissociative disorders. More often, though, cognitive problems do have organic roots, particularly when they appear late in life. The leading such disorders among the elderly are delirium, major neurocognitive disorder, and mild neurocognitive disorder.

MindTech

Remember to Tweet; Tweet to Remember

Social media sites such as Facebook and Twitter, and the Internet in general, are often thought of as the province of the young. However, elderly people are going online and joining social networking sites at increasing rates (Pew Internet, 2014). Some 45 percent of all elderly people online now use Facebook (up from 35 percent a year ago); 9 percent use Pinterest; 5 percent tweet, and 1 percent use Instagram—all sizable increases from last year.

Of course it's interesting—and perhaps inevitable—that so many elderly people are joining social networks in our digital world. But social networking among the elderly is much more than just an interesting statistic, it may be downright therapeutic. Several recent studies have found that online activity actually helps elderly people maintain and possibly improve their cognitive skills, coping skills, social pleasures, and emotions (Piatt, 2013; Szalavitz, 2013). Clinical theorists have offered several possible explanations for this phenomenon. It may be, for example, that the cognitive stimulation derived from Internet activity activates memory and other cognitive faculties or that the engagement with the world and family provided by the Internet through social networking directly satisfies social and emotional needs. Whatever the reason, more and more studies indicate that elderly people who are wired often function and feel better that those who do not pursue online activities.

One study in Italy, for example, focused on residents from two elder-care homes in the towns of Cremona and Brescia (Manuel-Logan, 2011). Some of the elderly residents were provided with laptops, given online tutorials, and set up with accounts on Facebook, Twitter, and other social networking sites. It turned out that, compared with other elderly residents at the facilities, those who used social networking displayed better memory and attention span and were generally “sharper” and more alert.

Similarly, in a 2013 study, researchers at the University of Arizona recruited 42 adults, aged 68 to 91, and trained 14 of them on Facebook (Piatt, 2013; Wohltmann, 2013). The study found a 25 percent improvement in the cognitive performances of the 14 participants, including improvements in their mental “updating” skills—the ability to quickly add or delete material from their working memory.

Many elderly people resist the Internet and social networking, saying things like “It's not for me,” “It intimidates me,” or “You can’t teach an old dog new tricks.” However, this growing body of research suggests that they may want to embrace social networking and the Internet for better functioning and for better mental health.
Delirium

**Delirium** is a major disturbance in attention and orientation to the environment (see Table 18-1). As the person's focus becomes less clear, he or she has great difficulty concentrating and thinking in an organized way, leading to misinterpretations, illusions, and on occasion, hallucinations (Lawlor & Bush, 2014; Eeles & Bhat, 2010). Sufferers may believe that it is morning in the middle of the night or that they are home when actually they are in a hospital room.

This state of massive confusion typically develops over a short period of time, usually hours or days (APA, 2013). Delirium may occur in any age group, including children, but is most common in elderly people. Fewer than 0.5 percent of the nonelderly population experience delirium, compared with 1 percent of people over 55 years of age and 14 percent of those over 85 years of age (Tune & DeWitt, 2011). When elderly people enter a hospital to be treated for a general medical condition, 1 in 10 of them shows the symptoms of delirium. At least another 10 percent develop delirium during their stay in the hospital (Bagnall & Faiz, 2014; Inouye, 2006; Inouye et al., 2003). Around 17 percent of patients admitted for surgery develop delirium (de Castro et al., 2014). That number rises to 23 percent among those admitted suddenly for acute surgery. Sixty percent of nursing home residents older than 75 years of age have some delirium, compared with 35 percent of similar people living independently with the assistance of home health services (Tune & DeWitt, 2011).

Fever, certain diseases and infections, poor nutrition, head injuries, strokes, and stress (including the trauma of surgery) may all cause delirium (Lawlor & Bush, 2014; Eeles & Bhat, 2010; Wetterling, 2005). So may intoxication by certain substances, such as prescription drugs. Partly because older people face so many of these problems, they are more likely than younger ones to experience delirium. If a clinician accurately identifies delirium, it can often be easy to correct—by treating the underlying infection, for example, or changing the patient’s drug prescription. However, the syndrome typically fails to be recognized for what it is (Lawlor & Bush, 2014; Ames et al., 2010). One pioneering study on a medical ward, for example, found that admission doctors detected only 1 of 15 consecutive cases of delirium (Cameron et al., 1987). Incorrect diagnoses of this kind may contribute to a high death rate for older people with delirium (Dasgupta & Brymer, 2014; Trzepacz & Meagher, 2008).

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### Alzheimer’s Disease and Other Neurocognitive Disorders

People with a **neurocognitive disorder** experience a significant decline in at least one (often more than one) area of cognitive functioning, such as memory and learning, attention, visual perception, planning and decision making, language ability, or social awareness (APA, 2013). Those who have certain types of neurocognitive disorders may also undergo personality changes—they may behave inappropriately, for example—and their symptoms may worsen steadily.

If the person’s cognitive decline is substantial and interferes significantly with his or her ability to be independent, a diagnosis of **major neurocognitive disorder** is in order. If the decline is modest and does not interfere with independent functioning, the appropriate diagnosis is **mild neurocognitive disorder** (see Table 18-2).

There are currently 44 million people with neurocognitive disorders around the world, with 4.6 million new cases emerging each year (Hollingworth et al., 2011). The number of cases is expected to reach 135 million by 2050 unless a cure is found (Sifferlin, 2013).
The occurrence of neurocognitive disorders is closely related to age (see Figure 18-2). Among people 65 years of age, the prevalence is around 1 to 2 percent, increasing to as much as 50 percent among those over the age of 85 (Zhao et al., 2014; Apostolova & Cummings, 2008).

As you read earlier, Alzheimer’s disease is the most common type of neurocognitive disorder, accounting for around two-thirds of all cases (Burke, 2011; Farlow, 2010). Around 5 million people in the United States currently have this disease, a number that is expected to triple by the year 2050 (Wesson et al., 2011). Alzheimer’s disease sometimes appears in middle age (early onset), but in the vast majority of cases it occurs after the age of 65 (late onset), and its prevalence increases markedly among people in their late 70s and early 80s (Zhao et al., 2014). At least 17 percent of those with Alzheimer’s also experience major depressive disorder (Chi et al., 2014; Mathys & Belgeri, 2010).

Alzheimer’s disease is a gradually progressive disease in which memory impairment is the most prominent cognitive dysfunction (APA, 2013). Technically, sufferers receive a DSM-5 diagnosis of mild neurocognitive disorder due to Alzheimer’s disease during the early and mild stages of the syndrome and major neurocognitive disorder due to Alzheimer’s disease during the later, more severe stages (see Table 18-3).

Alzheimer’s disease is named after Alois Alzheimer, the German physician who formally identified it in 1907. Alzheimer first became aware of the syndrome in 1901 when a new patient, Auguste D., was placed under his care:

On November 25, 1901, a . . . woman with no personal or family history of mental illness was admitted to a psychiatric hospital in Frankfurt, Germany, by her husband, who could no longer ignore or hide quirks and lapses that had overtaken her in recent months. First, there were unexplainable bursts of anger, and then a strange series of memory problems. She became increasingly unable to locate things in her own home and began to make surprising mistakes in the kitchen. By the time she arrived at Städtische Irrenanstalt, the Frankfurt Hospital for the Mentally Ill and Epileptics, her condition was as severe as it was curious. The attending doctor, senior physician Alois Alzheimer, began the new file with these notes. . . .

She sits on the bed with a helpless expression.

“What is your name?”
Auguste.

“Last name?”
Auguste.

“What is your husband’s name?”
Auguste, I think.

“How long have you been here?”
(She seems to be trying to remember.)
Three weeks.

It was her second day in the hospital. Dr. Alzheimer, a thirty-seven-year-old neuropathologist and clinician, . . . observed in his new patient a remarkable cluster of symptoms: severe disorientation, reduced comprehension, aphasia (language impairment), paranoia, hallucinations, and a short-term memory so incapacitated that when he spoke her full-name, Frau Auguste D____, and asked her to write it down, the patient got only as far as “Frau” before needing the doctor to repeat the rest.

He spoke her name again. She wrote “Augu” and again stopped.

When Alzheimer prompted her a third time, she was able to write her entire first name and the initial “D” before finally giving up, telling the doctor, “I have lost myself.”

Her condition did not improve. It became apparent that there was nothing that anyone at this or any other hospital could do for Frau D. except to insure her safety.
and try to keep her as clean and comfortable as possible for the rest of her days. Over the next four and a half years, she became increasingly disoriented, delusional, and incoherent. She was often hostile.

“Her gestures showed a complete helplessness,” Alzheimer later noted in a published report. “She was disoriented as to time and place. From time to time she would state that she did not understand anything, that she felt confused and totally lost. . . . Often she would scream for hours and hours in a horrible voice.”

By November 1904, three and a half years into her illness, Auguste D. was bedridden, incontinent, and largely immobile. . . . Notes from October 1905 indicate that she had become permanently curled up in a fetal position with her knees drawn up to her chest, muttering but unable to speak, and requiring assistance to be fed. (Shenk, 2001, pp. 12–14)

Although some people with Alzheimer’s disease may survive for as many as 20 years, the time between onset and death is typically 8 to 10 years (Advokat et al., 2014; Soukup, 2006). It usually begins with mild memory problems, lapses of attention, and difficulties in language and communication (Farlow, 2010). As symptoms worsen, the person has trouble completing complicated tasks or remembering important appointments. Eventually sufferers also have difficulty with simple tasks, forget distant memories, and have changes in personality that often become very noticeable. For example, a gentle man may become uncharacteristically aggressive.

People with Alzheimer’s disease may at first deny that they have a problem, but they soon become anxious or depressed about their state of mind; many also become agitated. A woman from Virginia describes her memory loss as the disease progresses:

> Very often I wander around looking for something which I know is very pertinent, but then after a while I forget about what it is I was looking for. . . . Once the idea is lost, everything is lost and I have nothing to do but wander around trying to figure out what it was that was so important earlier. (Shenk, 2001, p. 43)

As the neurocognitive symptoms intensify, people with Alzheimer’s disease show less and less awareness of their limitations. They may withdraw from others during the late stages of the disorder, become more confused about time and place, wander, and show very poor judgment. Eventually they become fully dependent on other people. They may lose almost all knowledge of the past and fail to recognize the faces of even close relatives. They also become increasingly uncomfortable at night and take frequent naps during the day (Ames et al., 2010; Edelstein et al., 2008). During the late phases of the disorder, they require constant care.

People with Alzheimer’s usually remain in fairly good health until the later stages of the disease. As their mental functioning declines, however, they become less active and spend much of their time just sitting or lying in bed. This makes them prone to develop illnesses such as pneumonia, which can result in death (Park et al., 2014; Ames et al., 2010). Alzheimer’s disease is currently responsible for close to 84,000 deaths each year in the United States, a number that is 40 percent higher than it was a decade ago (NCHS, 2014). It is the sixth leading cause of death in the country, the third leading cause among the elderly (CDC, 2013, 2010).

Alzheimer’s disease The most common type of neurocognitive disorder, usually occurring after the age of 65, marked most prominently by memory impairment.
In most cases, Alzheimer’s disease can be diagnosed with certainty only after death, when structural changes in the person’s brain, such as excessive senile plaques and neurofibrillary tangles, can be fully examined. **Senile plaques** are sphere-shaped deposits of a small molecule known as the beta-amyloid protein that form in the spaces between cells in the hippocampus, cerebral cortex, and certain other brain regions, as well as in some nearby blood vessels. The formation of plaques is a normal part of aging, but it is exceptionally high in people with Alzheimer’s disease (Zhao et al., 2014; Selkoe, 2011, 2000, 1992). **Neurofibrillary tangles**, twisted protein fibers found within the cells of the hippocampus and certain other brain areas, also occur in all people as they age, but again people with Alzheimer’s disease form an extraordinary number of them.

Scientists do not fully understand what role excessive numbers of plaques and tangles play in Alzheimer’s disease, but they suspect they are very important. Today’s leading explanations for this disease center on these plaques and tangles and on the various factors that may contribute to their formation.

**What Are the Genetic Causes of Alzheimer’s Disease?** To understand the genetic theories of Alzheimer’s disease, we must first appreciate the nature and role of proteins. Proteins are fundamental components of all living cells, including, of course, brain cells. They are large molecules made up of chains of carbon, hydrogen, oxygen, nitrogen, and sulfur. There are many different kinds of proteins, each with a different function. Collectively, they are essential for the proper functioning of an organism.

The plaques and tangles that are so plentiful in the brains of Alzheimer’s patients seem to occur when two important proteins start acting in a frenzied manner. Abnormal activity by the beta-amyloid protein is, as we noted above, key to the repeated formation of plaques (Zhao et al., 2014; Fändrich et al., 2011). Abnormal activity by another protein, tau, is key to the excessive formation of tangles (Zhao et al., 2014; Obulesu et al., 2011). One of the leading theories holds that the many plaques formed by beta-amyloid proteins cause tau proteins in the brain to start breaking down, resulting in tangles and the death of many neurons (Hughes, 2011; Obulescu et al., 2011).

What causes this chain of events? Genetic factors are a major culprit. However, the genetic factors that are responsible differ for the early-onset and late-onset types of Alzheimer’s disease.

**EARLY-ONSET ALZHEIMER’S DISEASE** As we noted earlier, Alzheimer’s disease occurs before the age of 65 in relatively few cases. Such cases typically run in families. Researchers have learned that this form of Alzheimer’s disease can be caused by abnormalities in the genes responsible for the production of two proteins—the beta-amyloid precursor protein (beta-APP) and the presenilin protein. Apparently, some families transmit mutations, or abnormal forms, of one or both of these genes—mutations that lead ultimately to abnormal beta-amyloid protein buildups and, in turn, to plaque formations (Zhao et al., 2014; Wesson et al., 2011).

**LATE-ONSET ALZHEIMER’S DISEASE** The vast majority of Alzheimer cases develop after the age of 65. Such cases typically do not run in families and are often called sporadic Alzheimer’s disease. This late-onset form of the disease appears to result from a combination of genetic, environmental, and lifestyle factors. However, the genetic factor at play in late-onset Alzheimer’s disease is different from those involved in early-onset Alzheimer’s disease.

A gene called the apolipoprotein E (ApoE) gene, located on chromosome 19, is normally responsible for the production of a protein that helps carry various fats into the bloodstream. This gene comes in various forms. About 30 percent of the population inherit the form called ApoE-4, and those people may be particularly
vulnerable to the development of Alzheimer’s disease (Shu et al., 2014; Hollingworth et al., 2011). Apparently, the ApoE-4 gene form promotes the excessive formation of beta-amyloid proteins, helping to spur the formation of plaques and, in turn, the breakdown of the tau protein, the formation of numerous tangles, the death of many neurons, and, ultimately, the onset of Alzheimer’s disease.

Although the ApoE-4 gene form appears to be a major contributor to the development of Alzheimer’s disease, it is important to recognize that not everyone with this form of the gene develops the disease. Other factors—perhaps environmental, lifestyle, or stress-related—may also have a significant impact in the development of late-onset Alzheimer’s disease (Nation et al., 2011; Tran et al., 2011).

**AN ALTERNATIVE GENETIC THEORY OF ALZHEIMER’S DISEASE**

As you have just read, the leading genetic theories of Alzheimer’s disease point to gene forms, such as ApoE-4, that produce abnormal beta-amyloid proteins buildups and plaque formations, which, in turn, lead to abnormal activity of tau proteins and the formation of numerous tangles. In recent years, however, some researchers have come to believe that abnormal tau protein activity is not always the result of these abnormal beta-amyloid protein buildups (Peterson et al., 2014; Karch, Jeng, & Goate, 2013). These researchers have identified other gene forms in Alzheimer’s patients that seem to be directly associated with tau protein abnormalities and tangle formations. Thus it may be that there are multiple genetic causes for the formation of numerous tangle formations and the onset of Alzheimer’s disease: (1) gene forms that start the ball rolling by first promoting beta-amyloid protein formations and plaques, and (2) gene forms that more directly promote tau protein abnormalities and tangle formations.

**How Does Brain Structure Relate to Alzheimer’s Disease?**

We know that genetic factors may predispose people to Alzheimer’s disease, but we still need to know what abnormalities in brain structure eventually result from such factors—that is, which brain structure abnormalities help promote Alzheimer’s disease. Researchers have identified a number of possibilities. To understand these, we need first to appreciate some basic information about the operation and biology of memory.

The human brain has two memory systems that work together to help us learn and recall. **Short-term memory**, or **working memory**, gathers new information. **Long-term memory** is the accumulation of information that we have stored over the years, information that first made its way through the short-term memory system. The information held in short-term memory must be transformed, or consolidated, into long-term memory if we are to hold on to it. Remembering information that has been stored in long-term memory is called retrieval, which is described as going into one’s long-term memory to bring it out for use again in short-term, or working, memory.

Certain **brain structures** seem to be especially important in memory. Among the most important structures in short-term memory is the **prefrontal cortex**, located just behind the forehead. When animals or humans acquire new information, their prefrontal cortex becomes more active (Jiang et al., 2000), enabling them to hold information temporarily and to continue working with the information as long as it is needed. Among the most important structures in transforming short-term memory into long-term memory are the **temporal lobes** (which include the **hippocampus** and **amygdala**) and the **diencephalon** (which includes the **mammillary bodies**, **thalamus**,
and hypothalamus). Research indicates that Alzheimer’s disease involves damage to or improper functioning of one or more of these brain areas (van der Flier et al., 2005; Caine et al., 2001) (see Figure 18-3).

**What Biochemical Changes in the Brain Relate to Alzheimer’s Disease?** Memory researchers have also identified biochemical changes that occur in cells as memories form. In order for new information to be acquired and stored, certain proteins must be produced in key brain cells. Several chemicals—for example, acetylcholine, glutamate, RNA (ribonucleic acid), and calcium—are responsible for the production of the memory-linked proteins. If the activity of any of these chemicals is disturbed, the proper production of proteins may be prevented and the formation of memories interrupted (Canas et al., 2014; Wu et al., 2008). For example, by blocking the activity of glutamate, animal researchers have prevented the operation of short-term memory. Similarly, by blocking the cellular production of RNA or of calcium, they have interrupted the formation of long-term memories (Berridge, 2011).

Some research suggests that abnormal activity by these various chemicals may contribute to the symptoms of Alzheimer’s disease. Studies have found, for example, that acetylcholine and glutamate are in low supply, or at least function differently, in the brains of Alzheimer’s victims, and other studies suggest that Alzheimer’s victims have an imbalance in the breakdown of calcium (Canas et al., 2014).

**Other Explanations of Alzheimer’s Disease** Several lines of research suggest that certain substances found in nature may act as toxins, damage the brain, and contribute to the development of Alzheimer’s disease. For example, researchers
have detected high levels of zinc in the brains of some Alzheimer’s patients (Xu et al., 2014; Schrag et al., 2011). This finding has gained particular attention because in some animal studies zinc has been observed to trigger a clumping of the beta-amyloid protein, similar to the plaques found in the brains of Alzheimer’s patients.

Another line of research suggests that the environmental toxin lead may contribute to the development of Alzheimer’s disease (Lee & Freeman, 2014; Ritter, 2008). Lead was phased out of gasoline products between 1976 and 1991, leading to an 80 percent drop of lead levels in people’s blood. However, many of today’s elderly were exposed to high levels of lead in the 1960s and 1970s, regularly inhaling air pollution from vehicle exhausts—an exposure that might have damaged or destroyed many of their neurons. Several studies suggest that this earlier absorption of lead and other pollutants may be having a negative effect on the current cognitive functioning of these individuals (Richardson et al., 2014; Ritter, 2008; Hu et al., 2005).

One study, for example, examined elderly people and scanned their shinbones for lead (Schwartz & Stewart, 2007). Interpreting shinbone levels of lead as indicators of the person’s lifetime exposures to lead, the researchers found that the higher a person’s lifetime lead exposure, the more poorly he or she performed on memory and language tests. An important question here is: Why would cognitive dysfunction first appear decades after exposure to the toxin? Medical researcher Philip Landrigan (2007) suggests, “If a substance destroys brain cells in early life, the brain may cope by drawing on its reserve capacity until [eventually] it loses more cells with aging. . . . Only then would symptoms like forgetfulness or tremors begin.”

Two other explanations for Alzheimer’s disease have also been offered. One is the autoimmune theory. On the basis of certain irregularities found in the immune systems of people with Alzheimer’s disease, several researchers have speculated that changes in aging brain cells may trigger an autoimmune response (that is, a mistaken attack by the immune system against itself) that helps lead to the disease (Marchese et al., 2014; Zipp & Aktas, 2006). The other explanation is a viral theory. Because Alzheimer’s disease resembles Creutzfeldt-Jakob disease, another type of neurocognitive disorder that is known to be caused by a slow-acting virus, some researchers propose that a similar virus may cause Alzheimer’s disease (Head, 2013; Doty, 2008; Prusiner, 1991). To date, however, no such virus has been detected in the brains of Alzheimer’s victims.

Assessing and Predicting Alzheimer’s Disease

As you read earlier, most cases of Alzheimer’s disease can be diagnosed with absolute certainty only after death, when an autopsy is performed. However, brain scans, which reveal abnormalities in the living brain, are now used commonly as assessment tools and often provide clinicians with considerable confidence in their diagnoses of Alzheimer’s disease (Rabin, 2013; Yamasaki et al., 2012; Berti et al., 2011). In addition, several research teams currently are trying to develop tools that can identify those people who are likely to develop Alzheimer’s disease and other types of neurocognitive disorders.

One promising line of work, for example, comes from the laboratory of neuroscientist Lisa Mosconi and her colleagues (Mosconi, 2013; Mosconi et al., 2010, 2008; de Leon et al., 2007). Using a special kind of PET scan, this research team examined activity in certain parts of the hippocampus in dozens of elderly research participants and then conducted follow-up studies of them for up to 24 years. (Recall that the hippocampus plays a major role in memory.) Eventually, 43 percent of
the study’s participants developed either a mild or major neurocognitive disorder due to Alzheimer’s disease. The researchers found that those who developed such cognitive impairments had displayed lower hippocampus activity on their initial PET scans than the participants who remained healthy. Overall, the PET scans, administered years before the onset of symptoms, predicted mild neurocognitive impairment with an accuracy rate of 71 percent and major neurocognitive impairment with an accuracy rate of 83 percent.

As you will see shortly, the most effective interventions for Alzheimer’s disease and other types of neurocognitive disorders are those that help prevent these problems, or at least ones that are applied early. Clearly, then, it is essential to have tools that identify the disorders as early as possible, preferably years before the onset of symptoms (Rabin, 2013). That is what makes the research advances in assessment and diagnosis so exciting.

Other Types of Neurocognitive Disorders There are a number of neurocognitive disorders in addition to Alzheimer’s disease (APA, 2013) (see PsychWatch on pages 626–627). Vascular neurocognitive disorder, for example, follows a cerebrovascular accident, or stroke, during which blood flow to specific areas of the brain was cut off, thus damaging the areas (Jia et al., 2014; Ames et al., 2010). In many cases, the patient may not even be aware of the stroke (Moorhouse & Rockwood, 2010). Like Alzheimer’s disease, this disorder is progressive, but its symptoms begin suddenly rather than gradually. Moreover, the person’s cognitive functioning may continue to be normal in areas of the brain that have not been affected by the stroke, in contrast to the broad cognitive deficiencies usually displayed by Alzheimer’s patients. Some people have both Alzheimer’s disease and vascular neurocognitive disorder.

Frontotemporal neurocognitive disorder, also known as Pick’s disease, is a rare disorder that affects the frontal and temporal lobes. It has a clinical picture similar to Alzheimer’s disease, but the two diseases can be distinguished at autopsy.

Neurocognitive disorder due to prion disease, also called Creutzfeldt-Jakob disease, has symptoms that include spasms of the body. As we observed earlier, this disorder is caused by a slow-acting virus that may live in the body for years before the disease develops. Once launched, however, the disease has a rapid course.

Neurocognitive disorder due to Huntington’s disease is an inherited progressive disease in which memory problems, along with personality changes and mood difficulties, worsen over time. People with Huntington’s have movement problems, too, such as severe twitching and spasms. Children of people with Huntington’s disease have a 50 percent chance of developing it.

Parkinson’s disease, the slowly progressive neurological disorder marked by tremors, rigidity, and unsteadiness, can result in neurocognitive disorder due to Parkinson’s disease, particularly in older people or those whose cases are advanced.

Yet other neurocognitive disorders may be caused by HIV infections, traumatic brain injury, substance abuse, or various medical conditions such as meningitis or advanced syphilis.

What Treatments Are Currently Available for Alzheimer’s Disease and Other Neurocognitive Disorders? Treatments for the cognitive features of Alzheimer’s disease and most other types of neurocognitive disorders have been at best modestly helpful. A number of approaches have been
applied, including drug therapy, cognitive techniques, behavioral interventions, support for caregivers, and sociocultural approaches.

**Drug Treatment** The drugs currently prescribed for Alzheimer’s patients are designed to affect acetylcholine and glutamate, the neurotransmitters that play important roles in memory. Such drugs include **tacrine** (trade name Cognex), **donepezil** (Aricept), **rivastigmine** (Exelon), **galantamine** (Reminyl), and **memantine** (Namenda). The short-term memory and reasoning ability of some Alzheimer’s patients who take these drugs improve slightly, as do their use of language and their ability to cope under pressure (Jessen, 2014; Wang et al., 2014). Although the benefits of the drugs are limited and the risk of harmful effects (particularly those from tacrine) is sometimes high, these drugs have been approved by the FDA. Clinicians believe that they may be of greatest use to people in the early, mild stage of Alzheimer’s disease. Another approach, taking **vitamin E**, either alone or in combination with one of these drugs, also seems to help slow down further cognitive decline among people in the mild stage of Alzheimer’s disease (Dysken et al., 2014, 2009). Numerous other possible drug treatments are being investigated currently (Medina & Avila, 2014).

The drugs just discussed are each prescribed after a person has developed Alzheimer’s disease. In contrast, studies suggest that certain substances now available on the marketplace for other kinds of problems may help prevent or delay the onset of Alzheimer’s disease. For example, some studies have found that women who took **estrogen**, the female sex hormone, for years after menopause cut their risk of developing Alzheimer’s disease in half (Li, Cui, & Shen, 2014; Kawas et al., 1997). Other studies have suggested that the long-term use of **nonsteroidal anti-inflammatory drugs** such as ibuprofen and naprosyn (drugs found in Advil, Motrin, Nuprin, and other pain relievers) may help reduce the risk of Alzheimer’s disease, although recent findings on this possibility have been mixed (Advokat et al., 2014).

**Cognitive Techniques** Cognitive treatments have been used in cases of Alzheimer’s disease, with some temporary success. In Japan, for example, a number of people with the disease meet regularly in classes, performing simple calculations and reading essays and novels aloud. Proponents of this approach claim that it serves as a mental exercise that helps rehabilitate those parts of the brain linked...
Staying in touch

This Alzheimer’s sufferer wears a tracking bracelet that enables his family members to locate him quickly if he wanders from home. This wrist device is less controversial than microchip implants or other invasive tracking techniques that have been proposed.

PsychWatch

Damaging the Brain

A leading cause of neurocognitive disorders is damage to the brain—including damage brought about by drugs or head injuries. Among other effects, brain damage may produce significant amnesia.

Retrograde amnesia is an inability to remember events from the past. Anterograde amnesia is an ongoing inability to form new memories. In anterograde amnesia, it is as though information from short-term memory can no longer cross over into long-term memory. In severe cases, new acquaintances are forgotten almost immediately, and problems solved one day must be tackled again the next. People may not remember anything that has happened since their brain damage first occurred. Nevertheless, sufferers may continue to possess all of their earlier verbal abilities and many problem-solving skills, and their IQ is not changed.

Korsakoff’s Syndrome

Fred, a 69-year-old man, was admitted to a mental hospital in a state of confusion, the result of Korsakoff’s syndrome, also known as substance-induced neurocognitive disorder, which causes people to keep forgetting newly learned information (anterograde amnesia):

Fred . . . had a history of many years of heavy drinking, although he denied drinking during the past several years. When seen in the admitting ward, the patient was neatly dressed, but there was some deterioration of his personal habits. Although pleasant and sociable with the interviewer and ward personnel, he was definitely confused. He wandered about the ward, investigating objects and trying on other people’s clothing. He talked freely, though his speech tended to be rambling and at times incoherent. Most of his spontaneous conversation centered on himself, and there were a number of hypochondriacal complaints. Fred was disoriented for time and place, although he was able to give his correct address, said his age was 91, and was unable to name the day, the month, or the year. He did not know where he was, although he said he was sent here by his landlord because he had been drinking. . . . [Fred] showed the characteristic symptom picture of Korsakoff’s syndrome, with disorientation, confusion, and a strong tendency toward confabulation. When asked where he was, he said he was in a brewery. He gave the name of the brewery, but when asked the same question a few minutes later, he named another brewery. Similarly, he said that he knew the examiner, called him by an incorrect name, and a little later changed the name again. When leaving the examining room, he used still another name when he said politely, “Goodbye, Mr. Wolf!”

(KISKER, 1977, P. 308)

As you’ll recall from Chapter 12, approximately 5 percent of people with chronic alcoholism develop Korsakoff’s syndrome. A combination of excessive drinking and improper diet produce a deficiency of vitamin B (thiamine), which leads to damage in key memory regions of the brain (Nilsson & Sonne, 2013; Hirstein, 2011). People with Korsakoff’s syndrome primarily lose memories of factual knowledge but maintain their intellectual and language skills. Thus, like Fred, many confabulate—repeatedly: they use their general intellect to make up elaborate stories and lies in an effort to replace the memories they keep losing.

Head Injuries and Brain Surgery

Both head injuries and brain surgery can cause significant memory problems (Sinha, Nehra, & Sharma, 2014; Zeckey et al., 2011). Either may destroy memory-related brain structures.

Each year, around 1.7 million people in the United States sustain a head injury (CDC, 2014). Television shows and movies often portray bumps on the head as a quick and easy way to lose one’s memory. In fact, single episodes of mild head injuries, such as a concussion that does not result in coma or a period of unconsciousness, seem unlikely
of all ages and states of health (Szabo et al., 2011). There is evidence that regular physical exercise may also help reduce the risk of developing Alzheimer’s disease and other types of neurocognitive disorders (Borisovskaya, Pascuali, & Borson, 2014; Nation et al., 2011). Correspondingly, physical exercise is often a part of treatment programs for people with the disorders.

Behavioral interventions of a different kind have been used to help improve specific symptoms displayed by Alzheimer’s patients. The approaches typically focus on changing everyday patient behaviors that are stressful for the family, such as wandering at night, loss of bladder control, demands for attention, and inadequate personal care (Lancioni et al., 2011; Lindsey, 2011; Knight et al., 2006). The behavioral therapists use a combination of role-playing exercises, modeling, and practice to teach family members how and when to use reinforcement in order to shape more positive behaviors.

**SUPPORT FOR CAREGIVERS** Caregiving can take a heavy toll on the close relatives of people with Alzheimer’s disease and other types of neurocognitive disorders (Kang et al., 2014; Llanque et al., 2014). Almost 90 percent of all people with Alzheimer’s disease are cared for by their relatives (Alzheimer’s Association, 2014, 2007). It is
doing much memory loss. In contrast, almost half of all severe head injuries or repeated mild head injuries can cause some permanent learning and memory problems, both anterograde and retrograde (Ng et al., 2014). In everyday life, the leading causes of severe brain injuries are car accidents and falls (CDC, 2014).

Given these dangers, the public has become very concerned by the recent release of information that tens of thousands of U.S. soldiers who fought in Afghanistan and Iraq have suffered head injuries from exposure to blasts during combat. Estimates are that at least 20,000, and perhaps as many as 320,000, combat veterans have sustained such injuries (Welberg, 2012; RAND, 2008; Marchione, 2007). While it may be that most such brain injuries are mild, clinical practitioners and researchers caution that they do not yet know how severe or long lasting these injuries will turn out to be.

Brain surgery may create more specific memory problems. The most famous case of memory loss as a result of brain surgery was that of a man called H.M. by researchers (Milner, 2010). In 1953, surgeons decided to treat H.M.’s brain seizure disorder, or epilepsy, by removing parts of both of his temporal lobes, along with the amygdala and hippocampus. At that time, the involvement of these brain areas in the formation of memories was not known. (Today temporal lobe surgery is usually limited to either the right or left side of the brain.) From that day forward, H.M. experienced severe anterograde amnesia. For the remaining half-century of his life, he was unable to recognize or recall anyone he met after his operation.

**Part of the game?** National Football League great John Mackey shows off his Super Bowl V and Hall of Fame rings. Mackey died at age 69 in 2011 of frontotemporal neurocognitive disorder, a condition marked by extreme confusion and the need for full-time assistance. Many cases of neurocognitive disorder, like Mackey’s, are apparently the result of repeated sports injuries to the head, a link implicitly acknowledged by the NFL with their implementation of the “88 Plan” (named after Mackey’s jersey number), which helps pay the cost of nursing home care and day care for football veterans with such problems.
It is very painful to witness mental and physical decline in someone you love. 

I have really struggled with the honesty issue. What do you say to someone who sits on their bed and says that she has never stayed out overnight without letting her parents know where she is? What do you say to someone who thinks she is a teacher and if she doesn’t get home and into her classroom there will be a whole class of children left unattended? What do you say to someone who thinks she has no money to pay bills and will lose everything she owns if she doesn’t get home to a job that you know she has been retired from for years? I couldn’t find any reason for telling her over and over that she has a horrible terrible degenerating disease that was making her feel the way she does. 

I found that she became less anxious if I just listened to what she was saying and feeling. Sometimes saying nothing was better than anything I could say. Telling her that I would take care of some of these things put her a bit more at ease. It may feel better for me to verbalize the facts, but what she needs is comfort and security—not the truth. The truth won’t change anything. 

(Shenk, 2001, p. 147)

One of the most frequent reasons for the institutionalization of people with Alzheimer’s disease is that overwhelmed caregivers can no longer cope with the difficulties of keeping them at home (Di Rosa et al., 2011; Apostolova & Cummings, 2008). Many caregivers experience anger and depression, and their own physical and mental health often declines (Kang et al., 2014; Pinquart & Sörensen, 2011; Kantrowitz & Springen, 2007). Clinicians now recognize that one of the most important aspects of treating Alzheimer’s disease and other types of neurocognitive disorders is to focus on the emotional needs of the caregivers, including their needs for regular time out, education about the disease, and psychotherapy (Mittelman & Bartels, 2014; McKenzie & Teri, 2011). Some clinicians also provide caregiver support groups.

SOCIOCULTURAL APPROACHES Sociocultural approaches play an important role in treatment (Pongan et al., 2012; Brooks, 2005; Kalb, 2000) (see MediaSpeak on the next page). A number of day-care facilities for patients with neurocognitive disorders have been developed, providing treatment programs and activities for outpatients during the day and returning them to their homes and families at night. There are also many assisted-living facilities in which those suffering from neurocognitive impairment live in cheerful apartments, receive needed supervision, and take part in various activities that bring more joy and stimulation to their lives. These apartments are typically designed to meet the special needs of the residents—providing more light, for example, or enclosing gardens with circular paths so the residents can go for strolls alone without getting lost. Studies suggest that such facilities often help slow the cognitive decline of residents and enhance their enjoyment of life. In addition, a growing number of practical devices, such as tracking beacons worn on the wrists of Alzheimer’s patients and
Margaret Nance was, to put it mildly, a difficult case. Agitated, combative, often reluctant to eat, she would hit staff members and fellow residents at nursing homes, several of which kicked her out. But when Beatitudes nursing home agreed to an urgent plea to accept her, all that changed.

Disregarding typical nursing-home rules, Beatitudes allowed Ms. Nance, 96 and afflicted with Alzheimer's, to sleep, be bathed and dine whenever she wanted, even at 2 a.m. She could eat anything, too, no matter how unhealthy, including unlimited chocolate.

And she was given a baby doll, a move that seemed so jarring that a supervisor initially objected until she saw how calm Ms. Nance became when she rocked, caressed and fed her “baby,” often agreeing to eat herself after the doll “ate” several spoonfuls.

Dementia patients at Beatitudes are allowed practically anything that brings comfort, even an alcoholic “nip at night,” said Tena Alonzo, director of research. “Whatever your vice is, we’re your folks,” she said. . . .

It is an unusual posture for a nursing home, but Beatitudes is actually following some of the latest science. Research suggests that creating positive emotional experiences for Alzheimer's patients diminishes distress and behavior problems. . . .

Other [studies] recommend making cosmetic changes to rooms and buildings to affect behavior or mood. A study in The Journal of the American Medical Association found that brightening lights in dementia facilities decreased depression, cognitive deterioration and loss of functional abilities. . . .

New research [also] suggests emotion persists after cognition deteriorates. In a University of Iowa study, people with . . . Alzheimer's-like amnesia viewed film clips evoking tears and sadness . . . or laughter and happiness. . . . Six minutes later, participants had trouble recalling the clips. But 30 minutes later, emotion evaluations showed they still felt sad or happy, often more than participants with normal memories. . . .

One program for dementia patients cared for by relatives at home creates specific activities related to something they once enjoyed: arranging flowers, filling photo albums, snapping beans.

“A gentleman who loved fishing could still set up a tackle box, so we gave him a plastic tackle box” to set up every day, said the program's developer, Laura N. Gitlin, a sociologist . . . at Johns Hopkins University. . . .

Beatitudes, which takes about 30 moderate to severe dementia sufferers, introduced its program 12 years ago, focusing on individualized care. . . . Beatitudes eliminated anything potentially considered restraining, from deep-seated wheelchairs that hinder standing up to bedrails (some beds are lowered and protected by mats). It drastically reduced antipsychotics and medications considered primarily for “staff convenience,” focusing on relieving pain, Ms. Alonzo said.

It encouraged keeping residents out of diapers if possible, taking them to the toilet to preserve feelings of independence. Some staff members resisted, Ms. Alonzo said, but now “like it because it saves time” and difficult diaper changes. . . .

Beatitudes also changed activity programming. . . . [S]taff members . . . conduct one-on-one activities: block-building, coloring, simply conversing. . . .

These days, hundreds of Arizona physicians, medical students, and staff members at other nursing homes have received Beatitudes' training, and several Illinois nursing homes are adopting it . . .

shoes that contain a GPS tracker, have been developed to help locate patients who may wander off (Schiller, 2014, Quick, 2011; Neergaard, 2007). Given the progress now unfolding in the understanding and treatment of Alzheimer’s disease and other types of neurocognitive disorders, researchers are looking forward to enormous advances in the coming years. The brain changes responsible for these disorders are tremendously complex, but most investigators believe that exciting breakthroughs are just over the horizon. Ironically, just when significant progress is being made and genuine reason for hope has emerged, the public seems to be losing patience. In one survey of more than 3,000 adults across the United States, only 48 percent of the respondents believed that at least “some” progress has been made toward curing Alzheimer’s disease (Shriver, 2011). In contrast, 74 percent and 81 percent of them believed that at least some progress has been made toward curing cancer and heart disease, respectively.

Issues Affecting the Mental Health of the Elderly

As the study and treatment of elderly people have progressed, three issues have raised concern among clinicians: the problems faced by elderly members of racial and ethnic minority groups, the inadequacies of long-term care, and the need for a health-maintenance approach to medical care in an aging world.

First, discrimination based on race and ethnicity has long been a problem in the United States (see Chapter 3), and many people suffer as a result, particularly those who are old. To be both old and a member of a minority group is considered a kind of “double jeopardy” by many observers. For older women in minority groups, the difficulties are sometimes termed “triple jeopardy,” as many more older women than older men live alone, are widowed, and are poor. Clinicians must take into account their older patients’ race, ethnicity, and gender as they try to diagnose and treat their mental health problems (Kwag et al., 2011; Knight et al., 2006) (see Figure 18-4).

Some elderly people in minority groups face language barriers that interfere with their medical and mental health care. Others may hold cultural beliefs that prevent them from seeking services. Additionally, many members of minority groups do not trust the majority establishment or do not know about medical and mental health services that are sensitive to their culture and their particular needs.
Disorders of Aging and Cognition (Ayalon & Huyck, 2001). As a result, it is common for elderly members of racial and ethnic minority groups to rely largely on family members or friends for remedies and health care.

Today, 10 to 20 percent of elderly people live with their children or other relatives, usually because of increasing health problems (Span, 2009; Etbaugh, 2008). In the United States, this living arrangement is more common for elderly people from ethnic minority groups than for elderly white Americans. Elderly Asian Americans are most likely to live with their children, African Americans and Hispanic Americans are less likely to do so, and white Americans are least likely (Etbaugh, 2008; Armstrong, 2001).

Second, many older people require long-term care, a general term that may refer variably to the services offered outside the family in a partially supervised apartment, a senior housing complex for mildly impaired elderly persons, or a nursing home where skilled medical and nursing care are available around the clock (Samos et al., 2010). The quality of care in such residences varies widely.

At any given time in the United States, only about 4 percent of the entire elderly population actually live in nursing homes (1.5 million people), but around 13 percent of people 85 years and older do eventually wind up being placed in such facilities (USDHHS, 2011; Edelstein et al., 2008). Thus many older adults live in fear of being “put away.” They fear having to move, losing independence, and living in a medical environment. Many also worry about the cost of long-term care facilities. Around-the-clock nursing care is expensive, and nursing home costs continue to rise. Most health insurance plans available today do not adequately cover the costs of long-term or permanent placement (Durso et al., 2010). Worry over these issues can greatly harm the mental health of older adults, perhaps leading to depression and anxiety as well as family conflict.

Finally, clinical scientists suggest that the current generation of young adults should take a health-maintenance, or wellness promotion, approach to their own aging process (Markle-Reid, Keller, & Browne, 2010; Pacala, 2010). In other words, they should do things that promote physical and mental health—avoid smoking, eat well-balanced and healthful meals, exercise regularly, engage in positive social relationships, and take advantage of psychoeducational, stress management, and other

**figure 18-4**

Ethnicity and old age The elderly population is becoming racially and ethnically more diverse. In the United States today, almost 80 percent of all people over the age of 65 are white Americans. By 2050, white Americans will comprise only 59 percent of the elderly.


**Day treatment**

Two women go their separate ways in a New Jersey day-care facility for patients with Alzheimer's disease. They return to their families each night.
There is a growing belief that older adults will adapt more readily to changes and negative events if their physical and psychological health is good.

PUTTING IT...together

Clinicians Discover the Elderly

Early in the twentieth century, mental health professionals focused little on the elderly. But like the problems of children, those of aging people have now caught the attention of researchers and clinicians. Current work is changing how we understand and treat the psychological problems of the elderly. No longer do clinicians simply accept depression or anxiety in elderly people as inevitable. No longer do they overlook the dangers of prescription drug misuse by the elderly. And no longer do they underestimate the dangers of delirium or the prevalence of neurocognitive disorders. Similarly, geropsychologists have become more aware of the importance of addressing the health care and financial needs of the elderly as keys to their psychological well-being.

As the elderly population lives longer and grows ever larger, the needs of people in this age group are becoming more visible. Thus the study and treatment of their psychological problems will probably continue at a rapid pace. Clinicians and public officials are not likely to underestimate their needs and importance again (Hinrichsen, 2010).

Particularly urgent is neurocognitive impairment and its devastating impact on the elderly and their families. As you have read throughout the chapter, Alzheimer’s disease and other kinds of neurocognitive disorders can be tragic and debilitating problems that shatter the lives of both patients and caregivers. Indeed, they may rob patients of the essence of their identities. The complexity of the brain makes neurocognitive disorders difficult to understand, diagnose, and treat. However, researchers are now making important discoveries on a regular basis. To date, this research has largely focused on the biological aspects of the disorders, but the disorders have such a powerful impact on patients and their families that psychological and sociocultural investigations are also starting to grow by leaps and bounds.
In addition, society’s interest in and focus on Alzheimer’s disease and other types of neurocognitive disorders have reminded everyone about the importance of memory and related cognitive faculties. Memory is so central to our lives and to our self-concept that research in this area is of potential value to every person’s well-being, making it important that such work continue to grow in the years to come.

**SUMMING UP**

- **DISORDERS OF LATER LIFE** The problems of elderly people are often linked to the losses and other stresses and changes that accompany advancing age. As many as 50 percent of the elderly would benefit from mental health services, yet fewer than 20 percent receive them. Depression is a common mental health problem among those in this age group. Older people may also suffer from anxiety disorders. Between 4 and 6 percent exhibit alcohol use disorder in any given year, and many others misuse prescription drugs. In addition, some elderly people display psychotic disorders such as schizophrenia or delusional disorder. pp. 607–615

- **DISORDERS OF COGNITION** Older people are more likely than people of other age groups to experience delirium, a fast-developing disturbance marked by great difficulty focusing attention, staying oriented, concentrating, and following an orderly sequence of thought.

  Neurocognitive disorders, characterized by a significant decline in cognitive function, become increasingly common in older age groups. There are many types of neurocognitive disorders, the most common being Alzheimer’s disease. Alzheimer’s disease has been linked to an unusually high number of senile plaques and neurofibrillary tangles in the brain. According to a leading explanation of late-onset Alzheimer’s disease—the most common kind of Alzheimer’s disease—people who inherit ApoE-4, a particular form of the apolipoprotein E (ApoE) gene, are particularly vulnerable to the development of Alzheimer’s disease. Apparently, the ApoE-4 gene form promotes the excessive formation of beta-amyloid proteins, helping to spur the formation of plaques and, in turn, the breakdown of the tau protein, the formation of numerous tangles, the death of many neurons, and ultimately, the onset of Alzheimer’s disease.

  A number of other causes have also been proposed for this disease, including high levels of zinc, lead, or other toxins; immune system problems; and a virus of some kind.

  Researchers are making significant strides at better assessing Alzheimer’s disease and other types of neurocognitive disorders and even at identifying those who will eventually develop these disorders. Drug, cognitive, and behavioral therapies have been used to treat Alzheimer’s disease, with limited success. Addressing the needs of caregivers is now also recognized as a key part of treatment. In addition, sociocultural approaches such as day-care facilities are on the rise. Major treatment breakthroughs are expected in the coming years. pp. 615–630

- **KEY ISSUES** In studying and treating the problems of old age, clinicians have become concerned about three issues: the problems of elderly members of racial and ethnic minority groups, inadequacies of long-term care, and the need for health maintenance by young adults. pp. 630–632
Law, Society, and the Mental Health Profession

Dear Jodie:

There is a definite possibility that I will be killed in my attempt to get Reagan. It is for this very reason that I am writing you this letter now. As you well know by now, I love you very much. The past seven months I have left you dozens of poems, letters and messages in the faint hope you would develop an interest in me. . . . Jodie, I would abandon this idea of getting Reagan in a second if I could only win your heart and live out the rest of my life with you, whether it be in total obscurity or whatever. I will admit to you that the reason I’m going ahead with this attempt now is because I just cannot wait any longer to impress you. I’ve got to do something now to make you understand in no uncertain terms that I am doing all of this for your sake. By sacrificing my freedom and possibly my life I hope to change your mind about me. This letter is being written an hour before I leave for the Hilton Hotel. Jodie, I’m asking you please to look into your heart and at least give me the chance with this historical deed to gain your respect and love. I love you forever.

John Hinckley

John W. Hinckley Jr. wrote this letter to actress Jodie Foster in March 1981. Soon after writing it, he stood waiting, pistol ready, outside the Washington Hilton Hotel. Moments later, President Ronald Reagan came out of the hotel, and the popping of pistol fire was heard. As Secret Service agents pushed Reagan into the limousine, a police officer and the president’s press secretary fell to the pavement. The president had been shot, and by nightfall most of America had seen the face and heard the name of the disturbed young man from Colorado.

As you have seen throughout this book, the psychological dysfunctioning of an individual does not occur in isolation. It is influenced—sometimes caused—by societal and social factors, and it affects the lives of relatives, friends, and acquaintances. The case of John Hinckley demonstrates in powerful terms that individual dysfunction may, in some cases, also affect the well-being and rights of people the person does not know.

By the same token, clinical scientists and practitioners do not conduct their work in isolation. As they study and treat people with psychological problems, they affect and are affected by other institutions of society. We have seen, for example, how the government regulates the use of psychotropic medications, how clinicians helped carry out the government’s policy of deinstitutionalization, and how clinicians have called the psychological ordeals of Vietnam, Iraq, and Afghanistan combat veterans to the attention of society.

In short, like their clients, clinical professionals operate within a complex social system—for clinicians, it is the system that defines and often regulates their professional responsibilities. Just as we must understand the social context in which abnormal behavior occurs in order to understand the behavior, so must we understand the context in which this behavior is studied and treated. This chapter focuses on the relationship between the mental health field and three major forces in society—the legislative/judicial system, the business/economic arena, and the world of technology.
Two social institutions have a particularly strong impact on the mental health profession: the legislative and judicial systems. These institutions—collectively, the legal field—have long been responsible for protecting both the public good and the rights of individuals. Sometimes the relationship between the legal field and the mental health field has been friendly, and those in the two fields have worked together to protect the rights and meet the needs of troubled people and of society at large. At other times they have clashed, and one field has imposed its will on the other.

This relationship has two distinct aspects. On the one hand, mental health professionals often play a role in the criminal justice system, as when they are called upon to help the courts assess the mental stability of people accused of crimes. They responded to this call in the Hinckley case, as you will see, and in thousands of other cases. This aspect of the relationship is sometimes termed psychology in law; that is, clinical practitioners and researchers operate within the legal system. On the other hand, there is another aspect to the relationship, called law in psychology. The legislative and judicial systems act upon the clinical field, regulating certain aspects of mental health care. The courts may, for example, force some people to enter treatment, even against their will. In addition, the law protects the rights of patients. The intersections between the mental health field and the legal and judicial systems are collectively referred to as forensic psychology (Huss, 2013; Pinals & Mossman, 2012). Forensic psychologists or psychiatrists (or related mental health professionals) may perform such varied activities as testifying in trials, researching the reliability of eyewitness testimony, or helping police profile the personality of a serial killer on the loose.

Psychology in Law: How Do Clinicians Influence the Criminal Justice System?

To arrive at just and appropriate punishments, the courts need to know whether defendants are responsible for the crimes they commit and capable of defending themselves in court. If not, it would be inappropriate to find defendants guilty or punish them in the usual manner. The courts have decided that in some instances people who suffer from severe mental instability may not be responsible for their actions or may not be able to defend themselves in court, and so should not be punished in the usual way. Although the courts make the final judgment as to mental instability, their decisions are guided to a large degree by the opinions of mental health professionals.

Would-be assassin
Few courtroom decisions have spurred as much debate or legislative action as the jury’s verdict that John Hinckley, having been captured in the act of shooting President Ronald Reagan, was not guilty by reason of insanity.
These judgments of mental instability have stirred many arguments. Some people consider the judgments to be loopholes in the legal system that allow criminals to escape proper punishment for wrongdoing. Others argue that a legal system simply cannot be just unless it allows for extenuating circumstances, such as mental instability. The practice of criminal commitment differs from country to country. In this chapter you will see primarily how it operates in the United States. Although the specific principles and procedures of each country may differ, most countries grapple with the same issues, concerns, and decisions that you will read about here.

**Criminal Commitment and Insanity During Commission of a Crime** Consider once again the case of John Hinckley. Was he insane at the time he shot the president? If insane, should he be held responsible for his actions? On June 21, 1982, fifteen months after he shot four men in the nation's capital, a jury pronounced Hinckley not guilty by reason of insanity. Hinckley thus joined Richard Lawrence, a house painter who shot at Andrew Jackson in 1835, and John Schrank, a saloonkeeper who shot former president Teddy Roosevelt in 1912, as a would-be assassin who was found not guilty by reason of insanity.

Although most Americans were shocked by the Hinckley verdict, those familiar with the insanity defense were not so surprised. In this case, as in other federal court cases at that time, the prosecution had the burden of proving that the defendant was sane beyond a reasonable doubt. Many state courts placed a similar responsibility on the prosecution. To present a clear-cut demonstration of sanity can be difficult, especially when the defendant has exhibited bizarre behavior in other areas of life. A few years after the Hinckley verdict, Congress passed a law making it the defense's burden in federal cases to prove that defendants are insane, rather than the prosecution's burden to prove them sane. Around 70 percent of state legislatures have since followed suit.

It is important to recognize that “insanity” is a *legal* term (Morse & Bonnie, 2013; Simon & Gold, 2010). That is, the definition of “insanity” used in criminal cases was written by legislators, not by clinicians. Defendants may have mental disorders but not necessarily qualify for a legal definition of insanity. Modern Western definitions of insanity can be traced to the murder case of Daniel M’Naghten in England in 1843. M’Naghten shot and killed Edward Drummond, the secretary to British prime minister Robert Peel, while trying to shoot Peel. Because of M’Naghten’s apparent delusions of persecution, the jury found him to be not guilty by reason of insanity. The public was outraged by this decision, and their angry outcry forced the British law lords to define the insanity defense more clearly. This legal definition, known as the M’Naghten test, or M’Naghten rule, stated that having a mental disorder at the time of a crime does not by itself mean that the person was insane; the defendant also had to be unable to know right from wrong. The state and federal courts in the United States adopted this test as well.

In the late nineteenth century some state and federal courts in the United States, dissatisfied with the M’Naghten rule, adopted a different test—the *irresistible impulse test*. This test, which had first been used in Ohio in 1834, emphasized the inability to control one’s actions. A person who committed a crime during an uncontrollable “fit of passion” was considered insane and not guilty under this test.

For years state and federal courts chose between the M’Naghten test and the irresistible impulse test to determine the sanity of criminal defendants. For a while a third test, called the *Durham test*, also became popular, but it was soon replaced in most courts. This test, based on a decision handed down by the Supreme Court in 1954 in the case of *Durham v. United States*, stated simply that people are not criminally responsible if their “unlawful act was the product of mental disease or mental defect.” This test was meant to offer more flexibility in court decisions, but...
it proved too flexible. Insanity defenses could point to such problems as alcoholism or other forms of substance abuse and conceivably even headaches or ulcers, which were listed as psychophysiological disorders in DSM-I.

In 1955 the American Law Institute (ALI) formulated a test that combined aspects of the M’Naghten, irresistible impulse, and Durham tests. The American Law Institute test held that people are not criminally responsible if at the time of a crime they had a mental disorder or defect that prevented them from knowing right from wrong or from being able to control themselves and to follow the law. For a time the new test became the most widely accepted legal test of insanity. After the Hinckley verdict, however, there was a public uproar over the “liberal” ALI guidelines, and people called for tougher standards.

Partly in response to this uproar, the American Psychiatric Association recommended in 1983 that people should be found not guilty by reason of insanity only if they did not know right from wrong at the time of the crime; an inability to control themselves and to follow the law should no longer be sufficient grounds for a judgment of insanity. In short, the association was calling for a return to the M’Naghten test. This test now is used in all cases tried in federal courts and in about half of the state courts. The more liberal ALI standard is still used in the remaining state courts, except in Idaho, Kansas, Montana, and Utah, which have more or less done away with the insanity plea altogether. Research has not found, however, that the stricter M’Naghten definition actually reduces the likelihood of verdicts of not guilty by reason of insanity (Ogloff et al., 1992).

People suffering from severe mental disorders in which confusion is a major feature may not be able to tell right from wrong or to control their behavior. It is therefore not surprising that approximately two-thirds of defendants who are acquitted of a crime by reason of insanity qualify for a diagnosis of schizophrenia, both in North America and Europe (Almeida et al., 2010; Novak et al., 2007; Steadman et al., 1993). The vast majority of these acquitted defendants have a history of past hospitalization, arrest, or both. About half who successfully plead insanity are white, and 86 percent are male. Their mean age is 32 years. The crimes for which defendants are found not guilty by reason of insanity vary greatly, although approximately 65 percent are violent crimes of some sort. At least 15 percent of those acquitted are accused specifically of murder (see Figure 19-1 and PsychWatch on the next page).

WHAT CONCERNS ARE RAISED BY THE INSANITY DEFENSE? Despite the changes in the insanity tests, criticism of the insanity defense continues (Slovenko, 2011, 2004, 2002; Sales & Shuman, 2005). One concern is the fundamental difference between the law and the science of human behavior (Pouncey & Lukens, 2010). The law assumes that individuals have free will and are generally responsible for their actions. Several models of human behavior, in contrast, assume that physical or psychological forces act to determine the individual’s behavior. Inevitably, then, legal definitions of insanity and responsibility will differ from those suggested by clinical research.

A second criticism points to the uncertainty of scientific knowledge about abnormal behavior. During a typical insanity defense trial, the testimony of defense clinicians conflicts with that of clinicians hired by the prosecution, and so the jury must weigh the claims of “experts” who disagree in their assessments (Sadoff, 2011; Schopp et al., 2010). Some people see this lack of professional agreement as evidence that clinical knowledge in some areas may be too incomplete to be allowed to influence important legal decisions. Others counter that the field has made great strides—for example, developing several psychological scales to help
Famous Insanity Defense Cases

1977 In Michigan, Francine Hughes poured gasoline around the bed where her husband, Mickey, lay in a drunken stupor. Then she lit a match and set him on fire. At her trial she explained that he had beaten her repeatedly for 14 years and had threatened to kill her if she tried to leave him. The jury found her not guilty by reason of temporary insanity, making her into a symbol for many abused women across the nation.

1978 David “Son of Sam” Berkowitz, a serial killer in New York City, explained that a barking dog had sent him demonic messages to kill. Although two psychiatrists assessed him as psychotic, he was found guilty of his crimes. Long after his trial, he said that he had actually made up the delusions.

1979 Kenneth Bianchi, one of the pair known as the Hillside Strangler, entered a plea of not guilty by reason of insanity but was found guilty along with his cousin of sexually assaulting and murdering women in the Los Angeles area in late 1977 and early 1978. He claimed that he had multiple personality disorder.

1980 In December, Mark David Chapman murdered John Lennon. Chapman later explained that he had killed the rock music legend because he believed Lennon to be a “sell-out.” Pleading not guilty by reason of insanity, he also described hearing the voice of God, considered himself his generation’s “catcher in the rye” (from the J. D. Salinger novel), and compared himself with Moses. Chapman was convicted of murder.

1981 In an attempt to prove his love for actress Jodie Foster, John Hinckley Jr. tried to assassinate President Ronald Reagan. Hinckley was found not guilty by reason of insanity and was committed to St. Elizabeth’s Hospital for the criminally insane in Washington, DC, where he remains today.

1992 Jeffrey Dahmer, a 31-year-old mass murderer in Milwaukee, was tried for the killings of 15 young men. Dahmer apparently drugged some of his victims, performed crude lobotomies on them, and dismembered their bodies and stored their parts to be eaten. Despite a plea of not guilty by reason of insanity, the jury found him guilty as charged. He was beaten to death by another inmate in 1995.

1994 On June 23, 1993, twenty-four-year-old Lorena Bobbitt cut off her husband’s penis with a 12-inch kitchen knife while he slept. During her trial, defense attorneys argued that after years of abuse by John Bobbitt, her husband suffered a brief psychotic episode and was seized by an “irresistible impulse” to cut off his penis after he came home drunk and raped her. In 1994, the jury found her not guilty by reason of temporary insanity. She was committed to a state mental hospital and released a few months later.

2003 For three weeks in October 2002, John Allen Muhammad and Lee Boyd Malvo went on a sniping spree in the Washington, DC, area, shooting 10 people dead and wounding 3 others. Attorneys for Malvo, a teenager, argued that he had acted under the influence of the middle-aged Muhammad and that he should be found not guilty of the crimes by reason of insanity. The jury, though, found Malvo guilty of capital murder and sentenced him to life in prison.

2006 On June 20, 2001, Andrea Yates, a 36-year-old woman, drowned each of her five children in the bathtub. Yates had a history of postpartum depression and postpartum psychosis: she believed that she was the devil, that she had failed to be a good mother, and that her children were not developing correctly. Given such problems and history, she pleaded not guilty by reason of insanity during her trial. In 2002, however, a Texas jury found her guilty and sentenced her to life in prison. This verdict was later overturned, and in 2006, after a new trial, Yates was found not guilty by reason of insanity and sent to a mental health facility for treatment.

2011 In 2002, Brian David Mitchell abducted a 14-year-old teenager named Elizabeth Smart from her home and held her until she was rescued nine months later. After years of trial delays, Mitchell was brought to trial in a federal court in 2010 for the crime of kidnapping. He pleaded not guilty by reason of insanity, saying that he was acting out delusions (“revelations from God”) when he committed this crime. After deliberating for just five hours, the jury found him guilty of kidnapping. He was sentenced to life in prison without parole in 2011.

2012 On July 20, 2012, James Holmes, a 25-year-old neuroscience doctoral student, entered a cinema in Aurora, Colorado, and opened fire on the moviegoers, killing 12 and wounding 20. In the months after his arrest and incarceration, Holmes, who had no prior criminal record, tried to commit suicide three times. Holmes pleaded not guilty by reason of insanity in 2013 and is currently awaiting trial.
Defendants

guilty but mentally ill.

AP Photo/Douglas C. Pizac

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guilty by reason of insanity plea. and sentenced to life in prison, despite his not trial. Mitchell was found guilty of kidnapping misleading psychopath” and scheduled him for federal court judge called him an “effectively incompetent to stand trial. Finally, in 2010, a following his capture, Mitchell was declared was rescued nine months later. For seven years knifepoint from her home and held her until she 14-year-old teenager named In 2002 Brian David Mitchell abducted a Elizabeth Smart at knifepoint from her home and held her until she was rescued nine months later. For seven years following his capture, Mitchell was declared incompetent to stand trial. Finally, in 2010, a federal court judge called him an “effectively misleading psychopath” and scheduled him for trial. Mitchell was found guilty of kidnapping and sentenced to life in prison, despite his not guilty by reason of insanity plea.

“Effectively misleading psychopath”
In 2002 Brian David Mitchell abducted a 14-year-old teenager named Elizabeth Smart at knifepoint from her home and held her until she was rescued nine months later. For seven years following his capture, Mitchell was declared incompetent to stand trial. Finally, in 2010, a federal court judge called him an “effectively misleading psychopath” and scheduled him for trial. Mitchell was found guilty of kidnapping and sentenced to life in prison, despite his not guilty by reason of insanity plea.

Even with helpful scales in hand, however, clinicians making judgments of legal insanity face a problem that is difficult to overcome: They must evaluate a defendant’s state of mind during an event that took place weeks, months, or years earlier. Because mental states can and do change over time and across situations, clinicians can never be entirely certain that their assessments of mental instability at the time of the crime are accurate.

Perhaps the most common criticism of the insanity defense is that it allows dangerous criminals to escape punishment. Granted, some people who successfully plead insanity are released from treatment facilities just months after their acquittal. Yet the number of such cases is quite small (Asmar, 2014; MHA, 2007, 2004; Steadman et al., 1993). According to surveys, the public dramatically overestimates the percentage of defendants who plead insanity, guessing it to be 30 to 40 percent, when in fact it is less than 1 percent. Moreover, only a minority of these defendants fake or exaggerate their psychological symptoms (Resnick & Harris, 2002), and only 26 percent of those who plead insanity are actually found not guilty on this basis (Asmar, 2014; APA, 2003; Callahan et al., 1991). In all, less than 1 of every 400 defendants in the United States is found not guilty by reason of insanity. It is also worth noting that in 80 percent of those cases in which defendants are acquitted by reason of insanity, the prosecution has agreed to the appropriateness of the plea.

During most of U.S. history, a successful insanity plea amounted to the equivalent of a long-term prison sentence. In fact, treatment in a mental hospital often resulted in a longer period of confinement than a verdict of guilty would have brought (Nwokike, 2005; Perlin, 2000). Because hospitalization resulted in little if any improvement, clinicians were reluctant to predict that the offenders would not repeat their crimes. Moreover, horrific cases would occasionally call into question clinicians’ ability to make such judgments and to predict dangerousness (Hooper et al., 2005). In Idaho, for example, a young man raped two women and was found not guilty by reason of insanity. He was released after less than a year of treatment, shot a nurse, and this time was convicted of assault with intent to kill. The uproar over this 1981 case led the Idaho state legislature to abolish the insanity plea.

Today, however, offenders are being released from mental hospitals earlier and earlier. This trend is the result of the increasing effectiveness of drug therapy and other treatments in institutions, the growing reaction against extended institutionalization, and more emphasis on patients’ rights (Slovenko, 2011, 2009, 2004; Salekin & Rogers, 2001). In 1992, in the case of Foucha v. Louisiana, the U.S. Supreme Court clarified that the only acceptable basis for determining the release of hospitalized offenders is whether or not they are still “insane”; they cannot be kept indefinitely in mental hospitals solely because they are dangerous. Some states are able to maintain control over offenders even after their release from hospitals. The states may insist on community treatment, monitor the patients closely, and rehospitalize them if necessary (Swanson & Swartz, 2014).

WHAT OTHER VERDICTS ARE AVAILABLE? Over the past four decades, at least 20 states have added another verdict option—guilty but mentally ill. Defendants who receive this verdict are found to have had a mental illness at the time of their crime, but the illness was not fully related to or responsible for the crime. The option of guilty but mentally ill enables jurors to convict a person they view as dangerous while also suggesting that the individual receive needed treatment. Defendants found to be guilty but mentally ill are given a prison term with the added

BETWEEN THE LINES

In Their Words

“Annual acquittals via Not Guilty by Reason of Insanity in the United States are rarer than the reported annual incidence of snake bites in New York City.”
Ernest C. Miller, MD
recommendation that they also undergo treatment if necessary.

After initial enthusiasm for this verdict option, legal and clinical theorists have increasingly found it unsatisfactory. According to research, it has not reduced the number of not guilty by reason of insanity verdicts, and it often confuses jurors in both real and mock trials. In addition, as critics point out, appropriate mental health care is supposed to be available to all prisoners anyway, regardless of the verdict. That is, the verdict of guilty but mentally ill may differ from a guilty verdict in name only (Slovenko, 2011, 2009, 2004, 2002).

Some states allow still another kind of defense, guilty with diminished capacity, in which a defendant’s mental dysfunctioning is viewed as an extenuating circumstance that the court should take into consideration in determining the precise crime of which he or she is guilty (Slovenko, 2011; Leong, 2000). The defense lawyer argues that because of mental dysfunctioning, the defendant could not have intended to commit a particular crime. The person can then be found guilty of a lesser crime—of manslaughter (unlawful killing without intent), say, instead of murder in the first degree (planned murder). The famous case of Dan White, who shot and killed Mayor George Moscone and City Supervisor Harvey Milk of San Francisco in 1978, illustrates the use of this verdict.

On the morning of November 27, 1978, Dan White loaded his .38 caliber revolver. White had recently resigned his position as a San Francisco supervisor because of family and financial pressures. Now, after a change of heart, he wanted his job back. When he asked Mayor George Moscone to reappoint him, however, the mayor refused. Supervisor Harvey Milk was among those who had urged Moscone to keep White out, for Milk was America’s first openly gay politician, and Dan White had been an outspoken opponent of measures supporting gay rights.

White avoided the metal detector at City Hall’s main entrance [and] went straight to the mayor’s office. . . . White pulled out his gun and . . . from only inches away, fired twice into Moscone’s head.

White then reloaded his gun, ran down the hall, and spotted Harvey Milk. . . . Once again White from point-blank range fired two more bullets into his victim’s head. Shortly afterward he turned himself in to the police. Several months later the jury rendered its verdict: Dan White was not guilty of murder, only voluntary manslaughter. . . .

Defense attorney Douglas Schmidt argued that a patriotic, civic-minded man like Dan White—high school athlete, decorated war veteran, former fireman, policeman, and city supervisor—could not possibly have committed such an act unless something had snapped inside him. The brutal nature of the two final shots to each man’s head only proved that White had lost his wits. White was not fully responsible for his actions because he suffered from “diminished capacity.” Although White killed Mayor George Moscone and Supervisor Harvey Milk, he had not planned his actions. On the day of the shootings, White was mentally incapable of planning to kill, or even of wanting to do such a thing.

Well known in forensic psychiatry circles, Martin Blinder, professor of law and psychiatry at the University of California’s Hastings Law School in San Francisco, brought
a good measure of academic prestige to White’s defense. White had been, Blinder explained to the jury, “gorging himself on junk food: Twinkies, Coca-Cola. . . . The more he consumed, the worse he’d feel and he’d respond to his ever-growing depression by consuming ever more junk food.” Schmidt later asked Blinder if he could elaborate on this. “Perhaps if it were not for the ingestion of this junk food,” Blinder responded, “I would suspect that these homicides would not have taken place.” From that moment on, Blinder became known as the author of the Twinkie defense. . . .

Dan White was convicted only of voluntary manslaughter, and was sentenced to seven years, eight months. (He was released on parole January 6, 1984.) Psychiatric testimony convinced the jury that White did not wish to kill George Moscone or Harvey Milk.

The angry crowd that responded to the verdict by marching, shouting, trashing City Hall, and burning police cars was in good part homosexual. Gay supervisor Harvey Milk had worked well for their cause, and his loss was a serious setback for human rights in San Francisco. Yet it was not only members of the gay community who were appalled at the outcome. Most San Franciscans shared their feelings of outrage.

(Coleman, 1984, pp. 65–70)

Because of possible miscarriages of justice, many legal experts have argued against the “diminished capacity” defense. A number of states have even eliminated it, including California shortly after the Dan White verdict (Slovenko, 2011, 2009, 2002, 1992; Gado, 2008).

WHAT ARE SEX-OFFENDER STATUTES? Since 1937, when Michigan passed the first “sexual psychopath” law, a number of states have placed sex offenders in a special legal category (Perillo et al., 2014; Ewing, 2011; Miller, 2010). These states believe that some of those who are repeatedly found guilty of sex crimes have a mental disorder, so the states categorize them as mentally disordered sex offenders.

People classified in this way are convicted of a criminal offense and are thus judged to be responsible for their actions. Nevertheless, mentally disordered sex offenders are sent to a mental health facility instead of a prison. In part, such laws reflect a belief held by many legislators that such sex offenders are psychologically disturbed. On a practical level, the laws help protect sex offenders from the physical abuse that they often receive in prison society.

Over the past two decades, however, most states have been changing or abolishing their mentally disordered sex offender laws, and at this point only a handful still have them. There are several reasons for this trend. First, states typically have found the laws difficult to apply. Some of the laws, for example, require that the offender be found “sexually dangerous beyond a reasonable doubt”—a judgment that is often beyond the reach of the clinical field’s expertise. Similarly, the laws may require that in order to be classified as a mentally disordered sex offender, the person must be a good candidate for treatment, another judgment that is difficult for clinicians to make, especially for this population (Marshall et al., 2011; Bradford et al., 2010). Third, there is evidence that racial bias often affects the use of the mentally disordered sex offender classification. From a defendant’s perspective, this classification is considered an attractive alternative to imprisonment—an alternative available to white Americans much more often than to members of racial minority groups. White Americans are twice as likely as African Americans or Hispanic Americans who have been convicted of similar crimes to be granted mentally disordered sex offender status.
But perhaps the primary reason that mentally disordered sex offender laws have lost favor is that state legislatures and courts are now less concerned than they used to be about the rights and needs of sex offenders, given the growing number of sex crimes taking place across the country (Laws & Ward, 2011), particularly ones in which children are victims. In fact, in response to public outrage over the high number of sex crimes, 21 states and the federal government have instead passed sexually violent predator laws (or sexually dangerous persons laws). These new laws call for certain sex offenders who have been convicted of sex crimes and have served their sentence in prison to be removed from prison before their release and committed involuntarily to a mental hospital for treatment if a court judges them likely to engage in further “predatory acts of sexual violence” as a result of “mental abnormality” or “personality disorder” (Perillo et al., 2014; Ewing, 2011; Miller, 2010). That is, in contrast to the mentally disordered sex offender laws, which call for sex offenders to receive treatment instead of imprisonment, the sexually violent predator laws require certain sex offenders to receive imprisonment and then, in addition, be committed for a period of involuntary treatment. The constitutionality of the sexually violent predator laws was upheld by the Supreme Court in the 1997 case of Kansas v. Hendricks by a 5-to-4 margin.

Although courts are required, in sexually violent predator cases, to determine whether a soon-to-be-released prisoner is “likely to engage” in future acts of sexual violence, the laws do not provide much guidance about how to make this judgment. A study of jurors who have served in such court cases has found that half of the jurors considered a 1 percent likelihood of committing future sex crimes to be sufficient grounds for involuntary commitment and treatment (Knighton et al., 2014). Clearly, many jurors in such cases attach more weight to the severity of the sexual acts than to the statistical probability that the persons will again commit such acts.

Criminal Commitment and Incompetence to Stand Trial Regardless of their state of mind at the time of a crime, defendants may be judged to be mentally incompetent to stand trial. The competence requirement is meant to ensure that defendants understand the charges they are facing and can work with their lawyers to prepare and conduct an adequate defense (Reisner et al., 2013; Schopp et al., 2010). This minimum standard of competence was specified by the Supreme Court in the case of Dusky v. United States (1960).

The issue of competence is most often raised by the defendant’s attorney, although prosecutors, arresting police officers, and even the judge may raise it as well (Reisner et al., 2013). They prefer to err on the side of caution because some convictions have been reversed on appeal when a defendant’s competence was not established at the beginning. When the issue of competence is raised, the judge orders a psychological evaluation, usually on an inpatient basis (see Table 19-1 on the next page). As many as 60,000 competency evaluations are conducted in the United States each year (Roesch et al., 2010, 1999; Zapf & Roesch, 2009, 2006). Approximately 20 percent of defendants who receive such an evaluation are found to be incompetent to stand trial. If the court decides that the defendant is incompetent, he or she is typically assigned to a mental health facility until competent to stand trial.

A recent, famous case of incompetence to stand trial is that of Jared Lee Loughner. On January 8, 2011, Loughner went to a political gathering at a shopping center in Tucson, Arizona, and opened fire on 20 persons. Six people were killed and 14 injured, including U.S. representative Gabrielle Giffords. Giffords, the apparent target of the attack, survived, although she was shot in the head. After Loughner underwent five weeks of psychiatric assessment, a judge ruled that he was incompetent to stand trial. It was not until 18 months later, after extended treatment with antipsychotic
drugs, that Loughner was ruled competent to stand trial. In November 2012, he pleaded guilty to murder and was sentenced to life imprisonment.

Sometimes, incompetence rulings can continue even longer. In another famous case, a man named Russell Weston entered the U.S. Capitol building in 1998, apparently seeking out then–House Majority Whip Tom DeLay, among others, and shot two police officers to death. In 1999, Weston, who had stopped taking medications for his severe psychosis, was found incompetent to stand trial and sent to a psychiatric institution. In 2001, a judge ruled that he should be forced to take medications again, but even with such drugs Weston continued to have severe symptoms and to this day remains incompetent to stand trial.

Many more cases of criminal commitment result from decisions of mental incompetence than from verdicts of not guilty by reason of insanity (Roesch et al., 2010; Zapf & Roesch, 2006). However, the majority of criminals currently institutionalized for psychological treatment in the United States are not from either of these two groups. Rather, they are convicted inmates whose psychological problems have led prison officials to decide they need treatment, either in mental health units within the prison or in mental hospitals (Metzner & Dvoskin, 2010) (see Figure 19-2).

It is possible that an innocent defendant, ruled incompetent to stand trial, could spend years in a mental health facility with no opportunity to disprove the criminal accusations against him or her. Some defendants have, in fact, served longer “sentences” in mental health facilities awaiting a ruling of competence than they would have served in prison had they been convicted. Such a possibility was reduced when the Supreme Court ruled, in the case of Jackson v. Indiana (1972), that an incompetent defendant cannot be indefinitely committed. After a reasonable amount of time, he or she should either be found competent and tried, set free, or transferred to a mental health facility under civil commitment procedures.

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**Multicultural Issues: Race and Forensic Psychology**

- Psychologically disturbed people from racial minority groups are more likely than disturbed white Americans to be sent to prison, as opposed to mental health facilities.

- Among defendants evaluated for competence to stand trial, those from racial minority groups are more likely than white American defendants to be referred for inpatient evaluations.

- Among defendants evaluated for competence to stand trial, those from racial minority groups are more likely than white Americans to have the evaluation done in a strict-security inpatient setting, rather than in the noncorrectional mental health system.

- When nonwhite and white defendants are evaluated for competence to stand trial, the defendants from racial minority groups are more likely to be found incompetent to stand trial.

- In New York State, 42 percent of all people ordered into involuntary outpatient commitment are African American, 34 percent are white American, and 21 percent are Hispanic American. In contrast, these three groups comprise, respectively, 17 percent, 61 percent, and 16 percent of New York’s general population.

(Information from: Haroules, 2007; Pinals et al., 2004; Grekin et al., 1994; Arvanites, 1989)
Until the early 1970s, most states required that mentally incompetent defendants be committed to maximum security institutions for the “criminally insane.” Under current law, however, the courts have more flexibility. In fact, when the charges are relatively minor, such defendants are often treated on an outpatient basis, an arrangement often called jail diversion because the disturbed person is “diverted” from jail to the community for mental health care (Hernandez, 2014).

Law in Psychology: How Do the Legislative and Judicial Systems Influence Mental Health Care?

Just as clinical science and practice have influenced the legal system, so the legal system has had a major impact on clinical practice. First, courts and legislatures have developed the process of civil commitment, which allows certain people to be forced into mental health treatment. Although many people who show signs of mental disturbance seek treatment voluntarily, a large number are not aware of their problems or are simply not interested in undergoing therapy. For such people, civil commitment procedures may be put into action.

Second, the legal system, on behalf of the state, has taken on the responsibility of protecting patients’ rights during treatment. This protection extends not only to patients who have been involuntarily committed but also to those who seek treatment voluntarily, even on an outpatient basis.

Civil Commitment Every year in the United States, large numbers of people with mental disorders are involuntarily committed to treatment. Typically they are committed to mental institutions, but 45 states also have some form of outpatient civil commitment laws that allow patients to be forced into community treatment programs (Morrissey, Desmarais, & Domino, 2014; Swanson & Swartz, 2014). Canada and Great Britain have similar laws. Civil commitments have long caused controversy and debate. In some ways the law provides more protection for people suspected of being criminals than for people suspected of being psychotic (Strachan, 2008; Burton, 1990).

WHY COMMIT? Generally our legal system permits involuntary commitment of individuals when they are considered to be in need of treatment and dangerous to
themselves or others. People may be dangerous to themselves if they are suicidal or if they act recklessly (for example, drinking a drain cleaner to prove that they are immune to its chemicals). They may be dangerous to others if they seek to harm them (see PsychWatch below) or if they unintentionally place others at risk. The state’s authority to commit disturbed people rests on its duties to protect the interests of the individual and of society: the principles of parens patriae and police power. Under parens patriae (“parent of the country”), the state can take action to protect patients from self-harm, including through involuntarily hospitalizing them. Conversely, police power allows the state to take steps to protect society from a person who is dangerous.

WHAT ARE THE PROCEDURES FOR CIVIL COMMITMENT? Civil commitment laws vary from state to state. Some basic procedures, however, are common to most of these laws. Often family members begin commitment proceedings. In response to a winter night in 2008, a 39-year-old man named David Tarloff went to the New York City office of psychiatrist Kent Shinbach with robbery on his mind. Tarloff had a long history of severe mental disorders, and apparently Dr. Shinbach had played a role in one of his diagnoses and institutionalizations back in 1991. Upon his arrival, however, Tarloff first came upon psychologist Dr. Kathryn Faughey, whose office was near Dr. Shinbach’s. In the course of events, Tarloff slashed Dr. Faughey to death with a meat cleaver and seriously wounded Dr. Shinbach, who tried to come to the psychologist’s aid.

As you have read, the vast majority of people with severe mental disorders are not violent and in fact are much more likely to be victims of violence than perpetrators. Nevertheless, periodic cases, like the tragic murder of Dr. Faughey, do occur, reminding psychotherapists that there is indeed some degree of danger attached to their profession—a profession in which clients are invited to expose and address their innermost feelings and concerns. Such danger is particularly a possibility in cases in which clients have displayed a history of violence.

According to surveys, more than 80 percent of therapists have on at least one occasion feared that a client might physically attack them (Pope, 2014). Approximately 20 percent of therapists have, in fact, been attacked in some form by a client at least once in therapy (Pope, 2014). And as many as 11 percent of therapists will be stalked or harassed by patients during their career (Carr et al., 2013).

Patients have used a variety of weapons in their attacks, including such common objects as shoes, lamps, fire extinguishers, and canes. Some have used guns or knives and have severely wounded or even killed a therapist, as we saw in the case of Dr. Faughey.

As you can imagine, many therapists who have been attacked continue to feel anxious and insecure in their work for a long time afterward. Some try to be more selective in accepting patients and to look for cues that signal impending violence. It is possible that such concerns represent a significant distraction from the task at hand when they are in session with clients.

How do you think a physical attack by a client might affect a clinician’s subsequent professional behavior?

Justice postponed David Tarloff is walked out of a police precinct a few days after killing psychologist Kathryn Faughey in February 2008. Declared incompetent to stand trial for several years, Tarloff did not go on trial until 2013. In 2014, a jury found him guilty of murder, rejecting his plea of not guilty by reason of insanity.

Violence Against Therapists

On a winter night in 2008, a 39-year-old man named David Tarloff went to the New York City office of psychiatrist Kent Shinbach with robbery on his mind. Tarloff had a long history of severe mental disorders, and apparently Dr. Shinbach had played a role in one of his diagnoses and institutionalizations back in 1991. Upon his arrival, however, Tarloff first came upon psychologist Dr. Kathryn Faughey, whose office was near Dr. Shinbach’s. In the course of events, Tarloff slashed Dr. Faughey to death with a meat cleaver and seriously wounded Dr. Shinbach, who tried to come to the psychologist’s aid.

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to a son’s psychotic behavior and repeated assaults on other people, for example, his parents may try to persuade him to seek admission to a mental institution. If the son refuses, the parents may go to court and seek an involuntary commitment order. If the son is a minor, the process is simple. The Supreme Court, in the case of *Parham v. J. R.* (1979), has ruled that a hearing is not necessary in such cases, as long as a qualified mental health professional considers commitment necessary. If the son is an adult, however, the process is more involved. The court usually will order a mental examination and allow the person to contest the commitment in court, often represented by a lawyer.

Although the Supreme Court has offered few guidelines concerning specific procedures of civil commitment, one important decision, in the case of *Addington v. Texas* (1979), outlined the minimum standard of proof needed for commitment. Here the court ruled that before an individual can be committed, there must be “clear and convincing” proof that he or she is mentally ill and has met the state’s criteria for involuntary commitment. The ruling does not suggest what criteria should be used. That matter is still left to each state. But, whatever the state’s criteria, clinicians must offer clear and convincing proof that the person meets those criteria. When is proof clear and convincing, according to the court? When it provides 75 percent certainty that the criteria of commitment have been met. This is far less than the near-total certainty (“beyond a reasonable doubt”) required to convict people of committing a crime.

**EMERGENCY COMMITMENT** Many situations require immediate action; no one can wait for commitment proceedings when a life is at stake. Consider, for example, an emergency patient who is suicidal or hearing voices demanding hostile actions against others. He or she may need immediate treatment and round-the-clock supervision. If treatment could not be given in such situations without the patient’s full consent, the consequences could be tragic.

Therefore, many states give clinicians the right to certify that certain patients need temporary commitment and medication. In past years, these states required certification by two physicians (not necessarily psychiatrists in some of the states). Today states may allow certification by other mental health professionals as well. The clinicians must declare that the state of mind of the patient makes them dangerous to themselves or others. By tradition, the certifications are often referred to as two-physician certificates, or 2 PCs. The length of such emergency commitments varies from state to state, but three days is often the limit. Should clinicians come to believe that a longer stay is necessary, formal commitment proceedings may be initiated during the period of emergency commitment.

**WHO IS DANGEROUS?** In the past, people with mental disorders were actually less likely than others to commit violent or dangerous acts. This low rate of violence was apparently related to the fact that so many such people lived in institutions. As a result of deinstitutionalization, however, hundreds of thousands of people with severe disturbances now live in the community, and many of them receive little, if any, treatment. Some are indeed dangerous to themselves or others.

Although approximately 90 percent of people with mental disorders are in no way violent or dangerous, studies now suggest at least a small relationship between severe mental disorders and violent behavior (Palijan et al., 2010; Norko & Baranoski, 2008). Actually, the disorders with the strongest relationships to violence are severe substance use disorder, impulse control disorder, and antisocial personality disorder (Ten Have et al., 2014) and psychotic disorders (Volavka, 2013). Of these, substance use disorder appears to be the single most influential factor. For example, schizophrenia compounded by substance use disorder has a stronger relationship to violence than schizophrenia alone does. After reviewing a number of studies, John Monahan (2010, 2001, 1992), a law and psychology professor, concluded...
that the rate of violent behavior among people with severe mental disorders is somewhat higher than that of people without such disorders, but that findings do not suggest people with mental disorders to be generally dangerous. Nor do they justify the “caricature of the mentally disordered” that is often portrayed by the media or the “lock ’em up” laws proposed by some politicians.

A determination of dangerousness is often required for involuntary civil commitment. But can mental health professionals accurately predict who will commit violent acts? Research suggests that psychiatrists and psychologists are wrong more often than right when they make long-term predictions of violence (Mills, Kroner, & Morgan, 2011; Palijan et al., 2010). Most often they overestimate the likelihood that a patient will eventually be violent. Their short-term predictions—that is, predictions of imminent violence—tend to be more accurate (Stanislaus, 2013; Otto & Douglas, 2010; Litwack et al, 2006). Researchers are now working, with some success, to develop new assessment techniques that use statistical approaches and are more objective in their predictions of dangerousness than are the subjective judgments of clinicians (Pinals & Mossman, 2012).

**WHAT ARE THE PROBLEMS WITH CIVIL COMMITMENT?** Civil commitment has been criticized on several grounds (Evans & Salekin, 2014; Falzer, 2011; Petrila, 2010; Winick, 2008). First is the difficulty of assessing a person’s dangerousness. If judgments of dangerousness are often inaccurate, how can one justify using them to deprive people of liberty? Second, the legal definitions of “mental illness” and “dangerousness” are vague. The terms may be defined so broadly that they could be applied to almost anyone an evaluator views as undesirable. Indeed, many civil libertarians worry about involuntary commitment being used to control people, as was done in the former Soviet Union and now seems to be taking place in China, where mental hospitals house people with unpopular political views. A third problem is the sometimes questionable therapeutic value of civil commitment. Research suggests that many people committed involuntarily do not respond well to therapy.

On the basis of these and other arguments, some clinicians suggest that involuntary commitment should be abolished (McSherry & Weller, 2010; Szasz, 2007, 1977, 1963). Others, however, advocate finding a more systematic way to evaluate dangerousness when decisions are to be made about commitment (Evans & Salekin, 2014; Falzer, 2011; Heilbrun & Erickson, 2007). They suggest instituting a process of risk assessment that would arrive at statements such as, “The patient is believed to have X likelihood of being violent to the following people or under the following conditions over Y period of time.” Proponents argue that this would be a more useful and appropriate way of deciding where and how people with psychological disorders should be treated.

**TRENDS IN CIVIL COMMITMENT** The flexibility of the involuntary commitment laws probably reached a peak in 1962. That year, in the case of Robinson v. California, the Supreme Court ruled that imprisoning people who suffered from drug addiction might violate the Constitution’s ban on cruel and unusual punishment, and it recommended involuntary civil commitment to a mental hospital as a more reasonable action. This ruling encouraged the civil commitment of many kinds of “social deviants.” In the years immediately following, civil commitment procedures granted far fewer rights to “defendants” than the criminal courts did (Holstein,
In addition, involuntarily committed patients found it particularly difficult to obtain release. During the late 1960s and early 1970s, reporters, novelists, civil libertarians, and others spoke out against the ease with which so many people were being unjustifiably committed to mental hospitals. As the public became more aware of these issues, state legislatures started to pass stricter standards about involuntary commitment (Pekkanen, 2007, 2002; Perlin, 2000). Some states, for example, spelled out specific types of behavior that a person had to show before he or she could be determined to be dangerous. Rates of involuntary commitment then declined and release rates rose. Fewer people are institutionalized through civil commitment procedures today than in the past.

Protecting Patients’ Rights Over the past two decades, court decisions and state and federal laws have significantly expanded the rights of patients with mental disorders, in particular the right to treatment and the right to refuse treatment (Lepping & Raveesh, 2014; Petrila, 2010; Weller, 2010).

How are people who have been institutionalized viewed and treated by other people in society today? The public often thinks that the term “dangerous to oneself” refers exclusively to those who are suicidal. There are, however, other ways that people may pose a danger to themselves, be in need of treatment, and be subject to civil commitment. This sequence of photos shows a man being attacked by a lion at the zoo after he crossed a barbed wire fence to “preach” to two of the animals.
Another important decision was handed down in 1975 by the Supreme Court in the case of O’Connor v. Donaldson. After being held in a Florida mental institution for more than 14 years, Kenneth Donaldson sued for release. Donaldson repeatedly had sought release and had been overruled by the institution’s psychiatrists. He argued that he and his fellow patients were receiving poor treatment, were being largely ignored by the staff, and were allowed little personal freedom. The Supreme Court ruled in his favor, fined the hospital’s superintendent, and said that such institutions must review patients’ cases periodically. The justices also ruled that the state cannot continue to institutionalize people against their will if they are not dangerous and are capable of surviving on their own or with the willing help of responsible family members or friends. In a later case of importance, Youngberg v. Romeo (1982), the Supreme Court further ruled that people committed involuntarily have a right to “reasonably nonrestrictive confinement conditions” as well as “reasonable care and safety.”

To help protect the rights of patients, Congress passed the Protection and Advocacy for Mentally Ill Individuals Act in 1986. This law set up protection and advocacy systems in all states and U.S. territories and gave public advocates who worked for patients the power to investigate possible abuse and neglect and to correct those problems legally.

In recent years, public advocates have argued that the right to treatment also should be extended to the tens of thousands of people with severe mental disorders who are repeatedly released from hospitals into ill-equipped communities. Many such people have no place to go and are unable to care for themselves, often winding up homeless or in prisons (Ogden, 2014; Althouse, 2010). A number of advocates are now suing federal and state agencies throughout the country, demanding that they fulfill the promises of the community mental health movement (see Chapter 15).

**HOW IS THE RIGHT TO REFUSE TREATMENT PROTECTED?** During the past two decades, the courts have also decided that patients, particularly those in institutions, have the right to refuse treatment (Craigie, 2011; Perlin, 2004, 2000). The courts have been reluctant to make a single general ruling on this right because there are so many different kinds of treatment, and a general ruling based on one of them might have unintended effects. Therefore, rulings usually target one specific treatment at a time.

Most of the right-to-refuse-treatment rulings center on biological treatments (Rolon & Jones, 2008). These treatments are easier to impose on patients without their cooperation than psychotherapy, and they often are more hazardous. For example, state rulings have consistently granted patients the right to refuse psychosurgery, the most irreversible form of physical treatment—and often the most dangerous.

Some states have also acknowledged a patient’s right to refuse electroconvulsive therapy (ECT), the treatment used in many cases of severe depression (see Chapter 8). However, the right-to-refuse issue is more complex with regard to ECT than to psychosurgery. ECT is very effective for many people with severe depression, but it can cause great upset and can also be misused. Today many states grant patients—particularly voluntary patients—the right to refuse ECT. Usually a patient must be informed fully about the nature of the treatment and must give written consent to it. A number of states continue to permit ECT to be forced on committed patients, whereas others require the consent of a close relative or other third party in such cases.

**BETWEEN THE LINES**

**No Right to Vote**

Thirty-nine states deny or place restrictions on the voting privileges of certain people with mental disorders. The wording in some of the state laws refers to the ineligible individuals as “incompetent,” “insane,” “incapacitated,” “idiot,” “lunatic,” and of “unsound mind.”

(NAMI, 2011; Bazelon Center, 2008; Tucker, 2007)
In the past, patients did not have the right to refuse psychotropic medications. As you have read, however, many psychotropic drugs are very powerful, and some produce effects that are unwanted and dangerous. As these harmful effects have become more apparent, some states have granted patients the right to refuse medication. Typically, these states require physicians to explain the purpose of the medication to patients and obtain their written consent. If a patient’s refusal is considered incompetent, dangerous, or irrational, the state may allow it to be overturned by an independent psychiatrist, medical committee, or local court (Rolon & Jones, 2008). However, the refusing patient is supported in this process by a lawyer or other patient advocate.

**WHAT OTHER RIGHTS DO PATIENTS HAVE?** Court decisions have protected still other patient rights over the past several decades. Patients who perform work in mental institutions, particularly private institutions, are now guaranteed at least a minimum wage. In addition, a district court ruled in 1974 that patients released from state mental hospitals have a right to aftercare and to an appropriate community residence, such as a group home, a right later confirmed by the Supreme Court in the 1999 case of Olmstead v. L.C. et al. And in the 1975 case of Dixon v. Weinberger, another district court ruled that people with psychological disorders should receive treatment in the least restrictive facility available. If an inpatient program at a community mental health center is available and appropriate, for example, then that is the facility to which they should be assigned, not a mental hospital.

**THE “RIGHTS” DEBATE** Certainly, people with psychological disorders have civil rights that must be protected at all times. However, many clinicians express concern that the patients’ rights rulings and laws may unintentionally deprive these patients of opportunities for recovery. Consider the right to refuse medication. If medications can help a patient with a severe mental disorder to recover, doesn’t the patient have the right to that recovery? If confusion causes the patient to refuse medication, can clinicians in good conscience delay medication while legal channels are cleared?

Despite such legitimate concerns, keep in mind that the clinical field has not always done an effective job of protecting patients’ rights. Over the years, many patients have been overmedicated and received improper treatments. Furthermore, one must ask whether the field’s present state of knowledge justifies clinicians’ overriding of patients’ rights. Can clinicians confidently say that a given treatment will help a patient? Can they predict when a treatment will have harmful effects? Since clinicians themselves often disagree, it seems appropriate for patients, their advocates, and outside evaluators to also play key roles in decision making.

**In What Other Ways Do the Clinical and Legal Fields Interact?**

Mental health and legal professionals may influence each other’s work in other ways as well. During the past 25 years, their paths have crossed in four key areas: malpractice suits, professional boundaries, jury selection, and psychological research of legal topics.

**Law in Psychology: Malpractice Suits** The number of malpractice suits against therapists has risen so sharply in recent years that clinicians have coined terms for the fear of being sued—“litigaphobia” and “litigastress.” Claims have been made against clinicians in response to a patient’s attempted suicide, sexual activity with a patient, failure to obtain informed consent for a treatment, negligent drug therapy, omission of drug therapy that would speed improvement, improper

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> **right to refuse treatment** The legal right of patients to refuse certain forms of treatment.

> **malpractice suit** A lawsuit charging a therapist with improper conduct in the course of treatment.
Improper termination of treatment was at issue in one highly publicized case back in 1985. A man being treated for alcohol-related depression was released from a state hospital in Alabama. Two and a half months later, he shot and killed a new acquaintance in a motel lounge. He was convicted of murder and sentenced to life in prison. The victim’s father, claiming negligence, filed a civil suit against a psychologist, physician, and social worker at the state hospital, and after two years of legal action a jury awarded him a total of almost $7 million. The state supreme court later overturned the verdict, saying that a state hospital is entitled to a certain degree of immunity in such cases.

Two investigators who studied the effects of this case found that the hospital had released 11 percent of its patients during the six months before the lawsuit was filed, 10 percent during the two years it was being litigated, but only 7 percent during the six months after the verdict (Brodsky & Poythress, 1990). Although judgments about a patient’s improvement are supposed to be made on their own merits, they were apparently being affected by a heightened fear of litigation at this hospital.

Similarly, a later study of 98 psychiatrists in northern England found that most of them were practicing “defensive medicine” at least some of the time—selecting certain treatments, tests, and procedures to protect themselves from criticism, rather than because such approaches were clearly best for their clients (Beezhold, 2002). Seventy-one of the psychiatrists reported that during the month preceding the study, they had taken some defensive action in their work, including admitting patients to hospitals overcautiously (21 percent) and placing hospitalized patients on higher levels of staff observation (29 percent). Clearly, malpractice suits, or the fear of them, can have significant effects on clinical decisions and practice, for better or for worse (Appelbaum, 2011; Feldman et al., 2005).

Law in Psychology: Professional Boundaries  Over the past two decades, the legislative and judicial systems have helped to change the boundaries that distinguish one clinical profession from another. In particular, they have given more authority to psychologists and blurred the lines that once separated psychiatry...
from psychology. A growing number of states, for example, are ruling that psychologists can admit patients to the state’s hospitals, a power previously held only by psychiatrists.

In 1991, with the blessing of Congress, the Department of Defense (DOD) started to reconsider the biggest difference of all between the practices of psychiatrists and psychologists—the authority to prescribe drugs, a role previously denied to psychologists. The DOD set up a trial training program for Army psychologists. Given the apparent success of this trial program, the American Psychological Association later recommended that all psychologists be allowed to attend a special educational program in prescription services and receive certification to prescribe medications if they pass (McGrath & Moore, 2010). New Mexico and Louisiana and the U.S. territory of Guam now do grant prescription privileges to psychologists who receive special pharmacology training (Melville, 2013).

As the action by the American Psychological Association suggests, the legislative and judicial systems do not simply take it upon themselves to interfere in the affairs of clinical professionals. Professional associations of psychologists, psychiatrists, and social workers actually lobby in state legislatures across the country for laws and decisions that may increase the authority of their members, a further demonstration of the way the mental health system interacts with other sectors of our society.

**Psychology in Law: Jury Selection** During the past 30 years, more and more lawyers have turned to clinicians for psychological advice in conducting trials (Crocker & Kovera, 2011; Hope, 2010). A new breed of clinical specialists, known as “jury specialists,” has evolved. They advise lawyers about which potential jurors are likely to favor their side and which strategies are likely to win jurors’ support during trials. The jury specialists make their suggestions on the basis of surveys, interviews, analyses of jurors’ backgrounds and attitudes, and laboratory simulations of upcoming trials. However, it is not clear that a clinician’s advice is more valid than a lawyer’s instincts or that the judgments of either are particularly accurate.

**Psychology in Law: Psychological Research of Legal Topics** Psychologists have sometimes conducted studies and developed expertise on topics of great importance to the criminal justice system. In turn, these studies influence how the system carries out its work. Psychological investigations of two topics, *eyewitness testimony* and *patterns of criminality*, have gained particular attention.

**EYEWITNESS TESTIMONY** In criminal cases, testimony by eyewitnesses is extremely influential. It often determines whether a defendant will be found guilty or not guilty. But how accurate is eyewitness testimony? This question has become urgent, as a troubling number of prisoners (many on death row) have had their convictions overturned after DNA evidence revealed that they could not have committed the crimes of which they had been convicted. It turns out that more than 75 percent of such wrongful convictions were based in large part on mistaken eyewitness testimony (Garrett, 2011; Hope, 2010).

While some witnesses may have reason to lie (for example, prosecutors may reduce an eyewitness’s own punishment in exchange for testimony), most eyewitnesses undoubtedly try to tell the truth about what or who they saw. Yet research indicates that eyewitness testimony can be highly unreliable, partly because most crimes are unexpected and fleeting and therefore not the sort of events remembered well (Houston et al., 2013; Kapardis, 2010; Roesch et al., 2010). During the crime, for example, lighting may be poor or other distractions may be present. 

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**Fear of litigation** Psychologists are not the only ones who fear litigation for providing help to others. It is becoming a worldwide concern. A woman who fell off this escalator at a department store in Shanghai, China, was left unattended despite the presence of numerous onlookers. The reason? Fear of litigation. Incidents of good Samaritans becoming victims of litigation have become more frequent in China and other countries.
Witnesses may have had other things on their minds, such as concern for their own safety or that of bystanders. Such concerns may greatly impair later memory.

In laboratory studies, researchers have found it easy to fool research participants who are trying to recall the details of an observed event simply by introducing misinformation (Morgan et al., 2013; Laney & Loftus, 2010). After a suggestive description by the researcher, stop signs can be transformed into yield signs, white cars into blue ones, and Mickey Mouse into Minnie Mouse (Pickel, 2004; Loftus, 2003). In addition, laboratory studies indicate that persons who are highly suggestible have the poorest recall of observed events (Liebman et al., 2002).

As for identifying actual perpetrators, research has found that accuracy is heavily influenced by the method used in identification (Garrett, 2011; Semmler & Brewer, 2010). The traditional police lineup, for example, is not always a highly reliable technique, and the errors that witnesses make when looking at lineups tend to stick (Wells et al., 2011; Wells, 2008). Researchers have also learned that witnesses’ confidence is not necessarily related to accuracy (Allwood, 2010; Ghetti et al., 2004). Witnesses who are “absolutely certain” may be no more correct in their recollections than those who are only “fairly sure.” Yet the degree of a witness’s confidence often influences whether jurors believe his or her testimony. In fact, judges often instruct jurors that they can use witness confidence as an indicator of accuracy (Greene & Ellis, 2007).

Psychological investigations into the memories of eyewitnesses have not yet undone the judicial system’s reliance on or respect for those witnesses’ testimony. Nor should it. The distance between laboratory studies and real-life events is often great, and the findings from such studies must be applied with care (Roesch et al., 2010). Still, eyewitness research has begun to make an impact. Studies of hypnosis and of its ability to create false memories, for example, have led most states to prohibit eyewitnesses from testifying about events or details if their recall of the events was initially helped by hypnosis.

**Psychological research** indicates that eyewitness testimony is often invalid. Here a woman talks to the man whom she had identified as her rapist back in 1984. DNA testing eventually proved that a different person had raped her, and the incorrectly identified man was released. In the meantime, however, he had served 11 years of a life sentence in prison.

**Misleading profile**

Police search for clues outside a Home Depot in Virginia in 2002, hoping to identify and capture the serial sniper who killed 10 people and terrorized residents throughout Washington, DC, Maryland, and Virginia. Psychological profiling in this case offered limited help and even misled the police in certain respects.

**PATTERNS OF CRIMINALITY** A growing number of television shows, movies, and books suggest that clinicians often play a major role in criminal investigations by providing police with psychological profiles of perpetrators—“He’s probably white, in his thirties, has a history of animal torture, has few friends, and is subject to emotional outbursts.” The study of criminal behavior patterns and of profiling has increased in recent years; however, it is not nearly as revealing or influential as the media and the arts would have us believe (Kocsis & Palermo, 2013; Salfati, 2011; Crighton, 2010).

On the positive side, researchers have gathered information about the psychological features of various criminals, and they have indeed found that perpetrators of particular kinds of crimes—serial murder or serial sexual assault, for example—frequently share a number of traits and background features (see PsychWatch on the next page). But while such traits are often present, they are not always present, and so applying profile information to a particular crime can be wrong and misleading. Increasingly, police are consulting psychological profilers, and this practice appears to be helpful as long as the limitations of profiling are recognized (Kocsis & Palermo, 2013; Salfati, 2011; Crighton, 2010).
A reminder of the limitations of profiling comes from the case of the snipers who terrorized the Washington, DC, area for three weeks in October 2002, shooting 10 people dead and seriously wounding 3 others. Most of the profiling done by FBI psychologists had suggested that the sniper was acting alone; it turned out that the attacks were conducted by a pair: a middle-aged man, John Allen Muhammad, and a teenage boy, Lee Boyd Malvo. Although profiles had suggested a young thrill-seeker, Muhammad was 41. Profilers had believed the attacker to be white, but neither Muhammad nor Malvo was white. The prediction of a male attacker was correct, but then again female serial killers are relatively rare.

...
What Ethical Principles Guide Mental Health Professionals?

Discussions of the legal and mental health systems may sometimes give the impression that clinicians as a group are uncaring and are considerate of patients’ rights and needs only when they are forced to be. This, of course, is not true. Most clinicians care greatly about their clients and strive to help them while at the same time respecting their rights and dignity (Pope & Vasquez, 2011). In fact, clinicians do not rely exclusively on the legislative and court systems to ensure proper and effective clinical practice. They also regulate themselves by continually developing and revising ethical guidelines for their work and behavior. Many legal decisions do nothing more than place the power of the law behind these already existing professional guidelines.

Each profession within the mental health field has its own code of ethics. The code of the American Psychological Association (2014, 2010, 2002) is typical. This code, highly respected by other mental health professionals and public officials, includes specific guidelines:

1. **Psychologists are permitted to offer advice** in self-help books, on DVDs, on television and radio programs, in newspaper and magazines, through mailed material, and in other places, provided they do so responsibly and professionally and base their advice on appropriate psychological literature and practices. Psychologists are bound by these same ethical requirements when they offer advice and ideas online, whether on individual Web pages, blogs, bulletin boards, or chat rooms. Internet-based professional advice has proved difficult to regulate, however, because the number of such offerings keeps getting larger and larger and so many advice-givers do not appear to have any professional training or credentials.

2. **Psychologists may not conduct fraudulent research, plagiarize the work of others, or publish false data.** During the past 30 years cases of scientific fraud or misconduct have been discovered in all of the sciences, including psychology. These acts have led to misunderstandings of important issues, taken scientific research in the wrong direction, and damaged public trust. Unfortunately, the impressions created by false findings may continue to influence the thinking of both the public and other scientists for years.

3. **Psychologists must acknowledge their limitations** with regard to patients who are disabled or whose gender, ethnicity, language, socioeconomic status, or sexual orientation differs from that of the therapist. This guideline often requires psychotherapists to obtain additional training or supervision, consult with more knowledgeable colleagues, or refer clients to more appropriate professionals.

4. **Psychologists who make evaluations and testify in legal cases must base their assessments on sufficient information and substantiate their findings appropriately.** If an adequate examination of the individual in question is not possible, psychologists must make clear the limited nature of their testimony.

5. **Psychologists may not take advantage of clients and students, sexually or otherwise.** This guideline relates to the widespread social problem of sexual harassment, as well as the problem of therapists who take sexual advantage of clients in therapy. The code specifically forbids a sexual relationship with a present or former therapy client for at least two years after the end of treatment—and even then such a relationship is permitted only in “the most unusual circumstances.” Furthermore, psychologists may not accept as clients people with whom they have previously had a sexual relationship.
Research has clarified that clients may suffer great emotional damage from sexual involvement with their therapists (Pope & Wedding, 2014; Pope & Vasquez, 2011). How many therapists actually have a sexual relationship with a client? On the basis of various surveys, reviewers have estimated that 4 to 5 percent of today’s therapists engage in some form of sexual misconduct with patients, down from 10 percent more than a decade ago.

Although the vast majority of therapists do not engage in sexual behavior of any kind with clients, their ability to control private feelings is apparently another matter. In surveys, more than 80 percent of therapists reported having been sexually attracted to a client, at least on occasion (Pope & Wedding, 2014; Pope & Vasquez, 2011; Pope et al., 2006). Although few of these therapists acted on their feelings, most of them felt guilty, anxious, or concerned about the attraction. Given such issues, it is not surprising that sexual ethics training is given high priority in many of today’s clinical training programs.

6. **Psychologists must adhere to the principle of confidentiality.** All of the state and federal courts have upheld laws protecting therapist confidentiality (Fisher, 2013; Nagy, 2011; Pope & Vasquez, 2011). For peace of mind and to ensure effective therapy, clients must be able to trust that their private exchanges with a therapist will not be repeated to others. There are times, however, when the principle of confidentiality must be compromised. A therapist in training, for example, must discuss cases on a regular basis with a supervisor, and clients must be informed that such discussions are taking place.

A second exception arises in cases of outpatients who are clearly dangerous. The 1976 case of *Tarasoff v. Regents of the University of California*, one of the most important cases to affect client–therapist relationships, concerned an outpatient at a University of California hospital. He had confided to his therapist that he wanted to harm his former girlfriend, Tanya Tarasoff. Several days after ending therapy, the former patient fulfilled his promise. He stabbed Tanya Tarasoff to death.

Should confidentiality have been broken in this case? The therapist, in fact, felt that it should. Campus police were notified, but the patient was released after some questioning. In their suit against the hospital and therapist, the victim’s parents argued that the therapist should have also warned them and their daughter that the patient intended to harm Ms. Tarasoff. The California Supreme Court agreed: “The protective privilege ends where the public peril begins.”

The current code of ethics for psychologists thus declares that therapists have a **duty to protect**—a responsibility to break confidentiality, even without the client’s consent, when it is necessary “to protect the client or others from harm.” Since the *Tarasoff* ruling, California’s courts further have held that therapists must also protect people who are close to a client’s intended victim and thus in danger. A child, for example, is likely to be at risk when a client plans to assault the child’s mother. In addition, the California courts have ruled that therapists must act to protect people even when information about the dangerousness of a client is received from the client’s family, rather than from the client. Many, but not all, states have adopted the California court rulings or similar ones, and a number have passed “duty to protect” bills that clarify the rules of confidentiality for therapists and protect them from certain civil suits (Weinstock et al., 2014; Sonne, 2012).

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**BETWEEN THE LINES**

**Illusion of Knowledge**

75% Percentage of psychologists who are misinformed about their legal responsibilities regarding potentially dangerous clients.

90% Percentage of same psychologists who feel confident that their legal knowledge in this realm is accurate.

*(Thomas, 2014)*
Mental Health, Business, and Economics

The legislative and judicial systems are not the only social institutions with which mental health professionals interact. The business and economic fields are two other sectors that influence and are influenced by clinical practice and study.

Bringing Mental Health Services to the Workplace

Untreated psychological disorders are, collectively, among the 10 leading categories of work-related disorders and injuries (Negrini et al., 2014; Brough & Biggs, 2010; Kemp, 1994). Almost one-third of all employees are estimated to experience psychological problems that are serious enough to affect their work (Larsen et al., 2010). Psychological problems contribute to 60 percent of all absenteeism from work, up to 90 percent of industrial accidents, and to 65 percent of work terminations. Alcohol abuse and other substance use disorders are particularly damaging. The business world has often turned to clinical professionals to help prevent and correct such problems. Two common means of providing mental health care in the workplace are employee assistance programs and problem-solving seminars.

Employee assistance programs, mental health services made available by a place of business, are run either by mental health professionals who work directly for a company or by outside mental health agencies (Pomaki et al., 2012; Merrick et al., 2011; Armour, 2006). Companies publicize such programs at the work site, educate workers about psychological dysfunctioning, and teach supervisors how to identify workers who are having psychological problems. Business leaders believe that employee assistance programs save them money in the long run by preventing psychological problems from interfering with work performance and by reducing employee insurance claims, although these beliefs have not undergone extensive testing (Wang, 2007).

Stress-reduction and problem-solving seminars are workshops or group sessions in which mental health professionals teach employees techniques for coping, solving problems, and handling and reducing stress (Ashcraft, 2012; Daw, 2001). Programs of this kind are just as likely to be aimed at high-level executives as at assembly-line workers. Often employees are required to attend such workshops, which may run for several days, and are given time off from their jobs to do so.

The Economics of Mental Health

You have already seen how economic decisions by the government may influence the clinical field’s treatment of people with severe mental disorders. For example, the desire of the state and federal governments to reduce costs was an important consideration in the country’s deinstitutionalization movement, which contributed to the premature release of hospital patients into the community. Economic decisions by government agencies may affect other kinds of clients and treatment programs as well.

As you read in Chapter 15, government funding for services to people with psychological disorders has risen sharply over the past five decades, from $1 billion in 1963 to around $171 billion today (Rampell, 2013; Gill, 2010; Redick et al., 1992). Around 30 percent of that money is spent on prescription drugs, but much of the rest is targeted for income support, housing subsidies, and other such expenses rather than direct mental health services (Feldman et al., 2014; Covell et al., 2011). The result is that government funding for mental health services is, in fact, insufficient. People with severe mental disorders are hit hardest by the funding shortage. The number of people on waiting lists for community-based services grew from 200,000 in 2002 to 393,000 in 2008 (Daly, 2010), and that number has continued to rise in recent years.

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**BETWEEN THE LINES**

Business and Mental Health

Between 2009 and 2012, U.S. pharmaceutical companies paid an estimated $4 billion to physicians for promotional speaking, research, consulting, travel, and meals. Half of the top earners were psychiatrists.

(Weber & Ornstein, 2012)
Government funding currently covers around two-thirds of all mental health services, leaving a mental health expense of tens of billions of dollars for individual patients and their private insurance companies (Rampell, 2013; Nordal, 2010; Mark et al., 2008, 2005). This large economic role of private insurance companies has had a significant effect on the way clinicians go about their work. As you’ll remember from Chapter 1, to reduce their expenses, most of these companies have developed managed care programs, in which the insurance company determines which therapists clients may choose from, the cost of sessions, and the number of sessions for which a client may be reimbursed (Lustig et al., 2013; Turner, 2013; Domino, 2012). These and other insurance plans may also control expenses through the use of peer review systems, in which clinicians who work for the insurance company periodically review a client’s treatment program and recommend that insurance benefits be either continued or stopped. Typically, insurers require reports or session notes from the therapist, often including intimate personal information about the patient.

As you also read in Chapter 1, many therapists and clients dislike managed care programs and peer reviews (Lustig et al., 2013; Turner, 2013; Scheid, 2010). They believe that the reports required of therapists breach confidentiality, even when efforts are made to protect anonymity, and that the importance of therapy in a given case is sometimes difficult to convey in a brief report. They also argue that the priorities of managed care programs inevitably shorten therapy, even if longer-term treatment would be advisable in particular cases. The priorities may also favor treatments that offer short-term results (for example, drug therapy) over more costly approaches that might yield more promising long-term improvement. As in the medical field, there are disturbing stories about patients who are prematurely cut off from mental health services by their managed care programs. In short, many clinicians fear that the current system amounts to regulation of therapy by insurance companies rather than by therapists.

Yet another major problem with insurance coverage in the United States—both managed care and other kinds of insurance programs—is that reimbursements for mental disorders tend to be lower than those for medical disorders, placing people with psychological difficulties at a distinct disadvantage (Abelson, 2013). As you have read, the government has tried to address this problem in recent years (see page 22). In 2008 Congress passed a federal parity law that directed insurance companies to provide equal coverage for mental and medical problems. In 2013, the Departments of Health and Human Services, Labor, and Treasury jointly issued a federal regulation that defined the principles of parity more clearly, and in 2014 the mental health provisions of the Affordable Care Act (ACA), commonly known as “Obamacare,” went into effect and extended the reach of the 2013 regulations still further (SAMHSA, 2014; Calmes & Pear, 2013; Pear, 2013). For example, the ACA designates mental health care as one of 10 types of “essential health benefits” that must be provided by all insurers. It further requires all health plans to provide preventive mental health services at no additional cost to clients and to allow new and continued membership to people with preexisting mental conditions. All of this is promising, but it is not yet clear whether such provisions will result in significantly better treatment for people with psychological problems.
Chapter 19

Technology and Mental Health

As you have seen throughout this book, today’s ever-changing technology has begun to have significant effects—both positive and negative—on the mental health field, and it will undoubtedly affect the field even more in the coming years (see MindTēch on the next page). Let’s review just a small sample of the ways that the mental health field has been affected by and dealt with technological advances.

New Triggers for Psychopathology

Our digital world provides new triggers for the expression of abnormal behavior. Many people who grapple with gambling disorder, for example, have found the ready availability of Internet gambling to be all too inviting (see page 419). Social networks, texting, and the Internet have become convenient tools for those who wish to stalk or bully others, express sexual exhibitionism, pursue pedophilic desires, or satisfy other paraphilias (see pages 565–566, 446). Similarly, some clinicians believe that violent video games may contribute to the development of antisocial behavior. And, in the opinion of many, constant texting, tweeting, and Internet browsing may help shorten people’s attention spans and establish a foundation for attention problems.

There is a growing recognition among clinical practitioners and researchers that social networking can contribute to psychological dysfunctioning in certain cases. On the positive side, research suggests that social network users in general maintain more close relationships and receive more social support than other people do (Hampton et al., 2011; Rainie et al., 2011). On the negative side, studies indicate that social networking sites may provide a new venue for peer pressure and social anxiety in some adolescents (Charles, 2011). The sites may, for example, cause some people to develop fears that others in their network will exclude them socially (see Figure 19–3). Similarly, clinicians worry that sites such as Facebook may lead shy or socially anxious people to withdraw from valuable face-to-face relationships.

New Forms of Psychopathology

Beyond providing new triggers for abnormal behavior, research indicates that today’s technology also is helping to produce new psychological disorders. One such disorder, sometimes called Internet addiction, is marked by excessive and dysfunctional levels...
New Ethics for a Digital Age

The American Psychological Association’s code of ethics states that psychologists who operate on the Internet (offer cybertherapy, for example) are bound by the same ethical requirements as those who operate more conventionally. That seems reasonable enough, except for one thing: Operating online opens up a world of brand-new ethical issues that the code of ethics does not even begin to cover.

Two leading clinical theorists, Kenneth Pope and Danny Wedding (2014), have spent the last decade compiling a list of ethical dilemmas and nightmares that can emerge as a by-product of therapists conducting therapy in the digital age. Let’s say, for example, that a therapist in Boston and a client in Atlanta use Skype to conduct therapy sessions. Seems straightforward enough, but it turns out that this arrangement opens the door to a number of complex legal and ethical questions. Is the Massachusetts-based therapist actually practicing without a license in Georgia? Should the therapist follow Massachusetts’ or Georgia’s laws regarding confidentiality, duty to protect, and other therapist requirements? What happens if the laws in the therapist’s state conflict with the laws in the client’s state? Is long-distance online therapy covered by the therapist’s malpractice insurance? And so on.

Many therapists believe that because they do not conduct cybertherapy, they are untouched by digital concerns. Yet those same therapists likely use computers to handle their clinical data—for example, to keep notes of therapy sessions, maintain client billing information, or score psychological tests. Most of them would be alarmed to know that the following breaches of privacy have occurred more than a few times (Pope & Wedding, 2014):

➤ A laptop containing confidential patient information is hacked or is stolen from an office or car trunk.
➤ A virus, worm, or other kind of malware infects a therapist’s computer and uploads confidential files to a Web site or to everyone listed in his or her address book.
➤ Someone reads a therapist’s laptop monitor—and obtains confidential information—while sitting next to the therapist in an airport or on a flight.
➤ A therapist e-mails a message containing confidential client information to a colleague, but accidentally sends it to the wrong e-mail address.
➤ A therapist sells a computer, not realizing that confidential information is still recoverable because a truly thorough form of scrubbing was not used.

The digital age in which therapists treat clients presents many new ethical concerns and potential problems. Certainly, the field’s code of ethics must address these issues sooner rather than later. So too must each individual therapist. As Pope and Wedding (2014) point out, “When we use digital devices to handle the most sensitive and private information about our clients, we must remember to live up to an ancient precept: First, do no harm.”
of texting, tweeting, networking, Internet browsing, e-mailing, blogging, online shopping, or online pornographic use. At least 1 percent of all people are thought to display this pattern, leading some clinical theorists to argue that it should be a category in the DSM (Yoo et al., 2014; Young & de Abreu, 2011). Indeed, as you read in Chapter 12, the framers of DSM–5 have suggested that one form of Internet addiction, Internet gaming disorder, be considered for possible inclusion in future revisions of the DSM.

Similarly, the Internet has brought a new exhibitionistic feature to certain kinds of abnormal behavior. For example, as you read in Chapter 9 (see page 288), a growing number of people now use YouTube to post videos of themselves engaging in self-cutting, an act that traditionally has been conducted in private.

**Cybertherapy**

As you have seen throughout this textbook, cybertherapy is growing as a treatment option by leaps and bounds (Carrard et al., 2011; Pope & Vasquez, 2011). It takes such forms as long-distance therapy between clients and therapists using Skype (see page 75), therapy offered by computer programs (page 75), treatment enhanced by the use of video game–like avatars and other virtual reality experiences (pages 84, 506, 193), and Internet-based support groups (page 75) (see MediaSpeak on the next page). Numerous Web sites offer useful mental health information, enabling people to better inform themselves, their friends, and their family members about psychological dysfunctioning and treatment options. In addition, of the hundreds of thousands of new apps created over the past five years, a number are devoted to helping people relax, cheering them up, or otherwise improving their psychological states (pages 24, 260). And, finally, many computer exercise programs—cognitive and physical—have been developed with the goal of improving both mental health (particularly, cognitive functioning and mood) and physical health (pages 616, 625–626, 631).

Unfortunately, as you have read, the cybertherapy movement also has some key limitations and problems. Along with the wealth of mental health information now available online comes an enormous amount of misinformation about psychological problems and their treatments, offered by people and sites that are far from knowledgeable (see page 75). The issue of quality control is also a major problem for Internet-based therapy, support groups, and the like, and there are now numerous antitreatment Web sites, such as the pro-Ana sites, that try to guide people away from seeking help for their psychological problems (see page 361). Research has yet to clarify exactly how influential such sites are. However, a quick browse through the Internet reveals how destructive their messages can be.

Clearly, the growing impact of technological change on the mental health field presents formidable challenges for clinicians and researchers alike. Few of the technological applications discussed throughout this book are well understood, and few have been subjected to comprehensive research. Yet, as we mentioned earlier, the relationship between technology and mental health is expected to grow precipitously in the coming years. It behooves everyone in the field to understand and be ready for this growth and its implications.
In the YouTube video, Liz Spikol is smiling and animated, the light glinting off her large hoop earrings. Deadpan, she holds up a diaper. It is not, she explains, a hygienic item for a giantess, but rather a prop to illustrate how much control people lose when they undergo electroconvulsive therapy, or ECT, as she did 12 years ago.

In other videos and blog postings, Ms. Spikol, a 39-year-old writer in Philadelphia who has bipolar disorder, describes a period of psychosis so severe she jumped out of her mother’s car and ran away like a scared dog.

In lectures across the country, Elyn Saks, a law professor and associate dean at the University of Southern California, recounts the florid visions she has experienced during her lifelong battle with schizophrenia—dancing ashtrays, houses that spoke to her—and hospitalizations where she was strapped down with leather restraints and force-fed medications.

Like many Americans who have severe forms of mental illness such as schizophrenia and bipolar disorder, Ms. Saks and Ms. Spikol are speaking candidly and publicly about their demons. Their frank talk is part of a conversation about mental illness (or as some prefer to put it, “extreme mental states”) that stretches from college campuses to community health centers, from YouTube to online forums.

“Until now, the acceptance of mental illness has pretty much stopped at depression,” said Charles Barber, a lecturer in psychiatry at the Yale School of Medicine. “But a newer generation, fueled by the Internet and other sophisticated delivery systems, is saying, ‘We deserve to be heard, too.’”

Just as gay-rights activists reclaimed the word queer as a badge of honor rather than a slur, these advocates proudly call themselves mad; they say their conditions do not preclude them from productive lives. Mad pride events, organized by loosely connected groups in at least seven countries including Australia, South Africa and the United States, draw thousands of participants. . . . Recent mad pride activities include a Mad Pride Cabaret in Vancouver, British Columbia; a Mad Pride March in Accra, Ghana; and a Bonkersfest in London that drew 3,000 participants. . . . In recent years, groups have started anti-stigma campaigns, and even the federal government embraces the message, with an ad campaign aimed at young adults to encourage them to support friends with mental illness. . . .

Ms. Spikol writes about her experiences with bipolar disorder in The Philadelphia Weekly, and posts videos on her blog, the Trouble With Spikol. . . . Thousands have watched her joke about her weight gain and loss of libido, and her giggle-punctuated portrayal of ECT. But another video shows her face pale and her eyes red-rimmed as she reflects on the dark period in which she couldn’t care for herself, or even shower. “I knew I was crazy but also sane enough to know that I couldn’t make myself sane,” she says in the video. . . .

Ms. Saks, the U.S.C. professor, who recently published a memoir, “The Center Cannot Hold: My Journey Through Madness,” has come to accept her illness. She manages her symptoms with a regimen that includes psychoanalysis and medication. But stigma, she said, is never far away. She said she waited until she had tenure at U.S.C. before going public with her experience. . . . Ms. Saks said she hopes to help others in her position, find tolerance, especially those with fewer resources. “I have the kind of life that anybody, mentally ill or not, would want: a good place to live, nice friends, loved ones,” she said. “For an unlucky person,” Ms. Saks said, “I’m very lucky.”

The actions of clinical researchers and practitioners not only influence and are influenced by other forces in society but also are closely tied to their personal needs and goals (see InfoCentral on the next page). You have seen that the human strengths, imperfections, wisdom, and clumsiness of clinical professionals may affect their theoretical orientations, their interactions with clients, and the kinds of clients with whom they choose to work. You have also seen how personal leanings may sometimes override professional standards and scruples and, in extreme cases, lead clinical scientists to commit research fraud and clinical practitioners to engage in sexual misconduct with clients.

Surveys of the mental health of therapists have found that as many as 84 percent report having been in therapy at least once (Pope & Wedding, 2014; Pope et al., 2006; Pope & Tabachnick, 1994). Their reasons are largely the same as those of other clients, with relationship problems, depression, and anxiety topping the list. And, like other people, therapists often are reluctant to acknowledge their psychological problems.

It is not clear why so many therapists have psychological problems. Perhaps it is because their jobs are highly stressful; research suggests that therapists often experience some degree of job burnout (Clay, 2011; Rosenberg & Pace, 2006). Or perhaps therapists are simply more aware of their own negative feelings or are more likely to pursue treatment for their problems. Alternatively, people with personal concerns may be more inclined to choose clinical work as a profession. Whatever the reason, clinicians bring to their work a set of psychological issues that may, along with other important factors, affect how they listen and respond to clients.

The science and profession of abnormal psychology seek to understand, predict, and change abnormal functioning. But we must not lose sight of the fact that mental health researchers and clinicians are human beings, living within a society of human beings, working to serve human beings. The mixture of discovery, misdirection, promise, and frustration that you have encountered throughout this book is thus to be expected. When you think about it, could the study and treatment of human behavior really proceed in any other way?

PUTTING IT…together

Operating Within a Larger System

At one time, clinical researchers and professionals conducted their work largely in isolation. Today their activities have numerous ties to the legislative, judicial, and economic systems, and to technological forces as well. One reason for this growing interconnectedness is that the clinical field has reached a high level of respect and acceptance in our society. Clinicians now serve millions of people in many ways. They have much to say about almost every aspect of society, from education to ecology, and are widely looked to as sources of expertise. When a field becomes so prominent, it inevitably affects how other institutions are run. It also attracts public scrutiny, and various institutions begin to keep an eye on its activities.

When people with psychological problems seek help from a therapist, they are entering a complex system consisting of many interconnected parts. Just as their personal problems have grown within a social structure, so will their treatment be affected by the various parts of a larger system—the therapist’s values and needs, legal and economic factors, societal attitudes, technological changes, and yet other forces. These many forces influence clinical research as well.

The effects of this larger system on an individual’s psychological needs can be positive or negative, like a family’s impact on each of its members. When the system
PERSONAL AND PROFESSIONAL ISSUES

Like everyone else, clinicians have personal needs, perspectives, goals, and problems, each of which may affect their work. Therapists typically try to minimize the impact of such variables on their interactions with clients—called countertransference by Freud. However, research suggests that, to at least some degree, personal therapist issues influence how clinicians deal with clients.

THE EARLY YEARS

Common events in the early lives of therapists
• Experiencing personal distress
• Witnessing the distress of others
• Observing the behaviors and emotions of others; becoming psychologically minded
• Reading
• Being in therapy
• Being a confidant to others
• Modeling the behavior of others

Top 5 reasons people become therapists
• help people
• understand and help oneself
• understand others
• intellectual stimulation
• professional autonomy

THE EMOTIONAL SIDE

Therapists’ fears regarding clients
- Might commit suicide: 97%
- Condition might worsen: 91%
- Colleagues might criticize their work: 88%
- Malpractice complaint: 66%

Therapists’ anger toward clients
- Expressed anger toward a client: 90%
- Angry fantasies regarding a client: 63%
- Expressed disappointment toward a client: 52%

ETHICS IN CLINICAL PRACTICE

Although the field’s code of ethics explicitly forbids it, some therapists engage in sexual relationships with their clients. This is the profession’s most egregious violation of trust and boundaries and typically causes significant psychological harm to clients.

Who has had a sexual relationship with a client?

Effects on Clients
- Ambivalence
- Guilt
- Emptiness and isolation
- Sexual confusion
- Inability to trust
- Confusion of roles and boundaries
- Emotional damage
- Suppressed rage
- Heightened risk of suicide
- Cognitive dysfunction

CLINICIANS IN THERAPY

Top qualities clinicians look for in choosing a therapist
- Competence
- Openness
- Warmth and caring
- Active therapeutic style
- Flexibility

CLINICAL CAREERS

How satisfied are clinical psychologists with their careers?

Private Practitioners
- Very satisfied: 38%
- Quite satisfied: 41%
- Slightly satisfied: 10%
- Slightly dissatisfied: 4%
- Quite dissatisfied: 5%
- Very dissatisfied: 3%

Academic Psychologists
- Very satisfied: 9%
- Quite satisfied: 3%
- Slightly satisfied: 21%
- Slightly dissatisfied: 4%
- Quite dissatisfied: 7%
- Very dissatisfied: 4%

How do clinical psychologists spend their professional time?

Psychotherapy: 56%
Research/writing: 29%
Teaching: 30%
Clinical supervision: 8%
Consultation: 4%
Administration: 16%

protects a client’s rights and confidentiality, for example, it is serving the client well. When economic, legal, or other societal forces limit treatment options, cut off treatment prematurely, or stigmatize a person, the system is adding to the person’s problems.

Because of the enormous growth and impact of the mental health profession in our society, it is important that we understand the profession’s strengths and weaknesses. As you have seen throughout this book, the field has gathered much knowledge, especially during the past several decades. What mental health professionals do not know and cannot do, however, still outweighs what they do know and can do. Everyone who turns to the clinical field—directly or indirectly—must recognize that it is young and imperfect. Society is vastly curious about behavior and often in need of information and help. What we as a society must remember, however, is that the field is still putting it all together.

**SUMMING UP**

- **LAW AND MENTAL HEALTH** The mental health profession interacts with the legislative and judicial systems in two key ways. First, clinicians help assess the mental stability of people accused of crimes. Second, the legislative and judicial systems help regulate mental health care. p. 636

- **CRIMINAL COMMITMENT** The punishment of people convicted of crimes depends on the assumption that individuals are responsible for their acts and are capable of defending themselves in court. Evaluations by clinicians may help judges and juries decide the culpability of defendants and sometimes result in criminal commitment.

  If defendants are judged to have been mentally unstable at the time they committed a crime, they may be found not guilty by reason of insanity and placed in a treatment facility rather than a prison. “Insanity” is a legal term, one defined by legislators, not by clinicians. In federal courts and about half the state courts, insanity is judged in accordance with the M’Naghten test, which holds that defendants were insane at the time of a criminal act if they did not know the nature or quality of the act or did not know right from wrong at the time they committed it. Other states use the broader American Law Institute test.

  The insanity defense has been criticized on several grounds, and some states have added an additional option, guilty but mentally ill. Defendants who receive this verdict are sentenced to prison with the proviso that they will also receive psychological treatment. Still another verdict option is guilty with diminished capacity. A related category consists of convicted sex offenders, who are considered in some states to have a mental disorder and are therefore assigned to treatment in a mental health facility.

  Regardless of their state of mind at the time of the crime, defendants may be found mentally incompetent to stand trial, that is, incapable of fully understanding the charges or legal proceedings that confront them. These defendants are typically sent to a mental hospital until they are competent to stand trial. pp. 636–645

- **CIVIL COMMITMENT** The legal system also influences the clinical profession. Courts may be called upon to commit noncriminals to mental hospitals for treatment, a process called civil commitment. Society allows involuntary commitment of people considered to be in need of treatment and dangerous to themselves or others. Laws governing civil commitment procedures vary from state to state, but a minimum standard of proof—clear and

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**BETWEEN THE LINES**

**33 Years Later**

Currently 59 years of age, John Hinckley is a patient at St. Elizabeths Hospital in Washington, DC. A federal judge has granted him furlough privileges, including 17-day visits to his mother’s home in Virginia each month. When away from his mother’s house during these visits, he is required to carry a GPS-equipped cell phone.

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**Psychological Research and an Important Court Decision**

To arrive at a decision in the case of Graham v. Florida (2010) the U.S. Supreme Court cited a large body of psychological research on the unformed character and cognitive limitations of adolescents and their special vulnerability to external influences. The court ruled that individuals under 18 years of age cannot be punished with life in prison without parole, except in cases of homicide.
convincing evidence of the necessity of commitment—has been defined by the Supreme Court. pp. 645–649

- **PROTECTING PATIENTS’ RIGHTS** The courts and legislatures significantly affect the mental health profession by specifying legal rights to which patients are entitled. The rights that have received the most attention are the right to treatment and the right to refuse treatment. pp. 649–651

- **OTHER CLINICAL–LEGAL INTERACTIONS** Mental health and legal professionals also cross paths in four other areas. First, malpractice suits against therapists have increased in recent years. Second, the legislative and judicial systems help define professional boundaries. Third, lawyers may solicit the advice of mental health professionals regarding the selection of jurors and case strategies. Fourth, psychologists may investigate legal phenomena such as eyewitness testimony and patterns of criminality. pp. 651–655

- **ETHICAL PRINCIPLES** Each clinical profession has a code of ethics. The psychologists’ code includes prohibitions against engaging in fraudulent research and against taking advantage of clients and students, sexually or otherwise. It also establishes guidelines for respecting patient confidentiality. The case of Tarasoff v. Regents of the University of California helped to determine the circumstances in which therapists have a duty to protect the client or others from harm and must break confidentiality. pp. 656–657

- **MENTAL HEALTH, BUSINESS, AND ECONOMICS** Clinical practice and study also intersect with the business and economic worlds. Clinicians often help to address psychological problems in the workplace, for example, through employee assistance programs and stress-reduction and problem-solving seminars.

  Reductions in government funding of clinical services have left much of the expense for these services to be paid by insurance companies. Private insurance companies are setting up managed care programs whose structure and reimbursement procedures influence and often reduce the duration and focus of therapy. Their procedures, which include peer review systems, may also compromise patient confidentiality and the quality of therapy services. pp. 658–659

- **TECHNOLOGY AND MENTAL HEALTH** The remarkable technological advances of recent times have affected the mental health field, just as they have affected all other fields and professions. In particular, these advances have contributed to new vehicles and triggers for psychopathology, new forms of psychopathology, and various kinds of cybertherapy. pp. 660–662

- **THE PERSON WITHIN THE PROFESSION** Mental health activities are affected by the personal needs, values, and goals of the human beings who provide the clinical services. These factors inevitably affect the choice, direction, and even quality of their work. p. 664
GLOSSARY

ABAB design A single-subject experimental design in which behavior is measured during a baseline period, after a treatment has been applied, after baseline conditions have been reintroduced, and after the treatment has been reintroduced. Also called a reversal design.

Abnormal psychology The scientific study of abnormal behavior undertaken to describe, predict, explain, and change abnormal patterns of functioning.

Acceptance and commitment therapy A cognitive-behavioral therapy that teaches clients to accept and be mindful of (i.e., just notice) their dysfunctional thoughts or worries.

Acetylcholine A neurotransmitter that has been linked to depression and dementia.

Acute stress disorder A disorder in which fear and related symptoms are experienced soon after a traumatic event and last less than a month.

Addiction Persistent, compulsive dependence on a substance or behavior.

Adjustment disorders Disorders characterized by clinical symptoms such as depressed mood or anxiety in response to significant stressors.

Affect An experience of emotion or mood.

Aftercare A program of post-hospitalization care and treatment in the community.

Agoraphobia An anxiety disorder in which a person is afraid to be in public places or situations from which escape might be difficult (or embarrassing) or help unavailable if panic-like symptoms were to occur.

Agranulocytosis A life-threatening drop in white blood cells. This condition is sometimes produced by the atypical antipsychotic drug clozapine.

Alcohol Any beverage containing ethyl alcohol, including beer, wine, and liquor.

Alcohol dehydrogenase An enzyme that breaks down alcohol in the stomach before it enters the blood.

Alcohol use disorder A pattern of behavior in which a person repeatedly abuses or depends on alcohol. Also known as alcoholism.

Alcoholics Anonymous (AA) A self-help organization that provides support and guidance for people with alcoholism.

Alcoholism A pattern of behavior in which a person repeatedly abuses or depends on alcohol. Also known as alcohol use disorder.

Alogia A decrease in speech or speech content; a symptom of schizophrenia. Also known as poverty of speech.

Alprazolam A benzodiazepine drug shown to be effective in the treatment of anxiety disorders. Marketed as Xanax.

Altruistic suicide Suicide committed by people who intentionally sacrifice their lives for the well-being of society.

Alzheimer’s disease The most common type of neurocognitive disorder, usually occurring after the age of 65, marked most prominently by memory impairment.

Amenorrhea The absence of menstrual cycles.

American Law Institute test A legal test for insanity that holds people to be insane at the time of committing a crime if, because of a mental disorder, they did not know right from wrong or could not resist an uncontrollable impulse to act.

Amnesia Loss of memory.

Amniocentesis A prenatal procedure used to test the amniotic fluid that surrounds the fetus for the possibility of birth defects.

Amphetamines Stimulant drugs that are manufactured in the laboratory.

Amphetamine psychosis A syndrome characterized by psychotic symptoms brought on by high doses of amphetamines. Similar to cocaine psychosis.

Amygdala A structure in the brain that plays a key role in emotion and memory.

Anxiety The central nervous system’s physiological and emotional response to a vague sense of threat or danger.

Anxiety disorder A disorder in which anxiety is a central symptom.

Anxiety sensitivity A tendency to focus on one’s bodily sensations, assess them illogically, and interpret them as harmful.

Anxiolytics Drugs that reduce anxiety.

Arbitrary inference An error in logic in which a person draws negative conclusions on the basis of little or even contrary evidence.

Asperger’s disorder One of the patterns found in autism spectrum disorder in which a person displays profound social impairment yet maintains a relatively high level of cognitive functioning and language skills.

Assertiveness training A cognitive-behavioral approach to increasing assertive behavior that is socially desirable.

Assessment The process of collecting and interpreting relevant information about a client or research participant.

Asthma A medical problem marked by narrowing of the trachea and bronchi, which results in shortness of breath, wheezing, coughing, and a choking sensation.

Asylum A type of institution that first became popular in the sixteenth century to provide care for persons with mental disorders. Most became virtual prisons.

Attention-deficit/hyperactivity disorder (ADHD) A disorder marked by the inability to focus attention, or overactive and impulsive behavior, or both.

Attribution An explanation of things we see going on around us that points to particular causes.

Atypical antipsychotic drugs A relatively new group of antipsychotic drugs whose biological action is different from that of the conventional antipsychotic drugs. Also known as second-generation antipsychotic drugs.
Auditory hallucination  A hallucination in which a person hears sounds or voices that are not actually present.

Augmentative communication system  A method for enhancing the communication skills of people with autism spectrum disorder, intellectual developmental disorder, or cerebral palsy by teaching them to point to pictures, symbols, letters, or words on a communication board or computer.

Aura  A warning sensation that may precede a migraine headache.

Autism spectrum disorder  A developmental disorder marked by extreme unresponsiveness to others, severe communication deficits, and highly repetitive and rigid behaviors, interests, and activities.

Autoerotic asphyxia  A fatal lack of oxygen that people may unintentionally produce while hanging, suffocating, or strangling themselves during masturbation.

Automatic thoughts  Numerous unpleasant thoughts that help to cause or maintain depression, anxiety, or other forms of psychological dysfunction.

Autonomic nervous system (ANS)  The network of nerve fibers that connect the central nervous system to all the other organs of the body.

Aversion therapy  A treatment in which clients are repeatedly presented with unpleasant stimuli while performing undesirable behaviors such as taking a drug.

Avoidant personality disorder  A personality disorder characterized by consistent discomfort and restraint in social situations, overwhelming feelings of inadequacy, and extreme sensitivity to negative evaluation.

Aversion therapy  A symptom of schizophrenia marked by apathy and an inability to start or complete a course of action.

Axon  A long fiber extending from the body of a neuron.

Barbiturates  One group of sedative-hypnotic drugs that reduce anxiety and help produce sleep.

Baroreceptors  Sensitive nerves in the blood vessels that are responsible for signaling the brain that blood pressure is becoming too high.

Baseline data  A person's initial response level on a test or scale.

Basic irrational assumptions  The inaccurate and inappropriate beliefs held by people with various psychological problems, according to Albert Ellis.

Battery  A series of tests, each of which measures a specific skill area.

B-cell  A lymphocyte that produces antibodies.

Behavioral medicine  A field that combines psychological and physical interventions to treat or prevent medical problems.

Behavioral model  A theoretical perspective that emphasizes behavior and the ways in which it is learned.

Behavioral therapy  A therapeutic approach that seeks to identify problem-causing behaviors and change them. Also known as behavior modification.

Behaviors  The responses an organism makes to its environment.

Bender Visual-Motor Gestalt Test  A neuropsychological test in which a subject is asked to copy a set of nine simple designs and later reproduce the designs from memory.

Benzodiazepines  The most common group of antianxiety drugs, which includes Valium and Xanax.

Bereavement  The process of working through the grief that one feels when a loved one dies.

Beta-amyloid protein  A small molecule that forms sphere-shaped deposits called senile plaques, linked to aging and Alzheimer's disease.

“Big Five” theory of personality  A leading theory that holds that personality can be effectively organized and described by five broad dimensions of personality—openness, conscientiousness, extraversion, agreeableness, and neuroticism.

Blunt design  An experiment in which participants do not know whether they are in the experimental or the control condition.

Blunted affect  A symptom of schizophrenia in which a person shows less emotion than most people.

Body dysmorphic disorder  A disorder in which individuals become preoccupied with the belief that they have certain defects or flaws in their physical appearance. The perceived defects or flaws are imagined or greatly exaggerated.

Borderline personality disorder  A personality disorder characterized by repeated instability in interpersonal relationships, self-image, and mood, and by impulsive behavior.

Brain circuits  Networks of brain structures that work together, triggering each other into action with the help of neurotransmitters.

Brain region  A distinct area of the brain formed by a large group of neurons.

Brain wave  The fluctuations of electrical potential that are produced by neurons in the brain.

Breathing-related sleep disorder  A sleep disorder in which sleep is frequently disrupted by a breathing problem, causing excessive sleepiness or insomnia.

Brief psychotic disorder  Psychotic symptoms that appear suddenly after a very stressful event or a period of emotional turmoil and last anywhere from a few hours to a month.

Brodmann Area 25  A brain structure whose abnormal activity has been linked to depression.

Bulimia nervosa  A disorder marked by frequent eating binges that are followed by forced vomiting or other extreme compensatory behaviors.

Binge-eating/purging-type anorexia nervosa  A type of anorexia nervosa in which people have eating binges but still lose excessive weight by forcing themselves to vomit after meals or by abusing laxatives or diuretics.

Biofeedback  A technique in which a client is given information about physiological reactions as they occur and learns to control the reactions voluntarily.

Biological challenge test  A procedure used to produce panic in participants or clients by having them exercise vigorously or perform some other potentially panic-inducing task in the presence of a researcher or therapist.

Biological model  The theoretical perspective that points to biological processes as the key to human behavior.

Biological therapy  The use of physical and chemical procedures to help people overcome psychological problems.

Biopsychosocial theories  Explanations that attribute the cause of abnormality to an interaction of genetic, biological, developmental, emotional, behavioral, cognitive, social, and societal influences.

Bipolar disorder  A disorder marked by alternating or intermixed periods of mania and depression.

Bipolar I disorder  A type of bipolar disorder marked by full manic and major depressive episodes.

Bipolar II disorder  A type of bipolar disorder marked by mild manic (hypomanic) and major depressive episodes.

Birth complications  Problematic biological conditions during birth that can affect the physical and psychological well-being of the child.

Caffeine  The world's most widely used stimulant, most often consumed in coffee.

Cannabis  Substance produced from the varieties of the hemp plant, Cannabis sativa. It causes a mixture of hallucinogenic, depressant, and stimulant effects.

Case manager  A community therapist who offers a full range of services for people
with schizophrenia or other severe disorders, including therapy, advice, medication, guidance, and protection of patients' rights.

**Case study** A detailed account of a person's life and psychological problems.

**Catatonia** A pattern of extreme psychomotor symptoms, found in some forms of schizophrenia, which may include catatonic stupor, rigidity, or posturing.

**Catatonic excitement** A form of catatonia in which a person moves excitedly, sometimes with wild waving of the arms and legs.

**Catatonic stupor** A symptom associated with schizophrenia in which a person becomes almost totally unresponsive to the environment, remaining motionless and silent for long stretches of time.

**Catharsis** The reliving of past repressed feelings in order to settle internal conflicts and overcome problems.

**Caudate nuclei** Structures in the brain, within the region known as the basal ganglia, that help convert sensory information into thoughts and actions.

**Central nervous system** The brain and spinal cord.

**Cerebellum** An area of the brain that coordinates movement in the body and perhaps helps control a person's ability to shift attention rapidly.

**Checking compulsion** A compulsion in which people feel compelled to check the same things over and over.

**Child abuse** The nonaccidental use of excessive physical or psychological force by an adult on a child, often aimed at hurting or destroying the child.

**Chlorpromazine** A phenothiazine drug commonly used for treating schizophrenia. Marketed as Thorazine.

**Chromosomes** The structures, located within a cell, that contain genes.

**Chronic headaches** Frequent intense aches in the head or neck that are not caused by another medical disorder.

**Circadian rhythm disorder** A sleep–wake disorder characterized by a mismatch between a person's sleep–wake pattern and the sleep–wake schedule of most other people.

**Circadian rhythms** Internal “clocks” consisting of repeated biological fluctuations.

**Cirrhosis** An irreversible condition, often caused by excessive drinking, in which the liver becomes scarred and begins to change in anatomy and functioning.

**Civil commitment** A legal process by which an individual can be forced to undergo mental health treatment.

**Clang** A rhyme used by some people with schizophrenia as a guide to forming thoughts and statements.

**Classical conditioning** A process of learning in which two events that repeatedly occur close together in time become tied together in a person's mind and so produce the same response.

**Classification system** A list of disorders, along with descriptions of symptoms and guidelines for making appropriate diagnoses.

**Cleaning compulsion** A common compulsion in which people feel compelled to keep cleaning themselves, their clothing, and their homes.

**Client-centered therapy** The humanistic therapy developed by Carl Rogers in which clinicians try to help clients by being accepting, empathizing accurately, and conveying genuineness.

**Clinical interview** A face-to-face encounter in which clinicians ask questions of clients, weigh their responses and reactions, and learn about them and their psychological problems.

**Clinical psychologist** A mental health professional who has earned a doctorate in clinical psychology.

**Clinical psychology** The study, assessment, treatment, and prevention of abnormal behavior.

**Clitoris** The female sex organ located in front of the urinary and vaginal openings. It becomes enlarged during sexual arousal.

**Clozapine** A commonly prescribed atypical antipsychotic drug.

**Cocaine** An addictive stimulant obtained from the coca plant. It is the most powerful natural stimulant known.

**Code of ethics** A body of principles and rules for ethical behavior, designed to guide decisions and actions by members of a profession.

**Cognition** The capacity to think, remember, and anticipate.

**Cognitive behavior** Thoughts and beliefs, many of which remain private.

**Cognitive-behavioral therapies** Therapy approaches that seek to help clients change both counterproductive behaviors and dysfunctional ways of thinking.

**Cognitive model** A theoretical perspective that emphasizes the process and content of thinking as causes of psychological problems.

**Cognitive therapy** A therapy developed by Aaron Beck that helps people identify and change the maladaptive assumptions and ways of thinking that help cause their psychological disorders.

**Cognitive triad** The three forms of negative thinking that theorist Aaron Beck theorizes lead people to feel depressed. The triad consists of a negative view of one's experiences, oneself, and the future.

**Coitus** Sexual intercourse.

**Communication disorders** Disorders characterized by marked impairment in language and/or speech.

**Community mental health center** A treatment facility that provides medication, psychotherapy, and emergency care to patients and coordinates treatment in the community.

**Community mental health treatment** A treatment approach that emphasizes community care.

**Comorbidity** The occurrence of two or more disorders in the same person.

**Compulsion** A repetitive and rigid behavior or mental act that persons feel driven to perform in order to prevent or reduce anxiety.

**Compulsive ritual** A detailed, often elaborate, set of actions that a person often feels compelled to perform, always in an identical manner.

**Computerized axial tomography (CT scan)** A composite image of the brain created by compiling X-ray images taken from many angles.

**Concordance** A statistical measure of the frequency with which family members (often both members of a pair of twins) have the same particular characteristic.

**Concurrent validity** The degree to which the measures gathered from one assessment tool agree with the measures gathered from other assessment techniques.

**Conditioned response (CR)** A response previously associated with an unconditional stimulus that comes to be produced by a conditioned stimulus.

**Conditioned stimulus (CS)** A previously neutral stimulus that comes to be associated with a nonneutral stimulus, and can then produce responses similar to those produced by the nonneutral stimulus.

**Conditioning** A simple form of learning.

**Conditions of worth** According to client-centered theorists, the internal standards by which a person judges his or her own lovability and acceptability, determined by the standards to which the person was held as a child.

**Conduct disorder** A disorder in which a child repeatedly violates the basic rights of others and displays aggression, characterized by symptoms such as physical cruelty to people or animals, the deliberate destruction of other people's property, and the commission of various crimes.

**Confabulation** A made-up description of one's experience to fill in a gap in one's memory.

**Confederate** An experimenter's accomplice, who helps create a particular impression in a study while pretending to be just another subject.

**Confidentiality** The principle that certain professionals will not divulge the information they obtain from a client.

**Confound** In an experiment, a variable other than the independent variable that is also acting on the dependent variable.

**Continuous amnesia** An inability to recall newly occurring events as well as certain past events.
**Control group** In an experiment, a group of participants who are not exposed to the independent variable.

**Conversion disorder** A disorder in which bodily symptoms affect voluntary motor and sensory functions, but the symptoms are inconsistent with known medical diseases.

**Conversion therapy** A treatment approach that attempts to change the sexual orientation of a person from homosexual or bisexual to heterosexual. Also called *reparative therapy*.

**Convulsion** A brain seizure.

**Coronary arteries** Blood vessels that surround the heart and are responsible for carrying oxygen to the heart muscle.

**Coronary heart disease** Illness of the heart caused by a blockage in the coronary arteries.

**Correlation** The degree to which events or characteristics vary along with each other.

**Correlation coefficient (r)** A statistical term that indicates the direction and the magnitude of a correlation, ranging from $-1.00$ to $+1.00$.

**Correlational method** A research procedure used to determine how much events or characteristics vary along with each other.

**Corticosteroids** A group of hormones, including cortisol, released by the adrenal glands at times of stress.

**Cortisol** A hormone released by the adrenal glands when a person is under stress.

**Counseling psychology** A mental health specialty similar to clinical psychology that offers its own graduate training program.

**Countertransference** A phenomenon of psychotherapy in which therapists’ own feelings, history, and values subtly influence the way they interpret a patient’s problems.

**Couple therapy** A therapy format in which the therapist works with two people who share a long-term relationship.

**Covert desensitization** Desensitization that focuses on imagining confrontations with the frightening objects or situations while in a state of relaxation.

**Covert sensitization** A behavioral treatment for eliminating unwanted behavior by pairing the behavior with unpleasant mental images.

**Crack** A powerful, ready-to-smoke freebase cocaine.

**C-reactive protein (CRP)** A protein that spreads throughout the body and causes inflammation and various illnesses and disorders.

**Cretinism** A disorder marked by intellectual deficiencies and physical abnormalities; caused by low levels of iodine in the mother’s diet during pregnancy.

**Creutzfeldt-Jakob disease** A form of neurocognitive disorder caused by a slow-acting virus that may live in the body for years before the disease unfolds.

**Criminal commitment** A legal process by which people accused of a crime are instead judged mentally unstable and sent to a mental health facility for treatment.

**Crisis intervention** A treatment approach that tries to help people in a psychological crisis view their situation more accurately, make better decisions, act more constructively, and overcome the crisis.

**Critical incident stress debriefing** Training in how to help victims of disasters or other horrifying events talk about their feelings and reactions to the traumatic incidents.

**Cross-tolerance** Tolerance that a person develops for a substance as a result of regularly using another substance similar to it.

**Culture** A people’s common history, values, institutions, habits, skills, technology, and arts.

**Culture-sensitive therapies** Approaches that are designed to address the unique issues faced by members of minority groups.

**Cyberbullying** The use of e-mail, texting, chat rooms, cell phones, or other digital devices to harass, threaten, or intimidate people.

**Cybertherapy** The use of computer technology, such as Skype or avatars, to provide therapy.

**Cyclothymic disorder** A disorder marked by numerous periods of hypomanic symptoms and mild depressive symptoms.

**Day center** A program that offers hospital-like treatment during the day only. Also known as a *day hospital*.

**Death dazer** A person who is ambivalent about the wish to die even as he or she attempts suicide.

**Death ignorer** A person who attempts suicide without recognizing the finality of death.

**Death initiator** A person who attempts suicide believing that the process of death is already under way and that he or she is simply quickening the process.

**Death seeker** A person who clearly intends to end his or her life at the time of a suicide attempt.

**Deep brain stimulation (DBS)** A treatment procedure for depression in which a pacemaker powers electrodes that have been implanted in Brodmann Area 25, thus stimulating that brain area.

**Deinstitutionalization** The discharge, begun during the 1960s, of large numbers of patients from long-term institutional care so that they might be treated in community programs.

**Déjà vu** The haunting sense of having previously seen or experienced a new scene or situation.

**Delayed ejaculation** A male dysfunction characterized by persistent inability to ejaculate or very delayed ejaculations during sexual activity with a partner.

**Delirium** A rapidly developing, acute disturbance in attention and orientation that makes it very difficult to concentrate and think in a clear and organized manner.

**Delirium tremens (DTs)** A dramatic withdrawal reaction experienced by some people with alcohol use disorder. It consists of confusion, clouded consciousness, and terrifying visual hallucinations.

**Delusion** A strange false belief firmly held despite evidence to the contrary.

**Delusion of control** The belief that one’s impulses, feelings, thoughts, or actions are being controlled by other people.

**Delusion of grandeur** The belief that one is a great inventor, historical figure, or other specially empowered person.

**Delusion of persecution** The belief that one is being plotted or discriminated against, spied on, slandered, threatened, attacked, or deliberately victimized.

**Delusion of reference** A belief that attaches special and personal meaning to the actions of others or to various objects or events.

**Delusional disorder** A disorder consisting of persistent, nonbizarre delusions that are not part of a schizophrenic disorder.

**Demonology** The belief that abnormal behavior results from supernatural causes such as evil spirits.

**Dendrite** An extension located at one end of a neuron that receives impulses from other neurons.

**Denial** An ego defense mechanism in which a person fails to acknowledge unacceptable thoughts, feelings, or actions.

**Dependent personality disorder** A personality disorder characterized by a pattern of clinging and obedience, fear of separation, and an ongoing need to be taken care of.

**Dependent variable** The variable in an experiment that is expected to change as the independent variable is manipulated.

**Depersonalization-derealization disorder** A dissociative disorder marked by the presence of persistent and recurrent episodes of depersonalization, derealization, or both.

**Depressant** A substance that slows the activity of the central nervous system and in sufficient dosages causes a reduction of tension and inhibitions.

**Depression** A low, sad state marked by significant levels of sadness, lack of energy, low self-worth, guilt, or related symptoms.

**Depressive disorders** The group of disorders marked by unipolar depression.

**Derailment** A common thinking disturbance in schizophrenia, involving rapid shifts from one topic of conversation to another. Also called *loose associations*.

**Desensitization** See *Systematic desensitization*.

**Desire phase** The phase of the sexual response cycle consisting of an urge to have sex, sexual fantasies, and sexual attraction.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Detoxification</td>
<td>Systematic and medically supervised withdrawal from a drug.</td>
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<td>Developmental coordination disorder</td>
<td>Disorder characterized by marked impairment in the development and performance of coordinated motor activities.</td>
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<tr>
<td>Deviance</td>
<td>Variance from common patterns of behavior.</td>
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<tr>
<td>Diagnosis</td>
<td>A determination that a person’s problems reflect a particular disorder.</td>
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<tr>
<td>Diagnostic and Statistical Manual of Mental Disorders (DSM)</td>
<td>The classification system for mental disorders developed by the American Psychiatric Association.</td>
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<tr>
<td>Dialectical behavior therapy</td>
<td>A therapy approach developed by psychologist Marsha Linehan to treat people with borderline personality disorder and other psychological disorders, consisting of cognitive-behavioral techniques in combination with various emotion regulation, mindfulness, humanistic, and other techniques.</td>
</tr>
<tr>
<td>Diathesis-stress view</td>
<td>The view that a person must first have a predisposition to a disorder and then be subjected to immediate psychosocial stress in order to develop the disorder.</td>
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<tr>
<td>Diazepam</td>
<td>A benzodiazepine drug, marketed as Valium.</td>
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<tr>
<td>Dichotomous thinking</td>
<td>Viewing problems and solutions in rigid “either/or” terms.</td>
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<tr>
<td>Diencephalon</td>
<td>A brain area consisting of the mammillary bodies, thalamus, and hypothalamus that plays a key role in transforming short-term to long-term memory, among other functions.</td>
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<tr>
<td>Directed masturbation training</td>
<td>A sex therapy approach that teaches women with disorders how to masturbate effectively and eventually reach orgasm during sexual interactions.</td>
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<tr>
<td>Disaster Response Network (DRN)</td>
<td>A network of thousands of volunteer mental health professionals who mobilize to provide free emergency psychological services at disaster sites throughout North America.</td>
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<tr>
<td>Displacement</td>
<td>An ego defense mechanism that channels unacceptable id impulses toward another, safer substitute.</td>
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<td>Disruptive mood dysregulation disorder</td>
<td>A childhood disorder marked by severe recurrent temper outbursts along with a persistent irritable or angry mood.</td>
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<tr>
<td>Dissociative amnesia</td>
<td>A dissociative disorder marked by an inability to recall important personal events and information.</td>
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<tr>
<td>Dissociative disorders</td>
<td>A group of disorders in which some parts of one's memory or identity seem to be dissociated, or separated, from other parts of one's memory or identity.</td>
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<tr>
<td>Dissociative fugue</td>
<td>A form of dissociative amnesia in which a person travels to a new location and may assume a new identity, simultaneously forgetting his or her past.</td>
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<tr>
<td>Dissociative identity disorder</td>
<td>A disorder in which a person develops two or more distinct personalities. Also known as multiple personality disorder.</td>
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<tr>
<td>Disulfiram (Antabuse)</td>
<td>An antagonist drug used in treating alcohol abuse or dependence.</td>
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<tr>
<td>Dopamine</td>
<td>The neurotransmitter whose high activity has been shown to be related to schizophrenia.</td>
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<tr>
<td>Dopamine hypothesis</td>
<td>The theory that schizophrenia results from excessive activity of the neurotransmitter dopamine.</td>
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<tr>
<td>Double-bind hypothesis</td>
<td>A theory that some parents repeatedly communicate pairs of messages that are mutually contradictory, helping to produce schizophrenia in their children.</td>
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<tr>
<td>Double-blind design</td>
<td>Experimental procedure in which neither the participant nor the experimenter knows whether the participant has received the experimental treatment or a placebo.</td>
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<tr>
<td>Down syndrome</td>
<td>A form of intellectual disability caused by an abnormality in the twenty-first chromosome.</td>
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<tr>
<td>Dream</td>
<td>A series of ideas and images that form during sleep.</td>
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<tr>
<td>Drug</td>
<td>Any substance other than food that affects the body or mind.</td>
</tr>
<tr>
<td>Drug maintenance therapy</td>
<td>An approach to treating substance dependence in which clients are given legally and medically supervised doses of the drug on which they are dependent or a substitute drug.</td>
</tr>
<tr>
<td>Drug therapy</td>
<td>The use of psychotropic drugs to reduce the symptoms of psychological disorders.</td>
</tr>
<tr>
<td>Durham test</td>
<td>A legal test for insanity that holds people to be insane at the time they committed a crime if their act was the result of a mental disorder or defect.</td>
</tr>
<tr>
<td>Duty to protect</td>
<td>The principle that therapists must break confidentiality in order to protect a person who may be the intended victim of a client.</td>
</tr>
<tr>
<td>Dyslexia</td>
<td>A type of specific learning disorder in which people show a marked impairment in the ability to recognize words and to comprehend what they read.</td>
</tr>
<tr>
<td>Dyssomnias</td>
<td>Sleep–wake disorders, such as insomnia disorder and hypersomnolence disorder, in which the amount, quality, or timing of sleep is disturbed.</td>
</tr>
<tr>
<td>Dysphymia</td>
<td>A pattern of persistent depressive disorder that is chronic but less severe and less disabling than repeated episodes of major depression.</td>
</tr>
<tr>
<td>Eccentric</td>
<td>A person who deviates from conventional norms in odd, irregular, or even bizarre ways, but is not displaying a psychological disorder.</td>
</tr>
<tr>
<td>Echolalia</td>
<td>A symptom of autism or schizophrenia in which a person responds to statements by repeating the other person’s words.</td>
</tr>
<tr>
<td>Ecstasy (MDMA)</td>
<td>A drug chemically related to amphetamines and hallucinogens, used illicitly for its euphoric and hallucinogenic effects.</td>
</tr>
<tr>
<td>Ego</td>
<td>According to Freud, the psychological force that employs reason and operates in accordance with the reality principle.</td>
</tr>
<tr>
<td>Ego defense mechanisms</td>
<td>According to psychoanalytic theory, strategies developed by the ego to control unacceptable id impulses and to avoid or reduce the anxiety they arouse.</td>
</tr>
<tr>
<td>Ego theory</td>
<td>The psychodynamic theory that emphasizes the ego and considers it an independent force.</td>
</tr>
<tr>
<td>Egoistic suicide</td>
<td>Suicide committed by people over whom society has little or no control, people who are not concerned with the norms or rules of society.</td>
</tr>
<tr>
<td>Eidetic imagery</td>
<td>A strong visual image of an object or scene that persists in some persons long after the object or scene is removed.</td>
</tr>
<tr>
<td>Ejaculation</td>
<td>Contractions of the muscles at the base of the penis that cause sperm to be ejected.</td>
</tr>
<tr>
<td>Electra complex</td>
<td>According to Freud, the pattern of desires all girls experience during the phallic stage, in which they develop a sexual attraction to their father.</td>
</tr>
<tr>
<td>Electroconvulsive therapy (ECT)</td>
<td>A treatment for depression in which electrodes attached to a patient's head send an electrical current through the brain, causing a seizure.</td>
</tr>
<tr>
<td>Electroencephalograph (EEG)</td>
<td>A device that records electrical impulses in the brain.</td>
</tr>
<tr>
<td>Electromyograph (EMG)</td>
<td>A device that provides feedback about the level of muscular tension in the body.</td>
</tr>
<tr>
<td>Emergency commitment</td>
<td>The temporary commitment to a mental hospital of a patient who is behaving in a bizarre or violent way.</td>
</tr>
<tr>
<td>Empirically supported treatment</td>
<td>A movement in the clinical field that seeks to identify which therapies have received clear research support for each disorder, to develop corresponding treatment guidelines, and to spread such information to clinicians. Also known as evidence-based treatment.</td>
</tr>
<tr>
<td>Employee assistance program</td>
<td>A mental health program offered by a business to its employees.</td>
</tr>
<tr>
<td>Encopresis</td>
<td>A disorder characterized by repeated defecating in inappropriate places, such as one’s clothing.</td>
</tr>
<tr>
<td>Endocrine system</td>
<td>The system of glands located throughout the body that help control important activities such as growth and sexual activity.</td>
</tr>
<tr>
<td>Endogenous depression</td>
<td>A depression that appears to develop without external reasons.</td>
</tr>
</tbody>
</table>
and is assumed to be caused by internal factors.

**Endorphins** Neurotransmitters that help relieve pain and reduce emotional tension. They are sometimes referred to as the body's own opioids.

**Emmeshed family pattern** A family system in which members are overinvolved with each other's affairs and overconcerned about each other's welfare.

**Enuresis** A disorder marked by repeated bed-wetting or wetting of one's clothes.

**Epidemiological study** A study that measures the incidence and prevalence of a disorder in a given population.

**Erectile disorder** A dysfunction in which a man persistently fails to attain or maintain an erection during sexual activity.

**Ergot alkaloid** A naturally occurring compound from which LSD is derived.

**Essential hypertension** High blood pressure caused by a combination of psychosocial and physiological factors.

**Estrogen** The primary female sex hormone.

**Ethyl alcohol** The chemical compound in all alcoholic beverages that is rapidly absorbed into the blood and immediately begins to affect the person's functioning.

**Evoked potentials** The brain response patterns recorded on an electroencephalograph while a person performs a task such as observing a flashing light.

**Excitation phase** The phase of the sexual response cycle marked by changes in the pelvic region, general physical arousal, and increases in heart rate, muscle tension, blood pressure, and rate of breathing.

**Excoriation disorder** A disorder in which persons repeatedly pick at their skin, resulting in significant sores or wounds. Also called skin-picking disorder.

**Exhibitionistic disorder** A paraphilic disorder in which persons have repeated sexually arousing or fantasies about exposing their genitals to others, and either act on these urges with nonconsenting individuals or experience clinically significant distress or impairment.

**Existential anxiety** According to existential theorists, a universal fear of the limits and responsibilities of one's existence.

**Existential model** The theoretical perspective that human beings are born with the total freedom either to face up to one's existence and give meaning to one's life or to shrink from that responsibility.

**Existential therapy** A therapy that encourages clients to accept responsibility for their lives and to live with greater meaning and value.

**Exorcism** The practice, common in early societies, of treating abnormality by coaxing evil spirits to leave the person's body.

**Experiment** A research procedure in which a variable is manipulated and the effect of the manipulation is observed.

**Experimental group** In an experiment, the participants who are exposed to the independent variable under investigation.

**Exposure and response prevention** A behavioral treatment for obsessive-compulsive disorder that exposes a client to anxiety-arousing thoughts or situations and then prevents the client from performing his or her compulsive acts. Also called exposure and ritual prevention.

**Exposure treatments** Behavioral treatments in which persons are exposed to the objects or situations they dread.

**Expressed emotion** The general level of criticism, disapproval, hostility, and intrusiveness expressed in a family. People recovering from schizophrenia are considered more likely to relapse if their families rate high in expressed emotion.

**External validity** The degree to which the results of a study may be generalized beyond that study.

**Extrapyramidal effects** Unwanted movements, such as severe shaking, bizarre-looking grimaces, twisting of the body, and extreme restlessness, sometimes produced by conventional antipsychotic drugs.

**Eye movement desensitization and reprocessing (EMDR)** An exposure treatment in which clients move their eyes in a rhythmic manner from side to side while flooding their minds with images of objects and situations they ordinarily avoid.

**Factitious disorder** A disorder in which a person feigns or induces symptoms, typically for the purpose of assuming the role of a sick person.

**Family pedigree study** A research design in which investigators determine how many and which relatives of a person with a disorder have the same disorder.

**Family systems theory** A theory that views the family as a system of interacting parts whose interactions exhibit consistent patterns and unstated rules.

**Family therapy** A therapy format in which the therapist meets with all members of a family and helps them to change in therapeutic ways.

**Fantasy** An ego defense mechanism in which a person uses imaginary events to satisfy unacceptable impulses.

**Fear** The central nervous system's physiological and emotional response to a serious threat to one's well-being.

**Fear hierarchy** A list of objects or situations that frighten a person, starting with those that are slightly feared and ending with those that are feared greatly; used in systematic desensitization.

**Female orgasmic disorder** A female dysfunction marked by a persistent reduction or lack of interest in sex and low sexual activity, as well as, in some cases, limited excitement and few sexual sensations during sexual activity.

**Fetal alcohol syndrome** A cluster of problems in a child, including low birth weight, irregularities in the hands and face, and intellectual deficits, caused by excessive alcohol intake by the mother during pregnancy.

**Fetishistic disorder** A paraphilic disorder consisting of recurrent and intense sexual urges, fantasies, or behaviors that involve the use of a nonliving object or nongenital part, often to the exclusion of all other stimuli, accompanied by significant distress or impairment.

**Fixation** According to Freud, a condition in which the id, ego, and superego do not mature properly and are frozen at an early stage of development.

**Flashback** The recurrence of LSD-induced sensory and emotional changes long after the drug has left the body, or, in posttraumatic stress disorder, the reexperiencing of past traumatic events.

**Flat affect** A symptom of schizophrenia in which the person shows almost no emotion at all.

**Flooding** A treatment for phobias in which clients are exposed repeatedly and intensively to a feared object and made to see that it is actually harmless.

**Forensic psychology** The branch of psychology concerned with intersections between psychological practice and research and the judicial system. Also related to the field of forensic psychiatry.

**Formal thought disorder** A disturbance in the production and organization of thought.

**Free association** A psychodynamic technique in which the patient describes any thought, feeling, or image that comes to mind, even if it seems unimportant.

**Freebase** A technique for ingesting cocaine in which the pure cocaine basic alkaloid is chemically separated from processed cocaine, vaporized by heat from a flame, and inhaled through a pipe.

**Free-floating anxiety** Chronic and persistent feelings of anxiety that are not clearly attached to a specific, identifiable threat.

**Frotteuristic disorder** A paraphilic disorder in which a person has repeated and intense sexual urges or fantasies that involve touching and rubbing against a nonconsenting person, and either acts on these urges with nonconsenting individuals or experiences clinically significant distress or impairment.

**Functional magnetic resonance imaging (fMRI)** A neuroimaging technique used to visualize internal functioning of the brain or body.
Fusion The final merging of two or more subpersonalities in multiple personality disorder.

GABA See Gamma-aminobutyric acid.

Gambling disorder A disorder marked by persistent and recurrent gambling behavior, leading to a range of life problems.

Gamma-aminobutyric acid (GABA) A neurotransmitter whose low activity has been linked to generalized anxiety disorder.

Glia Brain cells that support the neurons.

Grief The reaction a person experiences when a loved one is lost.

Glossary:

Group home A special home where people with disorders or disabilities live and are taught self-help, living, and working skills.

Group therapy A therapy format in which a group of people with similar problems meet together with a therapist to work on those problems.

Guided participation A modeling technique in which a client systematically observes and imitates the therapist while the therapist confronts feared items.

Guilty but mentally ill A verdict stating that defendants are guilty of committing a crime but are also suffering from a mental illness that should be treated during their imprisonment.

Guilty with diminished capacity A legal defense argument that states that because of limitations posed by mental dysfunctioning, a defendant could not have intended to commit a particular crime and thus should be convicted of a lesser crime.

Halfway house A residence for people with schizophrenia or other severe problems, often staffed by paraprofessionals. Also known as a group home or crisis house.

Hallucination The experiencing of imagined sights, sounds, or other perceptions in the absence of external stimuli.

Hallucinogen A substance that causes powerful changes primarily in sensory perceptions and producing illusions and hallucinations. Also called a psychedelic drug.

Hallucinosis A form of intoxication caused by hallucinogens, consisting of perceptual distortions and hallucinations.

Hardness A set of positive attitudes and reactions in response to stress.

Health maintenance The principle that young adults should act to promote their physical and mental health to best prepare for the aging process. Also called wellness.

Helper T-cell A lymphocyte that identifies foreign invaders and then both multiplies and triggers the production of other kinds of immune cells.

Heroin One of the most addictive substances derived from opium.

High The pleasant feeling of relaxation and euphoria that follows the rush from certain recreational drugs.

Hippocampus A brain area located below the cerebral cortex that is involved in memory.

Histrionic personality disorder A personality disorder in which an individual displays a pattern of excessive emotionality and attention seeking. Once called hysterical personality disorder.

Hoarding disorder A disorder in which people feel compelled to save items and experience significant distress if they try to discard them, resulting in an excessive accumulation of items and possessions.

Hopelessness A pessimistic belief that one's present circumstances, problems, or mood will not change.

Hormones The chemicals released by endocrine glands into the bloodstream.

Humanistic model The theoretical perspective that human beings are born with a natural inclination to be friendly, cooperative, and constructive and are driven to self-actualize.

Humanistic therapy A system of therapy in which clinicians try to help clients look at themselves accurately and acceptingly so that they can fulfill their positive inborn potential.

Humors According to the Greeks and Romans, bodily chemicals that influence mental and physical functioning.

Huntington's disease An inherited disease, characterized by progressive problems in cognition, emotion, and movement, which results in neurocognitive disorder.

Hypersomnolence disorder A sleep-wake disorder characterized by an extreme need for extra sleep and feelings of excessive sleepiness.

Hypertension Chronic high blood pressure.

Hypnosis A sleeplike suggestible state during which a person can be directed to act in unusual ways, to experience unusual sensations, to remember seemingly forgotten events, or to forget remembered events.

Hypnotic amnesia Loss of memory produced by hypnotic suggestion.

Hypnotic therapy A treatment in which the patient undergoes hypnosis and is then guided to recall forgotten events or perform other therapeutic activities. Also known as hypnotherapy.

Hypnotism A procedure that places people in a trance-like mental state during which they become extremely suggestible.

Hypoactive sexual desire disorder A disorder marked by a lack of interest in sex.

Hypochondriasis A somatoform disorder in which people mistakenly fear that minor changes in their physical functioning indicate a serious disease. Now known as illness anxiety disorder.

Hypomanic episode An episode of mania in which the symptoms cause relatively little impairment.

Hypomanic pattern A pattern in which a person displays symptoms of mania, but the symptoms are less severe and cause less impairment than those of a manic episode.

Hypothalamic-pituitary-adrenal (HPA) pathway One route by which the brain and body produce arousal and fear.

Hypothalamus A part of the brain that helps maintain various bodily functions, including eating and hunger.

Hypothesis A hunch or prediction that certain variables are related in certain ways.
Hypoxophilia A pattern in which people strangle or smother themselves, or ask their partners to strangle or smother them, to increase their sexual pleasure.

Hysteria A term once used to describe what are now known as conversion disorder, somatization disorder, and pain disorder associated with psychological factors.

Hysterical disorder A disorder in which physical functioning is changed or lost, without an apparent physical cause.

Iatrogenic Produced or caused inadvertently by a clinician.

Id According to Freud, the psychological force that produces instinctual needs, drives, and impulses.

Ideas of reference Beliefs that unrelated events pertain to oneself in some important way.

Identification Unconsciously incorporating the values and feelings of one’s parents and fusing them with one’s identity. Also, an ego defense mechanism in which a person takes on the values and feelings of a person who is causing them anxiety.

Idiographic understanding An understanding of the behavior of a particular individual.

Illness anxiety disorder A disorder in which people are chronically anxious about and preoccupied with the notion that they have or are developing a serious medical illness, despite the absence of somatic symptoms. Previously known as hypochondriasis.

Illogical thinking According to cognitive theories, illogical ways of thinking that may lead to self-defeating conclusions and psychological problems.

Immune system The body’s network of activities and cells that identify and destroy antigens and cancer cells.

Inappropriate affect Display of emotions that are unsuited to the situation; a symptom of schizophrenia.

Incest Sexual relations between close relatives.

Incidence The number of new cases of a disorder occurring in a population over a specific period of time.

Independent variable The variable in an experiment that is manipulated to determine whether it has an effect on another variable.

Individual therapy A therapeutic approach in which a therapist sees a client alone for sessions that may last from 15 minutes to 2 hours.

Informed consent The requirement that researchers provide sufficient information to participants about the purpose, procedure, risks, and benefits of a study.

Insanity defense A legal defense in which a person charged with a criminal offense claims to be not guilty by reason of insanity at the time of the crime.

Insomnia Difficulty falling or staying asleep.

Insomnia disorder A sleep–wake disorder characterized by severe difficulty falling asleep or maintaining sleep at least three nights per week.

Institutional Review Board (IRB) An ethics committee formed in a research facility that is empowered to protect the rights and safety of human research participants. It reviews and may require changes in each proposed study at the facility before approving or disapproving the study.

Integrity test A test that is designed to measure whether the test taker is generally honest or dishonest.

Intellectual disability (ID) A disorder marked by intellectual functioning and adaptive behavior that are well below average. Previously called mental retardation.

Intelligence quotient (IQ) A score derived from intelligence tests that theoretically represents a person’s overall intellectual capacity.

Intelligence test A test designed to measure a person’s intellectual ability.

Intertreatment explosive disorder An impulse-control disorder in which people periodically fail to resist aggressive impulses and commit serious assaults on others or destroy property.

Internal validity The accuracy with which a study can pinpoint one of various possible factors as the cause of a phenomenon.

International Classification of Diseases (ICD) The classification system for medical and mental disorders that is used by the World Health Organization.

Internet gaming disorder A disorder marked by persistent, recurrent, and excessive Internet activity, particularly gaming. Recommended for further study by the DSM study group.

Interpersonal psychotherapy (IPT) A treatment for unipolar depression that is based on the belief that clarifying and helping lead to recovery.

Interrater reliability A measure of the reliability of a test or of research results in which the consistency of evaluations across different judges is assessed. Also called interjudge reliability.

Intoxication A cluster of undesirable behavioral or psychological changes, such as slurred speech or mood changes, that may develop during or shortly after the ingestion of a substance.

In vivo desensitization Desensitization that makes use of actual objects or situations, as opposed to imagined ones.

Ion An atom or group of atoms that has a positive or negative electrical charge.

Irresistible impulse test A legal test for insanity that holds people to be insane at the time they committed a crime if they were driven to do so by an uncontrollable “fit of passion.”

Isolation An ego defense mechanism in which people unconsciously isolate and disown undesirable and unwanted thoughts, experiencing them as foreign intrusions.

Kleptomania An impulse-control disorder characterized by the recurrent failure to resist impulses to steal objects not needed for personal use or monetary value.

Korsakoff’s syndrome An alcohol-related disorder marked by extreme confusion, memory impairment, and other neurological symptoms.

Latent content The symbolic meaning behind a dream’s content.

Lateral hypothalamus (LH) A brain region that produces hunger when activated.

L-dopa A drug used in the treatment of Parkinson’s disease, a disease in which dopamine is low.

Learned helplessness The perception, based on past experiences, that one has no control over one’s reinforcements.

Libido The sexual energy that fuels the id.

Life change units (LCUs) A system for measuring the stress associated with various life events.

Light therapy A treatment for seasonal affective disorder in which patients are exposed to extra light for several hours. Also called phototherapy.

Lithium A metallic element that occurs in nature as a mineral salt and is an effective treatment for bipolar disorders.

Lobotomy Psychsurgery in which a surgeon cuts the connections between the brain’s frontal lobes and the lower centers of the brain.

Localized amnesia An inability to recall any of the events that occurred over a limited period of time.

Locus ceruleus A small area of the brain that seems to be active in the regulation of emotions. Many of its neurons use norepinephrine.

Longitudinal study A study that observes the same participants on many occasions over a long period of time.

Long-term care Extended personal and medical support provided to elderly and other persons who may be impaired. It may range from partial support in a supervised apartment to intensive care at a nursing home.

Long-term memory The memory system that contains all the information that a person has stored over the years.

Loose associations A common thinking disturbance in schizophrenia, characterized by...
Glossary:

**Self-stimulation of the genitals** A behavioral treatment in which a client masturbates for a very long period of time while fantasizing in detail about a paraphilic object. The procedure is expected to produce a feeling of boredom that becomes linked to the object.

**Mean** The average of a group of scores.

**Meditation** A technique of turning one’s concentration inward and achieving a slightly changed state of consciousness.

**Melancholia** A condition described by early Greek and Roman philosophers and physicians as consisting of unshakable sadness. Today it is known as depression.

**Melatonin** A hormone released by the pineal gland when a person’s surroundings are dark.

**Memory** The faculty for recalling past events and past learning.

**Mental incompetence** A state of mental instability that leaves defendants unable to understand the legal charges and proceedings they are facing and unable to prepare an adequate defense with their attorney.

**Mental status exam** A set of interview questions and observations designed to reveal the degree and nature of a client’s psychological functioning.

**Mentally disordered sex offender** A legal category that some states apply to certain people who are repeatedly found guilty of sex crimes.

**Mentally ill chemical abusers (MICAs)** People suffering from both schizophrenia (or another severe psychological disorder) and a substance-related disorder. Also called dual-diagnosis patients.

**Mesmerism** The method employed by Austrian physician F.A. Mesmer to treat hysterical disorders; a precursor of hypnotism.

**Meta-analysis** A statistical method that combines results from multiple independent studies.

**Metabolism** An organism’s chemical and physical breakdown of food and the process of converting it into energy. Also, an organism’s biochemical transformation of various substances, as when the liver breaks down alcohol into acetaldehyde.

**Metaworry** Worrying about the fact that one is worrying so much.

**Methadone** A laboratory-made opioid-like drug.

**Methadone maintenance program** An approach to treating heroin-centered substance use in which clients are given legally and medically supervised doses of a substitute drug, methadone.

**Methylphenidate** A stimulant drug, known better by the trade name Ritalin, commonly used to treat ADHD.

**Migraine headache** A very severe headache that occurs on one side of the head, often preceded by a warning sensation and sometimes accompanied by dizziness, nausea, or vomiting.

**Mild intellectual disability** A level of intellectual disability (IQ between 50 and 70) at which people can benefit from education and can support themselves as adults.

**Mild neurocognitive disorder** Neuropsychological disorder in which the decline in cognitive functioning is modest and does not interfere with the ability to be independent.

**Milieu therapy** A humanistic approach to institutional treatment based on the premise that institutions can help patients recover by creating a climate that promotes self-respect, individual responsible behavior, and meaningful activity.

**Mind-body dualism** René Descartes’s position that the mind is separate from the body.

**Mindfulness-based cognitive therapy** A type of therapy that teaches clients to be mindful of (just notice and accept) their dysfunctional thoughts or worries.

**Mindfulness meditation** A type of meditation in which people are mindful of (just notice) the various thoughts, emotions, sensations, and other private experiences that pass through their minds and bodies.

**Minnesota Multiphasic Personality Inventory (MMPI)** A widely used personality inventory consisting of a large number of statements that subjects mark as being true or false for them.

**Mixed design** A research design in which a correlational method is mixed with an experimental method. Also known as quasi-experiment.

**M’Naghten rule** A widely used legal test for insanity that holds people to be insane at the time they committed a crime if, because of a mental disorder, they did not know the nature of the act or did not know right from wrong. Also known as the M’Naghten rule.

**Model** A set of assumptions and concepts that help scientists explain and interpret observations. Also called a paradigm.

**Modeling** A process of learning in which a person acquires responses by observing and imitating others. Also, a therapy approach based on the same principle.

**Moderate intellectual disability** A level of intellectual disability (IQ between 35 and 49) at which people can learn to care for themselves and can benefit from vocational training.

**Monoamine oxidase (MAO) A body chemical that destroys the neurotransmitter norepinephrine.**

**Monoamine oxidase (MAO) inhibitors** Antidepressant drugs that lower MAO activity and thus increase the level of norepinephrine activity in the brain.
Mood disorder A disorder affecting one’s emotional state, including major depressive disorder and bipolar disorders.

Mood stabilizing drugs Psychotropic drugs that help stabilize the moods of people suffering from a bipolar mood disorder. Also known as antipodal drugs.

Moral treatment A nineteenth-century approach to treating people with mental dysfunction that emphasized moral guidance and humane and respectful treatment.

Morphine A highly addictive substance derived from opium that is particularly effective in relieving pain.

Multicultural perspective The view that each culture within a larger society has a particular set of values and beliefs, as well as special external pressures, that help account for the behavior and functioning of its members. Also called culturally diverse perspective.

Multicultural psychology The field of psychology that examines the impact of culture, race, ethnicity, gender, and similar factors on our behaviors and thoughts and focuses on how such factors may influence the origin, nature, and treatment of abnormal behavior.

Multidimensional risk perspective A theory that identifies several kinds of risk factors that are thought to combine to help cause a disorder. The more factors present, the greater the risk of developing the disorder.

Munchausen syndrome An extreme and long-term form of factitious disorder in which a person produces symptoms, gains admission to a hospital, and receives treatment.

Munchausen syndrome by proxy A factitious disorder in which parents make up or produce physical illnesses in their children.

Muscle contraction headache A headache caused by the narrowing of muscles surrounding the skull. Also known as tension headache.

Muscle dysmorphobia Disorder in which people become obsessed with the incorrect belief that they are not muscular enough.

Narcissistic personality disorder A personality disorder marked by a broad pattern of grandiosity, need for admiration, and lack of empathy.

Narcolepsy A sleep-wake disorder characterized by a repeated sudden and irresistible need to sleep during waking hours.

Narcotic Any natural or synthetic opioid-like drug.

Narcotic antagonist A substance that attaches to opioid receptors in the brain and, in turn, blocks the effects of opioids.

National Alliance on Mental Illness (NAMI) A nationwide grassroots organization that provides support, education, advocacy, and research for people with severe mental disorders and their families.

Natural experiment An experiment in which nature, rather than an experimenter, manipulates an independent variable.

Naturalistic observation A method of observing behavior, in which clinicians or researchers observe people in their everyday environments.

Negative correlation A statistical relationship in which the value of one variable increases while the other variable decreases.

Negative symptoms Symptoms of schizophrenia that seem to be deficits in normal thought, emotions, or behaviors.

Neologism A made-up word that has meaning only to the person using it.

Nerve ending The region at the end of a neuron from which an impulse is sent to a neighboring neuron.

Neurocognitive disorder A disorder marked by a significant decline in at least one area of cognitive functioning.

Neurodevelopmental disorders A group of disabilities—including ADHD, autism spectrum disorder, and intellectual disability—in the functioning of the brain that emerge at birth or during early childhood and affect an individual’s behavior, memory, concentration, and/or ability to learn.

Neurofibrillary tangles Twisted protein fibers that form within certain brain cells as people age. People with Alzheimer’s disease have an excessive number of such tangles.

Neuroimaging techniques Neurological tests that provide images of brain structure or activity, such as CT scans, PET scans, and MRIs. Also called brain scans.

Neuroleptic drugs An alternative term for conventional antipsychotic drugs, so called because they often produce undesired effects similar to the symptoms of neurological disorders.

Neuroleptic malignant syndrome A severe, potentially fatal reaction to antipsychotic drugs, marked by muscle rigidity, fever, altered consciousness, and autonomic dysfunction.

Neurological Relating to the structure or activity of the brain.

Neurological test A test that directly measures brain structure or activity.

Neuromodulator A neurotransmitter that helps modify or regulate the effect of other neurotransmitters.

Neuron A nerve cell.

Neuropsychological test A test that detects brain impairment by measuring a person’s cognitive, perceptual, and motor performance.

Neurosis Freud’s term for disorders characterized by intense anxiety, attributed to failure of a person’s ego defense mechanisms to cope with unconscious conflicts.

Neurotransmitter A chemical that, released by one neuron, crosses the synaptic space to be received at receptors on the dendrites of neighboring neurons.

Neutralizing Attempting to eliminate thoughts that one finds unacceptable by thinking or behaving in ways that make up for those thoughts and so put matters right internally.

Nicotine An alkaloid (nitrogen-containing chemical) derived from tobacco or produced in the laboratory.

Nicotine patch A patch attached to the skin like a Band-Aid, with nicotine content that is absorbed through the skin, that supposedly eases the withdrawal reaction brought on by quitting cigarette smoking.

Nightmare disorder A parasomnia characterized by chronic distressful, frightening dreams.

Nocturnal penile tumescence (NPT) Erection during sleep.

Nomothetic understanding A general understanding of the nature, causes, and treatments of abnormal psychological functioning, in the form of laws or principles.

Nonsuicidal self-injury (NSSI) A disorder that is being studied for possible inclusion in a future edition of DSM-5, characterized by persons intentionally injuring themselves on five or more occasions over a 1-year period, without the conscious intent of killing themselves.

Norepinephrine A neurotransmitter whose abnormal activity is linked to panic disorder and depression.

Normalization The principle that institutions and community residences should provide people with intellectual disability types of living conditions and opportunities that are similar to those enjoyed by the rest of society.

Norms A society’s stated and unstated rules for proper conduct.

Not guilty by reason of insanity (NGRI) A verdict stating that defendants are not guilty of committing a crime because they were insane at the time of the crime.

Object relations theory The psychodynamic theory that views the desire for relationships as the key motivating force in human behavior.

Observer drift The tendency of an observer who is rating subjects in an experiment to change criteria gradually and involuntarily, thus making the data unreliable.

Obsession A persistent thought, idea, impulse, or image that is experienced repeatedly, feels intrusive, and causes anxiety.

Obsessive-compulsive disorder A disorder in which a person has recurrent and unwanted thoughts and/or a need to perform repetitive and rigid actions.

Obsessive-compulsive personality disorder A personality disorder marked by such an intense focus on orderliness,
perfectionism, and control that the person loses flexibility, openness, and efficiency.

**Obsessive-compulsive-related disorders** A group of disorders in which obsessive-like concerns drive people to repeatedly and excessively perform specific patterns of behavior that greatly disrupt their lives.

**Oedipus complex** In Freudian theory, the pattern of desires emerging during the phallic stage in which boys become attracted to their mother as a sexual object and see their father as a rival they would like to push aside.

**Olanzapine** An atypical antipsychotic drug whose brand name is Zyprexa.

**Operant conditioning** A process of learning in which behavior that leads to satisfying consequences is likely to be repeated.

**Opioid** Opium or any of the drugs derived from opium, including morphine, heroin, and codeine.

**Opium** A highly addictive substance made from the sap of the opium poppy seed.

**Oppositional defiant disorder** A disorder in which children are repeatedly argumentative and defiant, angry and irritable, and, in some cases, vindictive.

**Oral stage** The earliest developmental stage in Freud’s conceptualization of psychosexual development, during which the infant’s main gratification comes from feeding and from the body parts involved in feeding.

**Orbitofrontal cortex** A region of the brain in which impulses involving excretion, sexuality, violence, and other primitive activities normally arise.

**Orgasm** A peaking of sexual pleasure, consisting of rhythmic muscular contractions in the pelvic region, during which a man’s semen is ejaculated and the outer third of a woman’s vaginal wall contracts.

**Orgasm phase** The phase of the sexual response cycle during which a person’s sexual pleasure peaks and sexual tension is released as muscles in the pelvic region contract rhythmically.

**Orgasmic reorientation** A procedure for treating certain paraphilias by teaching clients to respond to new, more appropriate stimuli.

**Outpatient** A person who receives a diagnosis or treatment in a clinic, hospital, or therapist’s office but is not hospitalized overnight.

**Panic attacks** Periodic, short bouts of panic that occur suddenly, reach a peak within minutes, and gradually pass.

**Panic disorder** An anxiety disorder marked by recurrent and unpredictable panic attacks.

**Paraphilias** Patterns in which a person has recurrent and intense sexual urges, fantasies, or behaviors involving nonhuman objects, children, nonconsenting adults, or experiences of suffering or humiliation.

**Paraphilic disorder** A disorder in which a person’s paraphilia causes great distress, interferes with social or occupational activities, or places the person or others at risk of harm—either currently or in the past.

**Paraprofessional** A person without previous professional training who provides services under the supervision of a mental health professional.

**Paroxysms** Sleep-wake disorders, such as sleepwalking, sleep terrors, and nightmare disorder, characterized by the occurrence of abnormal events during sleep.

**Parasuicide** A suicide attempt that does not result in death.

**Parasympathetic nervous system** The nerve fibers of the autonomic nervous system that help return bodily processes to normal.

**Parens patriae** The principle by which the state can make decisions to promote the individual’s best interests and protect him or her from self-harm or neglect.

**Parkinsonian symptoms** Symptoms similar to those found in Parkinson’s disease. Patients with schizophrenia who take conventional antipsychotic medications may display one or more of these symptoms.

**Parkinson’s disease** A slowly progressive neurological disease, marked by tremors and rigidity, that may also cause dementia.

**Participant modeling** A behavioral treatment in which people with fears observe a therapist (model) interacting with a feared object and then interact with the object themselves.

**Pedophilic disorder** A paraphilic disorder in which a person has repeated and intense sexual urges or fantasies about watching, touching, or engaging in sexual acts with children, and either acts on these urges or experiences clinically significant distress or impairment.

**Peer review system** A system by which clinicians paid by an insurance company may periodically review a patient’s progress and recommend the continuation or termination of insurance benefits.

**Penile prosthesis** A surgical implant consisting of a semirigid rod that produces an artificial erection.

**Performance anxiety** The fear of performing inadequately and a related tension experienced during sex.

**Perseveration** The persistent repetition of words and statements.

**Persistent depressive disorder** A chronic form of unipolar depression marked by ongoing and repeated symptoms of either major or mild depression.

**Personality** A unique and long-term pattern of inner experience and outward behavior that leads to consistent reactions across various situations.

**Personality disorder** An enduring, rigid pattern of inner experience and outward behavior that repeatedly impairs a person’s sense of self, emotional experiences, goals, capacity for empathy, and/or capacity for intimacy.

**Personality disorder—trait specified** (PDTs) A personality disorder currently undergoing study for possible inclusion in a future revision of DSM-5. Individuals would receive this diagnosis if they display significant impairment in functioning as a result of one or more very problematic traits.

**Personality inventory** A test designed to measure broad personality characteristics, consisting of statements about behaviors, beliefs, and feelings that people evaluate as either characteristic or uncharacteristic of them.

**Phallic stage** In psychoanalytic theory, the period between the third and fourth years when the focus of sexual pleasure shifts to the genitals.

**Phalloplasty** A surgical procedure designed to create a functional penis.

**Phenothiazines** A group of antihistamine drugs that became the first group of effective antipsychotic medications.

**Phenylketonuria (PKU)** A metabolic disorder caused by the body’s inability to break down the amino acid phenylalanine, resulting in intellectual disability and other symptoms.

**Phobia** A persistent and unreasonable fear of a particular object, activity, or situation.

**Pick’s disease** A neurological disease that affects the frontal and temporal lobes, causing a neurocognitive disorder.

**Placebo therapy** A simulated treatment that the participant in an experiment believes to be genuine.

**Play therapy** An approach to treating childhood disorders that helps children express their conflicts and feelings indirectly by drawing, playing with toys, and making up stories.

**Pleasure principle** The pursuit of gratification that characterizes id functioning.

**Plethysmograph** A device used to measure sexual arousal.

**Polygraph test** A test that seeks to determine whether the test taker is telling the truth by measuring physiological responses such as respiration level, perspiration level, and heart rate. Also known as a lie detector test.

**Polysubstance use** The use of two or more substances at the same time.

**Positive correlation** A statistical relationship in which the values of two variables increase together or decrease together.

**Positive psychology** The study and enhancement of positive feelings, traits, and abilities.
Positive symptoms Symptoms of schizophrenia that seem to be excesses of or bizarre additions to normal thoughts, emotions, or behaviors.

Positron emission tomography (PET scan) A computer-produced motion picture showing rates of metabolism throughout the brain.

Postpartum depression An episode of depression experienced by some new mothers that begins within four weeks after giving birth.

Postpartum psychosis An episode of psychosis experienced by a small percentage of new mothers that begins within days or weeks after giving birth.

Posttraumatic stress disorder (PTSD) A disorder in which fear and related symptoms continue to be experienced long after a traumatic event.

Poverty of content A lack of meaning in spite of high emotion that is found in the speech of some people with schizophrenia.

Predictive validity The ability of a test or other assessment tool to predict future characteristics or behaviors.

Predisposition An inborn or acquired vulnerability for developing certain symptoms or disorders.

Prefrontal lobes Regions of the brain that play a key role in short-term memory, among other functions.

Premature ejaculation A dysfunction in which a man persistsently reaches orgasm and ejaculates within one minute of beginning sexual activity with a partner and before he wishes to. Also called early or rapid ejaculation.

Premenstrual dysphoric disorder A disorder marked by repeated experiences of depression and related symptoms during the week before menstruation.

Premenstrual syndrome (PMS) A common and normal cluster of psychological and physical discomforts that precede menses.

Premorbid The period prior to the onset of a disorder.

Preparedness A predisposition to develop certain fears.

Prevalence The total number of cases of a disorder occurring in a population over a specific period of time.

Prevention A key feature of community mental health programs that seek to prevent or minimize psychological disorders.

Primary gain In psychodynamic theory, the gain people achieve when their somatic symptoms keep their internal conflicts out of awareness.

Primary personality The subpersonaity that appears more often than the others in individuals with dissociative identity disorder.

Primary prevention Prevention interventions that are designed to prevent disorders altogether.

Private psychotherapy An arrangement in which a person directly pays a therapist for counseling services.

Proband The person who is the focus of a genetic study.

Procedural memory Memory of learned skills that a person performs without needing to think about them.

Prodromal phase The period during which the symptoms of schizophrenia are not yet prominent, but the person has begun to deteriorate from previous levels of functioning.

Profound intellectual disability A level of intellectual disability (IQ below 20) at which people need a very structured environment with close supervision.

Projection An ego defense mechanism whereby individuals attribute to other people characteristics or impulses they do not wish to acknowledge in themselves.

Projective test A test consisting of ambiguous material that people interpret or respond to.

Protection and advocacy system The system by which lawyers and advocates who work for patients may investigate the patients' treatment and protect their rights.

Prozac The trade name for fluoxetine, a second-generation antidepressant.

Psychiatric social worker A mental health specialist who is qualified to conduct psychotherapy upon earning a master's degree or doctorate in social work.

Psychiatrist A physician who in addition to medical school has completed three to four years of residency training in the treatment of abnormal mental functioning.

Psychological profile A method of suspect identification that seeks to predict an unknown criminal's psychological, emotional, and personality characteristics based on the individual's pattern of criminal behavior and on research into the psychological characteristics of people who have committed similar crimes.

Psychology The study of mental processes and behaviors.

Psychomotor symptoms Disturbances in movement sometimes found in certain disorders such as schizophrenia.

Psychoneuroimmunology The study of the connections among stress, the body's immune system, and illness.

Psychopathology An abnormal pattern of functioning that may be described as deviant, distressful, dysfunctional, and/or dangerous.

Psychopathy See antisocial personality disorder.

Psychopharmacologist A psychiatrist who primarily prescribes medications. Also called pharmacotherapist.

Psychophysiological disorders Disorders in which biological, psychological, and sociocultural factors interact to cause or worsen a physical illness. Also known as psychological factors affecting other medical conditions.

Psychophysiological test A test that measures physical responses (such as heart rate and muscle tension) as possible indicators of psychological problems.

Psychosexual stages The developmental stages defined by Freud in which the id, ego, and superego interact.

Psychosis A state in which a person loses contact with reality in key ways.

Psychosurgery Brain surgery for mental disorders. Also called neurosurgery.

Psychotherapy A treatment system in which words and acts are used by a client (patient) and therapist in order to help the client overcome psychological difficulties.

Psychotropic medications Drugs that mainly affect the brain and reduce many symptoms of mental dysfunctioning.

Quasi-experiment An experiment in which investigators make use of control and experimental groups that already exist in the world at large. Also called a mixed design.

Random assignment A selection procedure that ensures that participants are randomly placed either in the control group or in the experimental group.

Rap group The initial term for group therapy sessions among veterans, in which
A defense mechanism whereby the ego prevents unacceptable impulses from reaching consciousness.

Rape Forced sexual intercourse or another sexual act committed against a non-consenting person or intercourse with an underage person.

Rapid eye movement (REM) sleep The period of the sleep cycle during which the eyes move quickly back and forth, indicating that the person is dreaming.

Rapprochement movement An effort to identify a set of common strategies that run through the work of all effective therapists.

Rational-emotive therapy A cognitive therapy developed by Albert Ellis that helps clients identify and change the irrational assumptions and thinking that help cause their psychological disorder.

Rationalization An ego defense mechanism in which one creates acceptable reasons for unwanted or undesirable behavior.

Reaction formation An ego defense mechanism whereby a person counters an unacceptable desire by taking on a lifestyle that directly opposes the unwanted impulse.

Reactive depression A depression that appears to be triggered by clear events. Also known as exogenous depression.

Reactivity The extent to which the very presence of an observer affects a person's behavior.

Reality principle The recognition, characterizing ego functioning, that we cannot always express or satisfy our id impulses.

Receptor A site on a neuron that receives a neurotransmitter.

Regression An ego defense mechanism in which a person returns to a more primitive mode of interacting with the world.

Reinforcement The desirable or undesirable stimuli that result from an organism's behavior.

Relapse-prevention training A cognitive-behavioral approach to treating alcohol use disorder (and applied to certain other disorders) in which clients are taught to keep track of their drinking behavior, apply coping strategies in situations that typically trigger excessive drinking, and plan ahead for risky situations and reactions.

Relational psychoanalytic therapy A form of psychodynamic therapy that considers therapists to be active participants in the formation of patients' feelings and reactions and therefore calls for therapists to disclose their own experiences and feelings in discussions with patients.

Relaxation training A treatment procedure that teaches clients to relax at will so they can calm themselves in stressful situations.

Reliability A measure of the consistency of test or research results.

Repression A defense mechanism whereby the ego prevents unacceptable impulses from reaching consciousness.

Glossary:

Residential treatment center A place where people formerly addicted to drugs live, work, and socialize in a drug-free environment. Also called a therapeutic community.

Resiliency The ability to avoid or recover from the effects of negative circumstances.

Resistance An unconscious refusal to participate fully in therapy.

Resolution phase The fourth phase in the sexual response cycle, characterized by relaxation and a decline in arousal following orgasm.

Response inventories Tests designed to measure a person's responses in one specific area of functioning, such as affect, social skills, or cognitive processes.

Response prevention See Exposure and response prevention.

Response set A particular way of responding to questions or statements on a test, such as always selecting “true,” regardless of the actual questions.

Restricting-type anorexia nervosa A type of anorexia nervosa in which people reduce their weight by severely restricting their food intake.

Reticular formation The brain's arousal center, which helps people to be awake, alert, and attentive.

Retrograde amnesia A lack of memory about events that occurred before the event that triggered amnesia.

Retrospective analysis A psychological autopsy in which clinicians and researchers piece together information about a person's suicide from the person's past.

Reversal design A single-subject experimental design in which behavior is measured to provide a baseline (A), then again after the treatment has been applied (B), then again after the conditions during baseline have been reintroduced (A), and then once again after the treatment is reintroduced (B). Also known as ABAB design.

Reward A pleasurable stimulus given to an organism that encourages a specific behavior.

Reward center A dopamine-rich pathway in the brain that produces feelings of pleasure when activated.

Reward-deficiency syndrome A condition, suspected to be present in some people, in which the brain's reward center is not readily activated by the usual events in their lives.

Right to refuse treatment The legal right of patients to refuse certain forms of treatment.

Right to treatment The legal right of patients, particularly those who are involuntarily committed, to receive adequate treatment.

Risperidone A commonly prescribed atypical antipsychotic drug.

Ritalin Trade name of methylphenidate, a stimulant drug that is helpful in many cases of attention-deficit/hyperactivity disorder (ADHD).

Role play A therapy technique in which clients are instructed to act out roles assigned to them by the therapist.

Rorschach test A projective test, in which a person reacts to inkblots designed to help reveal psychological features of the person.

Rosenthal effect The general finding that the results of any experiment often conform to the expectations of the experimenter.

Rush A spasm of warmth and ecstasy that occurs when certain drugs, such as heroin, are ingested.

Savant A person with a mental disorder or significant intellectual deficits who has some extraordinary ability despite the disorder or deficits.

Schizoaffective disorder A disorder in which symptoms of both schizophrenia and a mood disorder are prominent.

Schizoid personality disorder A personality disorder in which a person persistently avoids social relationships and shows little emotional expression.

Schizophrenia A psychotic disorder in which personal, social, and occupational functioning deteriorate as a result of strange perceptions, disturbed thought processes, unusual emotions, and motor abnormalities.

Schizophréniform disorder A disorder in which all of the key features of schizophrenia are present but last only between one and six months.

Schizophrenogenic mother A type of mother—supposedly cold, domineering, and uninterested in the needs of her children—who was once thought to cause schizophrenia in her child.

Schizotypal personality disorder A personality disorder characterized by extreme discomfort in close relationships, odd forms of thinking and perceiving, and behavioral eccentricities.

School phobia A pattern in which children fear going to school and often stay home for a long period of time. Also called school refusal.

Scientific method The process of systematically gathering and evaluating information through careful observations to gain an understanding of a phenomenon.

Seasonal affective disorder (SAD) A mood disorder in which mood episodes are related to changes in season.

Second-generation antidepressants New antidepressant drugs that differ structurally from tricyclics and MAO inhibitors.

Second-generation antipsychotic drugs A relatively new group of antipsychotic drugs whose biological action is different from that of the conventional antipsychotic drugs. Also known as atypical antipsychotic drugs.
Second messengers Chemical changes within a neuron just after the neuron receives a neurotransmitter message and just before it responds.

Secondary gain In psychodynamic theory, the gain people achieve when their somatic symptoms elicit kindness from others or provide an excuse for avoiding unpleasant activities.

Secondary prevention Prevention interventions that are designed to address disorders quickly, before they become more serious problems.

Sedative-hypnotic drug A drug used in low doses to calm people and in higher doses to help people sleep. Also called an anxiolytic drug.

Selective amnesia An inability to recall some of the events that occurred over a limited period of time.

Selective serotonin reuptake inhibitors (SSRIs) A group of second-generation antidepressant drugs that increase serotonin activity specifically, without affecting other neurotransmitters.

Self-actualization The humanistic process by which people fulfill their potential for goodness and growth.

Self-efficacy The belief that one can master and perform needed behaviors whenever necessary.

Self-help group A group made up of people with similar problems who help and support one another without the direct leadership of a clinician. Also called a mutual help group.

Self-hypnosis The process of hypnotizing oneself, sometimes for the purpose of forgetting unpleasant events.

Self-instruction training A cognitive treatment developed by Donald Meichenbaum that teaches people to use coping self-statements at times of stress or discomfort. Also called stress inoculation training.

Self-monitoring Clients’ observation of their own behavior.

Self-statements According to some cognitive theorists, statements about oneself, sometimes counterproductive, that come to mind during stressful situations.

Self theory The psychodynamic theory that emphasizes the role of the self—a person’s unified personality.

Senile Characteristic of or associated with old age.

Senile plaques Sphere-shaped deposits of beta-amyloid protein that form in the spaces between certain brain cells and in certain blood vessels as people age. People with Alzheimer’s disease have an excessive number of such plaques.

Sensate focus A treatment for sexual disorders that instructs couples to take the focus away from orgasm or intercourse and instead spend time concentrating on the pleasure achieved by such acts as kissing, hugging, and mutual massage. Also known as non-demand pleasuring.

Separation anxiety disorder A disorder marked by excessive anxiety, even panic, whenever the individual is separated from home, a parent, or another attachment figure.

Serial murders A series of two or more killings carried out separately by the same individual(s) over a period of time—usually a month or more.

Serotonin A neurotransmitter whose abnormal activity is linked to depression, obsessive-compulsive disorder, and eating disorders.

Severe intellectual disability A level of intellectual disability (IQ between 20 and 34) at which individuals require careful supervision and can learn to perform basic work in structured and sheltered settings.

Sex-change surgery A surgical procedure that changes a person’s sex organs, features, and, in turn, sexual identity. Also known as sex reassignment surgery.

Sex offender statute The presumption by some state legislatures that people who are repeatedly found guilty of certain sex crimes have a mental disorder and should be categorized as “mentally disordered sex offenders.” Such laws have been changed or abolished by many states over the past two decades.

Sexual aversion disorder A disorder characterized by an aversion to and avoidance of genital sexual interplay.

Sexual dysfunction A disorder marked by a persistent inability to function normally in some area of the human sexual response cycle.

Sexual masochism disorder A paraphilic disorder in which a person has repeated and intense sexual urges, fantasies, or behaviors that involve being humiliated, beaten, bound, or otherwise made to suffer, accompanied by clinically significant distress or impairment.

Sexual response cycle The general sequence of behavior and feelings that occurs during sexual activity, consisting of desire, excitement, orgasm, and resolution.

Sexual sadism disorder A paraphilic disorder in which a person has repeated and intense sexual urges or fantasies that involve inflicting suffering on others, and either acts on these urges with nonconsenting individuals or experiences clinically significant distress or impairment.

Sexually violent predator laws Laws passed by the federal government and many states that call for certain sex offenders who have been convicted of sex crimes and have served their sentence in prison to be removed from prison before their release and committed involuntarily to a mental hospital for treatment if a court judges them likely to engage in further acts of sexual violence due to a mental or personality abnormality. Also called sexually dangerous persons laws.

Shaping A learning procedure in which successive approximations of the desired behavior are rewarded until finally the exact and complete behavior is learned.

Sheltered workshop A supervised workplace for people who are not yet ready for competitive jobs.

Short-term memory The memory system that collects new information. Also known as working memory.

Shuttle box A box separated in the middle by a barrier that an animal can jump over in order to escape or avoid shock.

Sildenafil A drug used to treat erectile disorder that helps increase blood flow to the penis during sexual activity. Marketed as Viagra.

Single-subject experimental design A research method in which a single participant is observed and measured both before and after the manipulation of an independent variable.

Situation anxiety The various levels of anxiety produced in a person by different situations. Also called state anxiety.

Sleep apnea disorder A sleep-wake disorder characterized by frequent awakenings each night due to periodic deprivation of oxygen to the brain during sleep.

Sleep terror disorder A parasomnia in which a person awakens suddenly during the first third of sleep, screaming out in extreme fear and agitation.

Sleepwalking disorder A parasomnia in which people repeatedly leave their beds and walk around without being conscious of the episode or remembering it later.

Social anxiety disorder A severe and persistent fear of social or performance situations in which embarrassment may occur.

Social skills training A therapy approach that helps people learn or improve social skills and assertiveness through role playing and rehearsing of desirable behaviors.

Social therapy An approach to therapy in which the therapist makes practical advice and life adjustment a central focus of treatment for schizophrenia. Therapy also focuses on problem solving, decision making, development of social skills, and management of medications. Also known as personal therapy.

Sociocultural model The theoretical perspective that emphasizes the effects of society, culture, and social and family groups on individual behavior.

Sociopathy See Antisocial personality disorder.

Sodium amobarbital (Amytal) A drug used to put people into a near-sleep state during which some can better recall forgotten events.
Sodium pentobarbital (Pentothal) See Sodium amobarbital.

Somatic symptom disorder A disorder in which people become excessively distressed, concerned, and anxious about bodily symptoms that they are experiencing, and their lives are greatly and disproportionately disrupted by the symptoms.

Somatogenic perspective The view that abnormal psychological functioning has physical causes.

Special education An approach to educating children with intellectual disability in which they are grouped together and given a separate, specially designed education.

Specific learning disorder A developmental disorder marked by impairments in cognitive skills such as reading, writing, arithmetic, or mathematical skills.

Specific phobia A severe and persistent fear of a specific object or situation (does not include agoraphobia and social anxiety disorder).

Spectator role A state of mind that some people experience during sex, focusing on their sexual performance to such an extent that their performance and their enjoyment are reduced.

Standardization The process in which a test is administered to a large group of people whose performance then serves as a standard or norm against which any individual’s score can be measured.

State-dependent learning Learning that becomes associated with the conditions under which it occurred, so that it is best remembered under the same conditions.

State hospitals Public mental institutions in the United States, run by the individual states.

State school A state-supported institution for people with intellectual disability.

Statistical analysis The application of principles of probability to the findings of a study in order to learn how likely it is that the findings have occurred by chance.

Statistical significance A measure of the probability that a study’s findings occurred by chance rather than because of the experimental manipulation.

Stimulant drug A substance that increases the activity of the central nervous system.

Stimulus generalization A phenomenon in which responses to one stimulus are also produced by similar stimuli.

Stress-management program An approach to treating generalized and other anxiety disorders that teaches clients techniques for reducing and controlling stress.

Stressor An event that creates a sense of threat by confronting a person with a demand or opportunity for change of some kind.

Stress-reduction and problem-solving seminar A workshop or series of group sessions offered by a business, in which mental health professionals teach employees how to cope with and solve problems and reduce stress.

Stress response A person’s particular reactions to stress.

Structured interview An interview format in which the clinician asks prepared questions.

Subintentional death A death in which the victim plays an indirect, hidden, partial, or unconscious role.

Subject An individual chosen to participate in a study. Also called a participant.

Sublimation In psychoanalytic theory, the rechanneling of id impulses into endeavors that are both socially acceptable and personally gratifying. Sublimation can also be used as an ego defense mechanism.

Subpersonalities The two or more distinct personalities found in individuals suffering with dissociative identity disorder. Also known as alternate personalities.

Substance use disorder A pattern of maladaptive behaviors and reactions brought about by repeated use of a substance, sometimes also including tolerance for the substance and withdrawal reactions.

Suicidal behavior disorder A classification being studied for possible inclusion in a future revision of DSM-5, in which individuals have tried to commit suicide within the last two years.

Suicide A self-inflicted death in which the person acts intentionally, directly, and consciously.

Suicide prevention program A program that tries to identify people who are at risk of killing themselves and to offer them crisis intervention.

Superego According to Freud, the psychological force that represents a person’s values and ideals.

Supportive nursing care A treatment, used to help those with anorexia nervosa in particular, in which trained nurses conduct a day-to-day hospital program.

Symbolic loss According to Freudian theory, the loss of a valued object (for example, a loss of employment) that is unconsciously interpreted as the loss of a loved one. Also called imagined loss.

Sympathetic nervous system The nerve fibers of the autonomic nervous system that quicken the heartbeat and produce other changes experienced as arousal and fear.

Synapse The tiny space between the nerve ending of one neuron and the dendrite of another.

Syndrome A cluster of symptoms that usually occur together.

Synergistic effect In pharmacology, an increase of effects that occurs when more than one substance is acting on the body at the same time.

Synesthesia A crossing over of sensory perceptions caused by LSD and other hallucinogenic drugs. For example, a loud sound may be seen or a color may be felt.

Systematic desensitization A behavioral treatment that uses relaxation training and a fear hierarchy to help clients with phobias react calmly to the objects or situations they dread.

Tarantism A disorder occurring throughout Europe between 900 and 1800 A.D. in which people would suddenly start to jump around, dance, and go into convulsions. Also known as St. Vitus’s dance.

Tardive dyskinesia Extrapyramidal effects that appear in some patients after they have taken conventional antipsychotic drugs for an extended time.

Tay–Sachs disease A metabolic disorder that causes progressive loss of intellectual functioning, vision, and motor functioning, resulting in death.

Temporal lobes Regions of the brain that play a key role in transforming short-term memory to long-term memory, among other functions.

Tension headache See Muscle contraction headache.

Tertiary prevention Prevention interventions that are designed to provide effective treatment for moderate or severe disorders as soon as it is needed so that the disorders do not become long-term problems.

Test A device for gathering information about a few aspects of a person’s psychological functioning from which broader information about the person can be inferred.

Testosterone The principal male sex hormone.

Tetrahydrocannabinol (THC) The main active ingredient of cannabis.

Thanatos According to the Freudian view, the basic death instinct that functions in opposition to the life instinct.

Thematic Apperception Test (TAT) A projective test consisting of pictures that show people in ambiguous situations that the client is asked to interpret.

Theory of mind Awareness that other people base their behaviors on their own beliefs, intentions, and mental states, not on information they have no way of knowing.

Therapist A professional clinician who applies a system of therapy to help a person overcome psychological difficulties.

Therapy A systematic process for helping people overcome their psychological problems. Therapy consists of a patient, a trained therapist, and a series of contacts between them.

Token economy program A behavioral program in which a person’s desirable behaviors are reinforced systematically throughout the day by the awarding of...
tokens that can be exchanged for goods or privileges.

**Tolerance** The adjustment that the brain and the body make to the regular use of certain drugs so that ever larger doses are needed to achieve the earlier effects.

**Torture** The use of brutal, degrading, and disorienting strategies to reduce victims to a state of utter helplessness.

**Trait anxiety** The general level of anxiety that a person brings to the various events in his or her life.

**Tranquilizer** A drug that reduces anxiety.

**Transcranial magnetic stimulation (TMS)** A treatment procedure for depression in which an electromagnetic coil, which is placed on or above a person's head, sends a current into the person's brain.

**Transference** According to psychodynamic theorists, the redirection toward the psychotherapist of feelings associated with important figures in a patient's life, now or in the past.

**Transgender experience** A sense that one's actual gender identity is different from the gender category to which one was born physically or that it lies outside the usual male versus female categories.

**Transvestic disorder** A paraphilic disorder consisting of repeated and intense sexual urges, fantasies, or behaviors that involve dressing in clothes of the opposite sex, accompanied by clinically significant distress or impairment. Also known as transvestism or cross-dressing.

**Treatment** A systematic procedure designed to help change abnormal behavior into more normal behavior. Also called therapy.

**Trephination** An ancient operation in which a stone instrument was used to cut away a circular section of the skull, perhaps to treat abnormal behavior.

**Trichotillomania** A disorder in which people repeatedly pull out hair from their scalp, eyebrows, eyelashes, or other parts of their body. Also called hair-pulling disorder.

**Tricyclic** An antidepressant drug such as imipramine that has three rings in its molecular structure.

**Trisomy** A chromosomal abnormality in which a person has three chromosomes of one kind rather than the usual two.

**Tube and intravenous feeding** Forced nourishment sometimes provided to people with anorexia nervosa when their condition becomes life-threatening.

**Type A personality style** A personality pattern characterized by hostility, cynicism, drivenness, impatience, competitiveness, and ambition.

**Type B personality style** A personality pattern in which a person is more relaxed, less aggressive, and less concerned about time.

**Type I schizophrenia** According to some theorists, a type of schizophrenia dominated by positive symptoms, such as delusions, hallucinations, and certain formal thought disorders.

**Type II schizophrenia** According to some theorists, a type of schizophrenia dominated by negative symptoms, such as flat affect, poverty of speech, and loss of volition.

**Tyramine** A chemical that, if allowed to accumulate, can raise blood pressure dangerously. It is found in many common foods and is broken down by MAO.

**Ulcer** A lesion that forms in the wall of the stomach or of the duodenum.

**Unconditional positive regard** Full, warm acceptance of a person regardless of what he or she says, thinks, or feels; a critical component of client-centered therapy.

**Unconditioned response (UCR)** The natural, automatic response produced by an unconditioned stimulus.

**Unconditioned stimulus (UCS)** A stimulus that produces an automatic, natural response.

**Unconscious** The deeply hidden mass of memories, experiences, and impulses that is viewed in Freudian theory as the source of much behavior.

**Undoing** An ego defense mechanism in which a person unconsciously cancels out an unacceptable desire or act by performing another act.

**Unilateral electroconvulsive therapy (ECT)** A form of electroconvulsive therapy in which electrodes are attached to the head so that electrical current passes through only one side of the brain.

**Unipolar depression** Depression without a history of mania.

**Unstructured interview** An interview format in which the clinician asks spontaneous questions that are based on issues that arise during the interview.

**Vagus nerve stimulation** A treatment procedure for depression in which an implanted pulse generator sends regular electrical signals to a person's vagus nerve; the nerve, in turn, stimulates the brain.

**Validity** The accuracy of a test's or study's results; that is, the extent to which the test or study actually measures or shows what it claims.

**Valium** The trade name of diazepam, an anti-anxiety drug.

**Variable** Any characteristic or event that can vary across time, locations, or persons.

**Ventromedial hypothalamus (VMH)** A brain region that depresses hunger when activated.

**Visual hallucinations** Hallucinations in which a person may either experience vague visual perceptions, perhaps of colors or clouds, or have distinct visions of people, objects, or scenes that are not there.

**Voyeuristic disorder** A paraphilic disorder in which a person has repeated and intense sexual desires to observe unsuspecting people in secret as they undress or to spy on couples having intercourse, and either acts on these urges with nonconsenting individuals or experiences clinically significant distress or impairment.

**Weight set point** The weight level that a person is predisposed to maintain, controlled in part by the hypothalamus.

**Windigo** An intense fear of being turned into a cannibal by a flesh-eating monster. The disorder was once found among Algonquin Indian hunters.

**Withdrawal** Unpleasant, sometimes dangerous reactions that may occur when people who use a drug regularly stop taking or reduce their dosage of the drug.

**Working through** The psychoanalytic process of facing conflicts, reinterpreting feelings, and overcoming one's problems.
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1955 The Los Angeles Suicide Prevention Center founded. p. 309
1956 Family systems theory and therapy launched. p. 83
1958 Joseph Wolpe develops desensitization. p. 70
1961 Thomas Szasz publishes The Myth of Mental Illness. p. 5
1962 Albert Ellis proposes rational-emotive therapy. p. 138
1963 The Community Mental Health Act helps trigger deinstitutionalization in the United States. p. 509
1963 Antianxiety drug Valium introduced in the United States. p. 142
1964 U.S. Surgeon General warns that smoking can be dangerous to human health. p. 392
1965 Norepinephrine and serotonin theories of depression proposed. p. 223
1967 Aaron Beck publishes cognitive theory and therapy for depression. p. 257
1967 Methadone maintenance treatment begins. p. 415
1970 Masters and Johnson publish *Human Sexual Inadequacy* and launch sex therapy. p. 439
1972 CAT scan introduced. p. 109
1973 DSM stops listing homosexuality as a mental disorder. p. 447
1973 David Rosenhan conducts study *On Being Sane in Insane Places*. p. 82
1975 U.S. Supreme Court declares that patients in institutions have right to adequate treatment. p. 650
1981 MRI first used as diagnostic tool. p. 109
1982 John Hinckley found not guilty by reason of insanity of the attempted murder of President Reagan. p. 637
1987 Antidepressant Prozac approved in the United States. p. 268
1988 American Psychological Society founded. p. 30
1990 FDA approves first atypical antipsychotic drug, clozapine. p. 502
1994 DSM-IV published. p. 114
1995 APA task force begins search to identify empirically supported (evidence-based) treatments. p. 123
1997 PTSD patients are treated with virtual reality programs for first time. p. 193
1998 Viagra goes on sale in the United States, soon followed by Cialis and Levitra. p. 442
1999 Killing rampage at Columbine High School stirs public concern about dangerousness in children. p. 648
2000 DSM-IV-TR published. p. 114
2000 Scientists finish mapping (i.e., sequencing) the human genome. p. 58
2001 Around 1,600 mental health workers mobilize to help 57,000 victims of 9/11 terrorist attacks. p. 187
2002 New Mexico grants prescription privileges to specially trained psychologists. p. 653
2004 FDA orders black box warnings on all antidepressant drug containers. pp. 303, 571
2006 U.S. Supreme Court upholds Oregon’s “Death with Dignity” Act, allowing doctors to assist suicides by terminally ill individuals under certain conditions. p. 307
2006 Andrea Yates, who drowned her five children while suffering from postpartum psychosis, is retried and found not guilty by reason of insanity. pp. 478, 639
2008 The American Psychological Association votes to ban members from participating in all forms of interrogation at U.S. detention centers, including Guantanamo Bay. p. 188
2011 The American Psychological Association declares its support for the legalization of same-sex marriages. p. 447
2012 Marijuana use (for any purpose) is made legal in Colorado and Washington. p. 404
2013 The White House announces 10-year “BRAIN Initiative” to map the activity of every neuron in the brain. p. 57
2013 DSM-5 published. p. 115
2014 The Affordable Care Act goes into effect, requiring all insurance plans to offer free preventive mental health services and equal ("parity") coverage for mental and physical problems. pp. 22, 659