ABOUT THE COVER ARTWORK

"Butterfly Abstract" is by Bradley D. Rankin of Cuyahoga Falls, Ohio. Bradley created this painting for the 2020 annual Art of Recovery event in Akron, Ohio. This event highlights artwork of clients from a local community mental health center. Bradley comments, "The abstract background with the more realistic butterflies depicts the confusion that sometimes overpowers our environment." Bradley's recovery from mental illness has led to a full-time job and the enjoyment of creating art.

In his own words: "Art has given me confidence and pride in my work and life. My grandmother is a retired professional artist and is my teacher. We enjoy working together even though sometimes we disagree on the subject I'm painting." The artist was given the opportunity to address the nursing students who will use this book. Bradley responded by saying, "Mental illness recovery is possible with help from family, friends, and professionals. Never give up on a patient."

VARCAROLIS'

Foundations of Psychiatric-Mental Health Nursing

A Clinical Approach

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DEDICATION

In memory of my friend and mentor, Betsy Varcarolis, who developed and edited five editions of this textbook. Her life's work in psychiatric nursing has influenced generations of future nurses, touched the lives of countless people, and profoundly changed my life.
December 8, 1940 - May 31, 2020

This book is also dedicated to people who are being treated for and recovering from mental illness and to the future nurses who will support their treatment and recovery.

ACKNOWLEDGMENTS

While revising the 9th edition of *Foundations of Psychiatric-Mental Health Nursing,* there were virtually none of the usual distractions for me. There was no "Let's meet for lunch," "It's time for the gym," or lure of retail therapy. The global coronavirus pandemic resulted in a muffled solitude that was conducive to researching, developing, and revising. Much of this edition was written during an Ohio shelter-in-place order.

The period of 2020–2021 was a time of an unprecedented change in life as usual, not to mention unprecedented suffering and loss of life. While many of us adapted to stay-at-home orders by working and being educated in our residences, countless essential workers faced the invisible danger of COVID-19. Healthcare providers, especially nurses (who are the largest group of direct 24/7 caregivers), risked their own well-being to deliver urgently needed care. There are no adequate words to express appreciation, but heartfelt thanks and tremendous admiration goes out to them.

The year 2020 also marked a milestone in the history of psychiatric nursing. After 80 years of a life well lived, Elizabeth (Betsy) Merrill Varcarolis, the creator of this and other leading psychiatric nursing textbooks, died. It has been 3 decades since Betsy achieved the publication of her first edition of this textbook. I believe that *Foundations* became popular mainly due to her communication style and commitment to effective communication. She had the unique ability to talk *with* nursing students as they read her words and not *at* them.

In this 9th edition of the book, Elizabeth Varcarolis will continue to be honored by the positioning of her last name at the beginning of the book's title. I am beyond grateful to Betsy for enriching my life through her mentoring and entrusting me with *Foundations*. The profession of psychiatric nursing and countless students and recipients of psychiatric-mental health care felt the influence that her words had on patient care. Countless people have benefited from her wisdom. Betsy leaves behind an inspiring legacy to a life well lived.

My heartfelt appreciation also goes out to the talented group of writers who contributed to the 9th edition. Some of these writers are veterans of earlier editions whose knowledge and passion continue to influence psychiatric nursing. New writers whose expertise was both recognized and sought out agreed to join us in this edition. It has been a joy working with each of you. Thanks for the countless hours you spent researching, writing, and rewriting!

A huge debt of gratitude goes to the many educators and clinicians who reviewed the manuscript and offered valuable suggestions, ideas, opinions, and even criticisms. All comments were appreciated and helped refine and strengthen the individual chapters and the textbook as a whole.

Throughout this project, an expert team at Elsevier has provided superb support. I am grateful for Clay Broeker, our Book Production Specialist, who nudged me to meet deadlines, and Brian Salisbury, a talented and creative designer. I have worked with Yvonne Alexopoulos, Senior Content Strategist, and Lisa Newton, Senior Content Development Manager, for over a decade. These women are cutting-edge experts in publishing whose planning, guidance, and support are essential. Their friendship during this revision and over the years has been an added bonus. My deep appreciation goes out to the whole Elsevier team!

Peggy

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TO THE INSTRUCTOR

We are living in an age of fast-paced discoveries in neurobiology, genetics, and pharmacotherapy. Researchers continue to seek the most effective evidence-based approaches for patients and their families. Legal issues and ethical dilemmas faced by the healthcare system are magnified accordingly. Given these challenges, keeping up and knowing how best to teach our students and serve our patients can seem overwhelming. With contributions from many knowledgeable and experienced nurse educators, our goal is to bring to you the most current and comprehensive trends and evidence-based practices in psychiatric-mental health nursing.

NEW TO THIS EDITION

- One of the most important changes to this edition is the addition of specific types of case studies to the clinical chapters. This change stems from a 2013–2014 National Council of State Boards of Nursing (NCSBN) Strategic Practice Analysis that considered the complexity of decisions new nurses make while doing patient care. This analysis led to the question: Is the national licensure exam for registered nurses (RNs) (NCLEX®) measuring the right things? To answer this question, the NCSBN launched the Next Generation NCLEX® (NGN®), a research project to determine whether clinical judgment and decision making in nursing practice can reliably be assessed (https://www.ncsbn.org/next-generation-nclex.htm). The conclusion was a need for more research and the use of new item types on the NCLEX®.
- The NCSBN projects that a revised NCLEX® exam will be rolled out in 2023. It is important to prepare nursing students for the licensure examination and to support faculty who prepare them even as the new test is in the development phase. To this end, new item types are included at the end of patient and clinically oriented chapters. These item types may be single episode or unfolding case studies and include:
  - *Enhanced hot spot:* Data are highlighted that are relevant to answer the question.
  - *Cloze:* Two or more blanks are filled into complete statements or tables. Options that provide the missing information are listed for each blank.
  - *Extended multiple response or select all that apply:* Select all of the choices that answer the question. Up to 10 choices may be provided.
  - *Matrix:* Choose the status of multiple actions or assessments as part of a grid or table.
  - *Extended drag and drop:* Choose from a list of options to match them with selected complications, medications, or client or nurse responses.
- These item types are part of the NCSBN's Clinical Judgment Measurement Model and are focused on patient care. They are designed to measure how the nurse recognizes cues, analyzes cues, prioritizes hypotheses, generates solutions, takes actions, and evaluates outcomes.

OTHER CHANGES TO THE 9TH EDITION

The following changes reflect contemporary nursing practice and psychiatric-mental healthcare and are considered in detail in this edition:

- A transition was made to nursing diagnoses based on the International Classification for Nursing Practice (ICNP) by the International Council of Nurses. This nomenclature promotes interprofessional collaboration through a familiar set of terms that are used by nurses and other healthcare professionals across the world.
- Full *Diagnostic and Statistical Manual of Mental Disorders,* 5th edition *(DSM-5)* diagnostic criteria are provided for major disorders within the clinical chapters.
- Genetic underpinnings of psychiatric disorders and genetic implications for testing and treatment choices are emphasized.
- Advanced practice treatment modalities are addressed separately from the nursing process in categories of biological treatments (e.g., pharmacotherapy, brain stimulation therapies) and psychological therapies (e.g., cognitive-behavioral therapy, interpersonal therapy).
- Thoroughly updated US Food and Drug Administration–approved medications and treatments are featured in all clinical chapters.
- Due to the near-universal experience of trauma in individuals with psychiatric disorders and conditions, an increased emphasis is given to adverse childhood experiences, trauma, and trauma-informed care.
- Screenings and severity rating scales, introduced in Chapter 1 and included throughout most clinical chapters, provide quantifiable data to supplement categorical criteria.
- Increased attention is given to opioid use disorder and associated disorders such as neonatal abstinence syndrome.
- Refer to the To the Student section of this front matter for examples of thoroughly updated familiar features with a fresh perspective, including Evidence-Based Practice boxes, Considering Culture boxes, Health Policy boxes, Key Points to Remember, Assessment Guidelines, Vignettes, and other features.

ORGANIZATION OF THE TEXT

Chapters are grouped in units to emphasize the clinical perspective and facilitate location of information. The order of the clinical chapters approximates those found in the *DSM-5.* All clinical chapters are organized in a clear, logical, and consistent

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format with the nursing process as the strong, visible framework. The basic outline for clinical chapters is:

- Introduction: Provides a brief overview of the disorder and identifies disorders that fall under the umbrella of the general chapter name.
- Clinical Picture: Presents an overview of the disorder(s), *DSM-5* criteria for many of the disorders, and strong source material.
- Epidemiology: Helps the student understand the extent of the problem and characteristics of those who may be more likely to be affected. This section includes information such as 12-month prevalence, lifetime prevalence, age of onset, and gender differences.
- Comorbidity: Describes the most common conditions that are associated with the psychiatric disorder. Knowing that comorbid disorders are often part of the clinical picture of specific disorders helps students as well as clinicians understand how to better assess and care for their patients.
- Risk Factors: Provides current views of causation. This section is being updated to increasingly focus on genetic and neurobiological factors in the etiology of psychiatric diagnoses.
- Application of the Nursing Process: Provides a summary of the steps used to provide care for patients with certain classifications of disorders or specific disorders.
  - Assessment:
    - General Assessment: Identifies assessment for specific disorders, including assessment tools and rating scales. The rating scales that are included help to highlight important areas in the assessment of a variety of behaviors and mental conditions.
    - Self-Assessment: Discusses the nurse's thoughts and feelings that should be addressed to enhance self-growth and provide the best possible and most appropriate care to the patient.
    - Assessment Guidelines: Provides a summary of specific areas to assess by disorder.
  - Nursing Diagnosis: The International Classification for Nursing Practice (ICNP) is published by the International Council of Nurses (ICN) as part of the World Health Organization (WHO) family of classifications. The ICNP diagnoses are both logical and intuitive and can be used to create multidisciplinary health vocabularies within information systems. This classification system is used to support the nursing process throughout the clinical chapters in this textbook.
  - Outcomes Identification: Overall desired outcomes are based on the nursing diagnosis and reflect the desired change. Shorter-term goals help to achieve the outcomes.
  - Planning: Encourages students to develop patient-centered priorities in conjunction with patients, families, and others.
  - Implementation: Interventions follow the standards set forth in the *Psychiatric-Mental Health Nursing: Scope and Standards of Practice* (2014). This publication was developed collaboratively by the American Nurses Association, the American Psychiatric Nurses Association, and the International Society of Psychiatric-Mental Health Nurses. These standards are incorporated throughout the chapters.
  - Evaluation: Addresses evaluation of nursing care as essential to support current planning and intervention. Evaluation also provides direction in modifying the plan of care and updating priorities.
- Treatment Modalities: Addresses treatments that are ordered and/or practiced by advanced practice professionals such as nurse practitioners, psychiatrists, medical doctors, and physician assistants. Treatment modalities fall within two major categories: biological treatments that include pharmacotherapy, brain stimulation therapies, and exercise; and psychological therapies such as cognitive-behavioral therapy.

TEACHING AND LEARNING RESOURCES

For Instructors

Instructor Resources on Evolve, available at http://evolve.elsevier.com/Varcarolis, provide a wealth of material to help you make your psychiatric nursing instruction a success. In addition to all of the Student Resources, the following are provided for faculty:

- **TEACH for Nurses Lesson Plans**, based on the textbook chapter Learning Objectives, serve as ready-made, modifiable lesson plans and a complete roadmap to link all parts of the educational package. These concise and straightforward lesson plans can be modified or combined to meet your particular scheduling and teaching needs.
- **PowerPoint presentations** are organized by chapter, with approximately 750 slides for in-class lectures. The slides are detailed and include customizable text and images to enhance learning in the classroom or in web-based course modules. If you share them with students, they can use the note feature to help them with your lectures.
- **Audience Response Questions for iClicker and other systems** are provided with two to five multiple-answer questions per chapter to stimulate class discussion and assess student understanding of key concepts.
- **Next Generation NCLEX® (NGN)–Style Case Studies for *Varcarolis' Foundations of Psychiatric-Mental Health Nursing*** are available.
- The **Test Bank** has more than 1800 test items, complete with the correct answer, rationale, cognitive level of each question, corresponding step of the nursing process, appropriate NCLEX® Client Needs label, and text page reference(s).
- A ***DSM-5* Webinar** explains the changes in structure and changes to disorders from the *DSM-IV-TR*.

For Students

Student Resources on Evolve, available at http://evolve.elsevier.com/Varcarolis, provide a variety of valuable learning assets. The Evolve page inside the front cover lists log-in instructions.

- **Animations** of the neurobiology of select psychiatric disorders and medications make complex concepts come to life with multidimensional views. You can find these illustrations in the textbook with the icon  next to them.

- **Answer Keys to Critical Thinking Guidelines** provide possible outcomes for the Critical Thinking questions at the end of each chapter.
- **Case Studies and Nursing Care Plans** provide detailed case studies and care plans for specific psychiatric disorders to supplement those found in the textbook.
- The **Glossary** provides an alphabetical list of nursing terms with accompanying definitions.
- **NCLEX® Review Questions,** provided for each chapter, will help students prepare for course examinations and for the RN licensure examination.
- **Pretests** and **Posttests** provide interactive self-assessments for each chapter of the textbook, including instant scoring and feedback at the click of a button.
- **Answers and Rationales for NGN Case Studies and Questions** provides answers for the NGN case studies in the textbook's clinical chapters.

We are grateful to educators who send suggestions and provide feedback and strive to incorporate these ideas from this huge pool of experts into reprints and revisions of *Foundations*. We hope this 9th edition continues to help students learn and appreciate the scope and practice of psychiatric-mental health nursing.

Peggy Halter

Psychiatric-mental health nursing challenges us to understand the complexities of the brain and human behavior. We focus on the origin of psychiatric disorders, including biological determinants and environmental factors. In the chapters that follow, you will learn about people who experience psychiatric disorders and how to provide them with quality nursing care in any setting. As you read, keep in mind these special features.

READING AND REVIEW TOOLS

Objectives and **Key Terms and Concepts** introduce the chapter topics and provide a concise overview of the material discussed.

Key Points to Remember at the end of each chapter reinforce essential information.

Critical Thinking activities at the end of each chapter are scenario-based critical thinking problems for practice in applying what you have learned. **Answer Guidelines** can be found on the Evolve website.

Ten multiple-choice **Chapter Review** questions at the end of each chapter help you review the chapter material and study for exams. **Answers** are conveniently provided following the questions. **Answers** along with **rationales** and textbook **page references** are located on the Evolve website.

ADDITIONAL LEARNING RESOURCES

Your **Evolve Resources** at *http://evolve.elsevier.com/Varcarolis* offer more helpful study aids, such as additional Case Studies and Nursing Care Plans.

CHAPTER FEATURES

Vignettes are short stories that describe the unique circumstances surrounding individual patients with psychiatric disorders.

Self-Assessment sections explore thoughts and feelings you may experience working with patients who have psychiatric disorders. These thoughts and feelings may need to be addressed to enhance self-growth and provide the best possible and most appropriate care to patients.

Assessment Guidelines in the clinical chapters provide summary points for patient assessment.

Evidence-Based Practice boxes demonstrate how current research findings affect psychiatric-mental health nursing practice and standards of care.

Considering Culture boxes reinforce the importance of incorporating culturally sensitive care as part of patient-centered care.

Health Policy boxes promote the vital topic of healthcare advocacy and the role of nurses in influencing and determining the political process.

FDA-Approved Drug tables present the latest information on medications used to treat psychiatric disorders.

Patient and Family Teaching boxes underscore the nurse's role in helping patients and families understand psychiatric disorders, treatments, complications, and medication side effects, among other important issues.

Case Studies and Nursing Care Plans present individualized histories of patients with specific psychiatric disorders following the steps of the nursing process. Interventions with rationales and evaluation statements are presented for each patient goal.

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Mental Health and Mental Illness

Margaret Jordan Halter

Visit the Evolve website for a pretest on the content in this chapter: http://evolve.elsevier.com/Varcarolis

OBJECTIVES

1. Define mental health and mental illness.
2. Describe the continuum of mental health and mental illness.
3. Discuss risk and protective factors for mental illness and mental health.
4. Explore the role of resilience in the prevention of and recovery from mental illness and consider resilience in response to stress.
5. Identify how culture influences the view of mental illnesses and behaviors associated with them.
6. Discuss the nature/nurture origins of psychiatric disorders.
7. Summarize the social influences of mental healthcare in the United States.
8. Discuss the role of public policy on mental health funding.
9. Explain how epidemiological knowledge supports mental healthcare.
10. Identify how the *Diagnostic and Statistical Manual, Fifth Edition (DSM-5)* is used for diagnosing psychiatric conditions.
11. Describe the specialty of psychiatric-mental health nursing.
12. Discuss future challenges and opportunities for mental healthcare in the United States.

KEY TERMS AND CONCEPTS

clinical epidemiology
comorbid condition
cultural competence
Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)
diathesis-stress model
electronic healthcare
epidemiology
incidence
mental health
mental health continuum
mental illness
phenomena of concern
prevalence
psychiatric-mental health advanced practice registered nurse (PMH-APRN)
psychiatric-mental health nursing
psychiatric-mental health registered nurse (PMH-RN)
recovery
resilience
stigma

If you are a fan of vintage films, you may have witnessed a scene similar to this: A doctor, wearing a lab coat, carrying a clipboard, and displaying an expression of deep concern, enters a hospital waiting room. He approaches an obviously distraught gentleman seated there. The doctor says, "I'm afraid your wife has suffered a nervous breakdown."

From that point on in the film, the woman's condition is only vaguely hinted at. The husband dutifully drives through the asylum gates and enters the stately building. Sounds of sobbing or shrieking patients are heard. Patients are rocking on the floor or shuffling down the hall.

As he nears his wife's room, the staff regard him with sad expressions and keep a polite distance. He may find his wife lying in her bed motionless, standing by the window and staring vacantly into the distance, or sitting with other patients in the hospital's garden. The viewer can only speculate about the actual nature of the woman's illness.

MENTAL HEALTH AND MENTAL ILLNESS

We have come a long way in acknowledging and addressing mental illness since the days of nervous breakdowns. In your

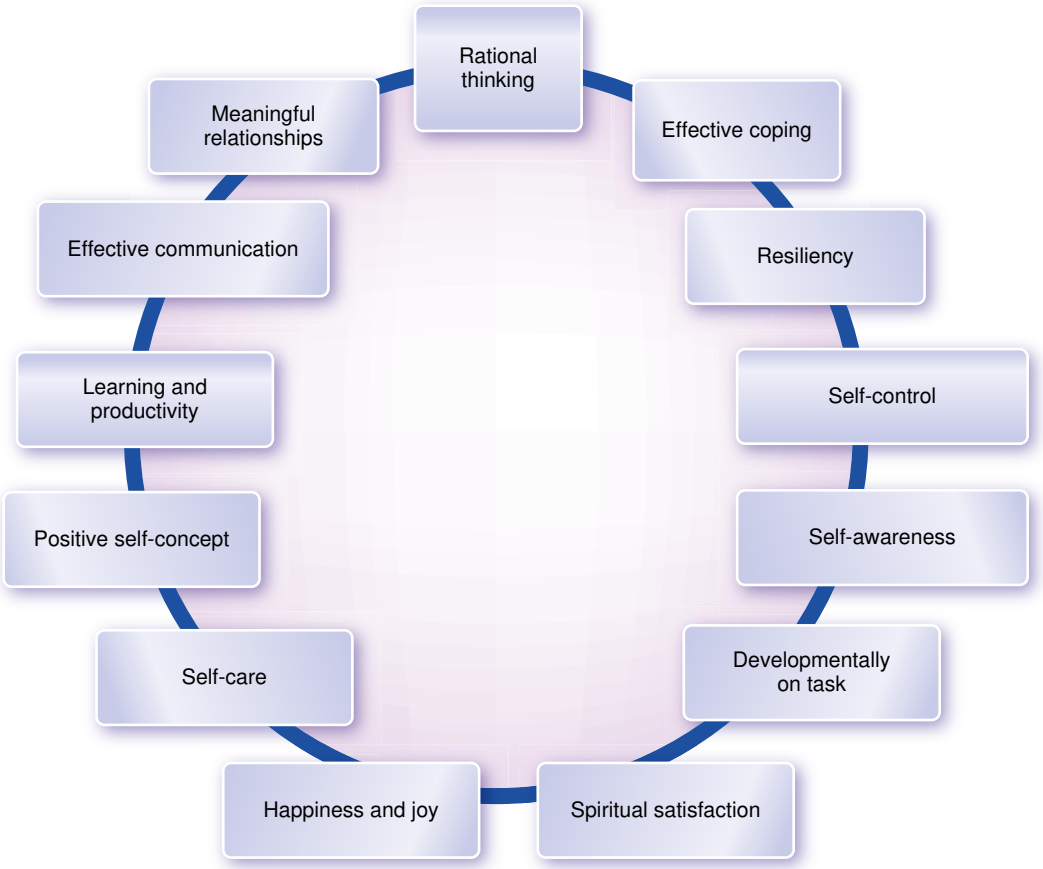

Fig. 1.1 Some attributes of mental health.

psychiatric-mental health nursing course, you will learn about psychiatric disorders, associated nursing care, and treatments. As a foundation for this learning, we will begin by exploring what it means to be mentally healthy.

First, overall health is not possible without good mental health. The World Health Organization (2019) describes health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." There is a strong relationship between physical health and mental health: Poor physical health can lead to mental distress and disorders, and poor mental health can lead to physical problems.

What does it mean to be mentally healthy? The World Health Organization (2018a) again provides us with a useful definition. **Mental health** is a state of well-being in which individuals reach their own potential, cope with the normal stresses of life, work productively, and contribute to the community. Mental health provides people with the capacity for rational thinking, communication skills, learning, emotional growth, resilience, and self-esteem. Some of the attributes of mentally healthy people are shown in Fig. 1.1.

Society's definition of mental illness evolves over time. It is a definition shaped by the prevailing culture and societal values, and it reflects changes in cultural norms, social expectations, political climates, and even reimbursement criteria by third-party payers.

In the past, the term *mental illness* was applied to behaviors considered "strange" and "different," behaviors that occurred infrequently and deviated from established norms. Such criteria are inadequate because they suggest that mental health is based on conformity. Applying that definition to nonconformists and independent thinkers such as Abraham Lincoln, Mahatma Gandhi, and Florence Nightingale might result in a judgment of mental illness. Although the sacrifices of a Mother Teresa or the dedication of Martin Luther King, Jr. are uncommon, virtually none of us would consider these much-admired behaviors to be signs of mental illness.

Mental illness refers to all psychiatric disorders that have definable diagnoses. These disorders are manifested in significant dysfunctions that may be related to developmental, biological, or psychological disturbances in mental functioning. The ability to think may be impaired—as in Alzheimer's disease. Emotions may be affected—as in major depressive disorders. Behavioral alterations may be apparent—as in schizophrenia. People may experience some combination of the three alterations.

Mental illness is such a common problem that most of us know someone with a disorder. You may even have one yourself. According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2020), in 2019:

- One in five, or nearly 21%, of American adults experienced a mental health illness.
- Young adults aged 18 to 25 had the highest level of mental illness, with a prevalence of about 24%.

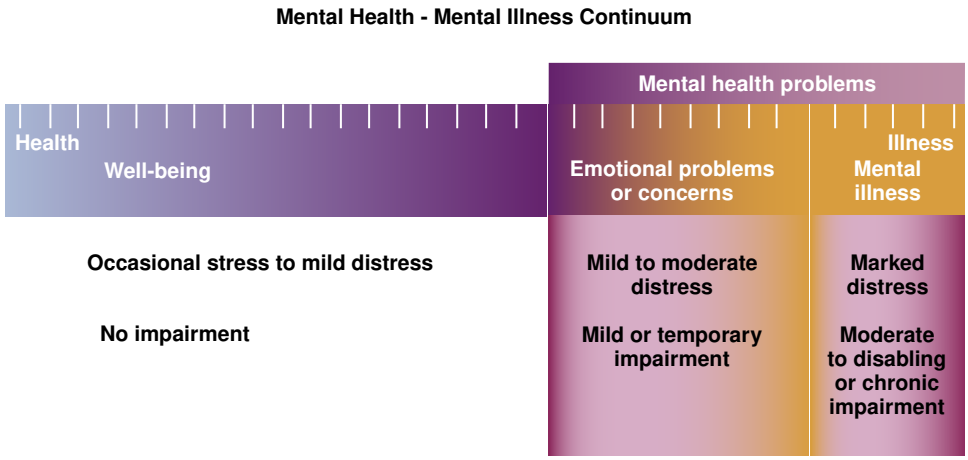

Fig. 1.2 Mental health–mental illness continuum. (From University of Michigan, "Understanding U." [2007]. *What is mental health?* Retrieved from https://hr.umich.edu/benefits-wellness/health/mhealthy/mental-emotional-well-being/understanding-mental-emotional-health/mental-emotional-health-classes-training-events/online-tutorial-supervisors/section-1-what-you-need-know-about-mental-health-problems-substance-misuse.)

- About 5.2% of Americans lived with a serious mental illness, such as schizophrenia, bipolar disorder, or major depressive disorder.
- Approximately 0.06% of adults attempted suicide, and 1.2% of young adults aged 18 to 25 attempted suicide.

MENTAL HEALTH CONTINUUM

You may wonder if there is some middle ground between mental health and mental illness. After all, it is a rare person who does not have concerns regarding mental functioning at one time or another. The answer is that there is definitely a middle ground. In fact, mental health and mental illness can be conceptualized as points along a **mental health continuum** (Fig. 1.2).

On one end of the continuum is mental health. A sense of well-being describes the general state of people in this category. Well-being is characterized by adequate to high-level functioning. Although individuals at this end of the continuum may experience stress and discomfort resulting from problems of everyday life, they experience no serious impairments in daily functioning.

For example, you may spend a day or two in a gray cloud of self-doubt and recrimination over a failed exam, a sleepless night filled with worry about trivial concerns, or months of genuine sadness and mourning after the death of a loved one. During those low times, you are fully or vaguely aware that you are not functioning well. However, time, exercise, a balanced diet, rest, interaction with others, and mental reframing may alleviate these problems or concerns.

At the opposite end of the continuum is mental illness. Individuals may have emotional problems or concerns and experience mild to moderate discomfort and distress. Mild impairment in functioning such as insomnia, lack of concentration, or loss of appetite may be felt. If the distress increases or persists, individuals might seek professional help. Problems in this category tend to be temporary, but individuals with mild depression, generalized anxiety disorder, and attention-deficit disorder may fit into this group.

The most severely affected individuals fall into the mental illness portion of the continuum. At this point, individuals experience altered thinking, mood, and behavior. It may include relatively common disorders such as depression and anxiety, as well as major disorders such as schizophrenia. The distinguishing factor in mental illness is typically chronic or long-term impairments that range from moderate to disabling.

All of us fall somewhere on the mental health–mental illness continuum and experience gradual or sudden shifts. Many people will never experience the mental illness stage. On the other hand, many people who do reach a more severe level of impairment can experience recovery that ranges from a glimmer of hope to leading a satisfying and fulfilling life.

People who have experienced mental illness can testify to the existence of changes in functioning. The following comments of a 40-year-old woman illustrate the continuum between illness and health as her condition ranged from deep depression to mania to well-being (recovery):

Depression	*It was horror and hell. I was at the bottom of the deepest and darkest pit there ever was. I was worthless and unforgivable. I was as good as—no, worse than—dead.*
Mania	*I was incredibly alive. I could sense and feel everything. I was sure I could do anything, accomplish any task, and create whatever I wanted if only other people wouldn't get in my way.*
Well-being (recovery)	*I am much calmer. I realize now that, when I was manic, it was a pressure-cooker feeling. When I am happy now, or loving, it is more peaceful and real. I have to admit that I sometimes miss the intensity—the sense of power and creativity—of those manic times. I never miss anything about the depressed times, but of course the power and the creativity never bore fruit. Now I do get things done, some of the time, like most people. And people treat me much better now. I guess I must seem more real to them. I certainly seem more real to me (Altrocchi, 1980).*

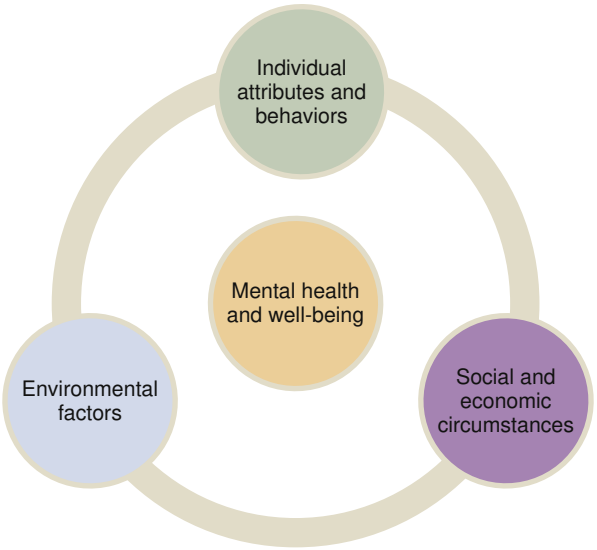

Fig. 1.3 Contributing factors to mental health and well-being. (From World Health Organization. (2013). Mental health: An action plan 2013-2020. Retrieved from https://apps.who.int/iris/rest/bitstreams/424776/retrieve.)

RISK AND PROTECTIVE FACTORS

Many factors can affect the severity and progression of a mental illness, as well as the mental health of a person who does not have a mental illness. Individual characteristics and attributes influence mental health and well-being (WHO, 2013). Socioeconomic circumstances and the environment also influence mental health (Fig. 1.3).

Individual Attributes and Behaviors

Individual attributes refer to characteristics that are both inborn and learned that make us who we are. We all have unique ways of managing thoughts and feelings and navigating the everyday pressures of life. The ability to respond to social cues and participate in social activities influences our view of ourselves and how others view us.

Biological and genetic factors can also influence mental health. Prenatal exposure to alcohol and oxygen deprivation at birth are two examples of biological factors. Genetic factors are huge predictors of mental health and are implicated in nearly every psychiatric disorder.

What makes some people adapt to tragedy, loss, trauma, and severe stress better than others? The answer may be the individual attribute of resilience. **Resilience** is the ability and capacity for people to secure the resources they need to support their well-being. It is a quality found in some children of poverty and abuse who seek out trusted adults. These adults provide them with the psychological and physical resources that allow them to excel.

Being resilient does not mean being unaffected by stressors. People who are resilient are effective at regulating their emotions and not focusing on negative, self-defeating thoughts. You can get an idea of how good you are at regulating your emotions and coping with difficult situations by using the Brief Resilient Coping Scale in Box 1.1.

BOX 1.1 Brief Resilient Coping Scale

Consider how well the following statements describe your behavior and actions:

1. I look for creative ways to alter difficult situations.
   1 = Does not describe me at all
   2 = Does not describe me
   3 = Neutral
   4 = Describes me
   5 = Describes me very well
2. Regardless of what happens to me, I believe I can control my reaction to it.
   1 = Does not describe me at all
   2 = Does not describe me
   3 = Neutral
   4 = Describes me
   5 = Describes me very well
3. I believe that I can grow in positive ways by dealing with difficult situations.
   1 = Does not describe me at all
   2 = Does not describe me
   3 = Neutral
   4 = Describes me
   5 = Describes me very well
4. I actively look for ways to replace the losses I encounter in life.
   1 = Does not describe me at all
   2 = Does not describe me
   3 = Neutral
   4 = Describes me
   5 = Describes me very well

The possible score range on the Brief Resilient Coping Scale is from 4 (low resilience) to 20 (high resilience). According to the authors of the scale, scores can be interpreted as follows:

Score	Interpretation
4-13	Low resilient copers
14-16	Medium resilient copers
17-20	High resilient copers

From Sinclair, V. G., & Wallston, K.A. (2004). The development and psychometric evaluation of the Brief Resilient Coping Scale. *Assessment, 11*(1), 94-101.

Social and Economic Circumstances

Your immediate social surroundings impact personal attributes. The earliest social group, the family, has tremendous effects on developing and vulnerable humans. The family sets the stage in promoting confidence and coping skills or for instilling anxiety and feelings of inadequacy.

The social environment extends to schools and peer groups. Again, this environment has the ability to affect mental health positively and negatively. For example, socioeconomic status dictates the sort of resources available to support mental health and reduce concerns over basic needs such as food, clothing, and shelter. Educational advancement is a tremendous supporter of mental health by providing opportunities for a satisfying career, security, and economic benefits.

Environmental Factors

The overall environment that affects mental health relates to the political climate and cultural considerations. Access and lack of access to basic needs and commodities such as healthcare, water, safety services, and a strong highway system have a profound effect on community mental health. Social and economic policies, which are formed at the global, national, state, and local government levels, also impact mental health. For example, in the United States, laws have been gradually shifting toward better reimbursement for mental health services. This shift makes it easier to access and improve mental healthcare.

Predominant cultural beliefs, attitudes, and practices influence mental health. There is no standard measure for mental health, partly because it is culturally defined. One approach to differentiating mental health from mental illness is to consider what a particular culture regards as acceptable or unacceptable. In this view, those with mental illness are those who violate social norms and thus threaten (or make anxious) those observing them.

Throughout history, people have interpreted health or sickness according to their own current views. A striking example of how cultural change influences the interpretation of mental illness is an old definition of *hysteria*. According to *Webster's Dictionary* (Porter, 1913), hysteria was:

> *A nervous affection…in women, in which the emotional and reflex excitability is exaggerated, and the will power correspondingly diminished, so that the patient loses control over the emotions, becomes the victim of imaginary sensations, and often falls into paroxysm or fits.*

Treatment for this condition, thought to be the result of sexual deprivation, often involved sexual activity. Thankfully, this diagnosis fell into disuse as women's rights improved, the family atmosphere became less restrictive, and societal tolerance of sexual practices increased.

Cultures differ not only in their views regarding mental illness but also the types of behavior categorized as mental illness. Culture-bound syndromes seem to occur in specific sociocultural contexts, and people in those cultures easily recognized them. For example, one syndrome recognized in parts of Southeast Asia is running amok, in which a person (usually a male) runs around engaging in almost indiscriminate violent behavior. In the United States and other developed countries such as those in Europe and Australia, anorexia nervosa is recognized as a disorder characterized by voluntary starvation. Until recently, this disorder was unheard of in third-world countries. However, social media may be contributing to the proliferation of anorexia through increased awareness of its existence.

Perceptions of Mental Health and Mental Illness

Mental Illness Versus Physical Illness

People often make a distinction between mental illnesses and physical illnesses. This is a peculiar distinction. *Mental* refers to the brain, the most complex part of the body, responsible for the higher thought processes that set us apart from all other creatures. Surely the workings of the brain—the synaptic connections, the areas of functioning, the spinal innervations and connections—are *physical*.

One problem with this distinction is that it implies that psychiatric disorders are "all in the head." Most damaging is the belief that these disorders are under personal control and indistinguishable from a choice to engage in bad behavior. These beliefs support the **stigma** to which people with mental illness are often subjected. Stigma, the belief that the overall person is flawed, is characterized by social shunning, disgrace, and shame.

Perhaps the difference between mental and physical illness lies in the tradition of explaining the unexplainable through superstition. Consider that the frightening convulsions of epilepsy were once explained as demon possession or a curse. Unfortunate individuals with epilepsy were subjected to horrible treatment, including shunning, imprisonment, and exorcisms. We now recognize that seizures are the result of electrical disturbances in the brain and not under personal control. How do we know? Because we can *see* epilepsy on brain scans as areas of overactivity and excitability.

There are no specific biological tests to diagnose most psychiatric disorders—no cranium culture for major depressive disorder and no magnetic resonance imaging (MRI) for obsessive-compulsive disorder (OCD). However, researchers are convinced that the root of most mental disorders lies in intercellular abnormalities. We can now see clear signs of altered brain function and/or structure in several psychiatric disorders, including schizophrenia, OCD, anxiety, and depression.

Nature Versus Nurture

For centuries, people believed that extremely unusual behaviors resulted from supernatural (usually evil) forces. In the late 1800s, the mental health pendulum swung briefly to a biological focus with the "germ theory of diseases." Germ theory explained mental illness in the same way other illnesses were being described (i.e., a specific agent in the environment caused them). This theory was abandoned rather quickly because clinicians and researchers could not identify causative factors for mental illnesses. There was no "mania germ" that could be viewed under a microscope and subsequently treated.

Although biological treatments for mental illness continued to be explored, psychological theories dominated and focused on the science of the mind and behavior. These theories explained the origin of mental illness as faulty psychological processes that could be corrected by increasing personal insight and understanding. For example, a patient experiencing depression and apathy could be assisted to explore feelings from childhood when overly protective parents strictly discouraged attempts at independence.

This psychological focus was challenged in 1952 when chlorpromazine (Thorazine) was found to have a calming effect on patients experiencing agitation and feeling out of control. Imagine what this discovery must have been like for clinicians. Out of desperation they had resorted to every biological treatment imaginable, including wet wraps, insulin shock therapy,

and psychosurgery (in which holes were drilled in the head of a patient and probes inserted into the brain) as attempts to change behavior. The scientific community began to believe that if psychiatric problems respond to medications that alter neurochemistry, then a disruption of intercellular components must already be present.

A **diathesis-stress model**—in which diathesis represents biological predisposition and stress represents environmental stress or trauma—is the most accepted explanation for mental illness. This nature-*plus*-nurture argument asserts that most psychiatric disorders result from a combination of genetic vulnerability and negative environmental stressors. One person may develop major depressive disorder largely as the result of an inherited and biological vulnerability that alters brain chemistry. Another person with little vulnerability may develop depression as a result of a stressful environment that causes changes in brain chemistry.

Social Influences on Mental Healthcare

Consumer Movement and Mental Health Recovery

More than 100 years ago, tremendous energy was directed toward improving equality in the United States. Black men were given the right to vote in 1870, as were women, finally, in 1920. Treating people fairly and challenging labels became a focus of the American culture.

With regard to treatment of people with mental illness, decades of institutionalization had created significant political and social concerns. Groups of people with mental illnesses—frequently called mental health consumers—began to advocate for their rights and fought against discrimination and forced treatment.

In 1979, people with mental illnesses and their families formed a nationwide advocacy group, the National Alliance on Mental Illness (NAMI). In the 1980s, individuals in the consumer movement organized by NAMI began to resist the traditional arrangement of mental healthcare providers dictating treatment without the input of the patient. This paternalistic relationship was demoralizing, and it also implied that patients were not competent to make their own decisions. Consumers demanded increased involvement in decisions concerning their treatment.

The consumer movement also promoted the concept of **recovery**, a new and an old idea. On one hand, it represents a concept that has been around a long time: that some people—even those with the most serious illnesses such as schizophrenia—recover. One recovery was depicted in the movie *A Beautiful Mind*. In this film, a brilliant mathematician, John Nash, seems to have emerged from a continuous cycle of devastating psychotic relapses to a state of stabilization and recovery (Howard, 2001).

A newer conceptualization of recovery evolved into a consumer-focused process. According to the SAMHSA (2012), recovery is "a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential." The focus is on the consumer and the consumer's abilities. A real-life example of recovery follows in the vignette.

VIGNETTE: Jeff began hearing voices when he was 19 and was diagnosed with schizophrenia the same year. He dropped out of college, lost his part-time job at a factory, and began collecting Social Security Disability Income. For 20 years, Jeff was told what medication to take, where to live, and what to do.

At the community health center where he received services, he met a fellow patient, Linda, who was involved with a recovery support group. She gave him a pamphlet with a list of the 10 guiding principles of recovery:

1. **Recovery emerges from hope:** Recovery provides the essential motivating message of a better future: That people can and do overcome the barriers and obstacles that confront them. Hope is the catalyst of the recovery process.
2. **Recovery is person driven:** Self-determination and self-direction are the foundations for recovery. Consumers lead, control, exercise choice over, and determine their own path of recovery.
3. **Recovery occurs through many pathways:** Individuals are unique with distinct needs, strengths, preferences, goals, culture, and background (including past trauma) that affect their pathways to recovery. Recovery is nonlinear and may involve setbacks. Abstinence from the use of alcohol, nonprescribed medications, and tobacco is essential. A supportive environment is essential, especially for children.
4. **Recovery is holistic:** Recovery encompasses an individual's whole life, including mind, body, spirit, and community.
5. **Recovery is supported by peers and allies:** Mutual support and aid groups play an invaluable role in recovery. Peers improve social learning, provide experiential knowledge and skills, and a sense of belonging. Helping others helps one's self.
6. **Recovery is supported through relationships and social networks:** The presence and involvement of people who believe in the person's ability to recover; who offer hope, support, and encouragement; and who suggest strategies and resources for change are important.
7. **Recovery is culturally based and influenced:** Culture and cultural background are keys in determining a person's journey and unique pathway to recovery. Services should be culturally grounded, attuned, sensitive, congruent, and competent, as well as personalized to meet unique needs.
8. **Recovery is supported by addressing trauma:** Trauma (e.g., physical or sexual abuse, domestic violence, war, disaster) is associated with substance use and mental health problems. Services and supports should be trauma-informed to foster safety and trust, as well as promote choice, empowerment, and collaboration.
9. **Recovery involves individual, family, and community strengths and responsibility:** Individuals, families, and communities have strengths and resources that serve as a foundation for recovery.
10. **Recovery is based on respect:** Community, systems, and societal acceptance and appreciation of consumers—including protecting their rights and eliminating discrimination and stigma—are crucial in achieving recovery.

Jeff's involvement in the recovery support group changed his view of himself, and he began to take the lead role in his own care. According to Jeff, "Nobody knows your body better than you do, and some, maybe some mental health providers or doctors, think, 'Hey, I am the professional, and you're the person seeing me. I know what's best for you.' But technically, it isn't true. They only provide you with the tools to get better. They can't crawl inside you and see how you are."

Jeff asked for and received newer, more effective medications. He moved into his own apartment and returned to community college and focused on information technology. Jeff now attends recovery support groups regularly and has taken up bicycling. He has his high and low days but maintains goals, hope, and a purpose for his life.

Adapted from Substance Abuse and Mental Health Administration. (2012). *SAMHSA's working definition of recovery updated.* Retrieved from http://blog.samhsa.gov/2012/03/23/defintion-of-recovery-updated/#.VpQInpMrLBI.

Decade of the Brain

In 1990, President George H.W. Bush designated the last decade of the 1900s as the Decade of the Brain. The overriding goal of this designation was to make legislators and the public aware of the advances that had been made in neuroscience and brain research. This US initiative stimulated a worldwide growth of scientific research. Advances and progress made during the Decade of the Brain include:

- Understanding the genetic basis of embryonic and fetal neural development
- Mapping genes involved in neurological illnesses, including mutations associated with Parkinson's disease, Alzheimer's disease, and epilepsy
- Discovering that the brain uses a relatively small number of neurotransmitters but has a vast assortment of neurotransmitter receptors
- Uncovering the role of cytokines (proteins involved in the immune response) in such disorders as depression
- Refining neuroimaging techniques
- Bringing together computer modeling and laboratory research, which resulted in the new discipline of computational neuroscience.

Surgeon General's Report on Mental Health

The first Surgeon General's report on the topic of mental health was published in 1999 (US Department of Health and Human Services, 1999). This landmark document was based on an extensive review of the scientific literature in consultation with mental health providers and consumers. The two most important messages from this report were that (1) mental health is fundamental to overall health and (2) there are effective treatments. The report is reader-friendly and a good introduction to mental health and illness. You can review the report at http://www.surgeongeneral.gov/library/mentalhealth/home.html.

Human Genome Project

The Human Genome Project was a 13-year project that lasted from 1990 to 2003 and was completed on the 50th anniversary of the discovery of the DNA double helix. The project has strengthened biological and genetic explanations for psychiatric conditions. The goals of the project (US Department of Energy, 2008) were to do the following:

- **Identify** the approximately 20,000 to 25,000 genes in human DNA.
- **Determine** the sequences of the 3 billion chemical base pairs that make up human DNA.
- **Store** this information in databases.
- **Improve** tools for data analysis.
- **Address** the ethical, legal, and social issues that may arise from the project.

Researchers are continuing to make progress in understanding genetic underpinnings of diseases and disorders. You will be learning about these advances in the clinical chapters that follow.

President's New Freedom Commission on Mental Health

The President's New Freedom Commission on Mental Health chaired by Michael Hogan released its recommendations for mental healthcare in America in 2003. This was the first commission since First Lady Rosalyn Carter's (wife of President Jimmy Carter) in 1978. The report stated that the system of delivering mental healthcare in America was in shambles. It called for a streamlined system with less fragmentation in the delivery of care. The commission advocated for early diagnosis and treatment, adoption of principles of recovery, and increased assistance in helping people find housing and work. Box 1.2 describes the goals necessary for such a transformation of mental healthcare in the United States.

BOX 1.2 Goals for a Transformed Mental Health System in the United States

Goal 1
Americans understand that mental health is essential to overall health.
Goal 2
Mental healthcare is consumer and family driven.
Goal 3
Disparities in mental health services are eliminated.
Goal 4
Early mental health screening, assessment, and referral to services are common practice.
Goal 5
Excellent mental healthcare is delivered, and research is accelerated.
Goal 6
Technology is used to access mental healthcare and information.

Data from US Department of Health and Human Services, President's New Freedom Commission on Mental Health. (2003). *Achieving the promise: Transforming mental health care in America.* USDHHS Publication No. SMA-03–3832. Retrieved from http://www.mentalhealthcommission.gov/reports/finalreport/fullreport-02.htm.

Institute of Medicine

The *Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series* was released in 2005 by the Health and Medicine Division (HMD) of the National Academies of Medicine, formerly the Institute of Medicine (IOM, 2005). It highlighted effective treatments for mental illness and addressed the huge gap between the best care and the worst. It focused on such issues as the problem of coerced (forced) treatment, a system that treats mental health issues separately from physical health problems, and lack of quality control. The report encouraged healthcare workers to focus on safe, effective, patient-centered, timely, efficient, and equitable care.

Another important and related publication issued by the IOM in 2011 is *The Future of Nursing: Focus on Education.* This report contends that the old way of training nurses is not adequate for the 21st century's complex requirements. It calls for highly educated nurses who are prepared to care for an aging and diverse population with an increasing incidence of chronic disease. They recommended that nurses be trained in leadership, health policy, system improvement, research, and teamwork.

Quality and Safety Education for Nurses. Recommendations from both documents were addressed by a group called Quality and Safety Education for Nurses (QSEN; pronounced *Q-sen*) and were funded by the Robert Wood

Johnson Foundation. They developed a structure to support the education of future nurses who possess the knowledge, skills, and attitudes to continuously improve the safety and quality of healthcare.

QSEN principles improve patient care and even save lives. The case of Betsy Lehman, a health reporter for the Boston Globe who was married to a cancer researcher, helps to illustrate the role of QSEN principles. When she herself was diagnosed with cancer, she was prescribed an incorrect, extremely high dose of an anticancer drug. Ms. Lehman sensed something was wrong and appealed to the healthcare providers, who did not respond to her concerns. The day before she died, she begged others to help because the professionals were not listening (Robert Wood Johnson Foundation, 2011).

How could her death have been prevented? Consider the key areas of care promoted by QSEN and how they could have prevented Ms. Lehman's death:

1. **Patient-centered care:** Care should be given in an atmosphere of respect and responsiveness, and the patient's values, preferences, and needs should guide care.
2. **Teamwork and collaboration:** Nurses and interprofessional teams need to maintain open communication, respect, and shared decision making.
3. **Evidence-based practice:** Optimal healthcare is the result of integrating the best current evidence while considering the patient/family values and preferences.
4. **Quality improvement:** Nurses should be involved in monitoring the outcomes of the care that they give. They should also be care designers and test changes that will result in quality improvement.
5. **Safety:** The care provided should not add further injury (e.g., nosocomial infections). Harm to patients and providers are minimized through both system effectiveness and individual performance.
6. **Informatics:** Information and technology are used to communicate, manage knowledge, mitigate error, and support decision making.

Brain Research Through Advancing Innovative Neurotechnologies Initiative

In 2013, President Barack Obama announced that $300 million in public and private funding would be devoted to the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. This money would be used to develop innovative techniques and technologies to unravel the mystery of how the brain functions. The goal is to uncover new ways to prevent, treat, and cure psychiatric disorders, epilepsy, and traumatic brain injury.

According to the National Institutes of Health (2016) more than $70 million is going to over 170 researchers working at 60 different institutions. These researchers are examining such topics as:

- Developing computer programs that may help researchers to detect and diagnose autism and Alzheimer's disease from brain scans
- Building a cap that uses ultrasound waves to precisely stimulate brain cells
- Creating a "neural dust" system made of tiny electric sensors for wirelessly recording brain activity
- Improving current rehabilitation technologies for helping the lives of stroke patients
- Studying how the brain reads and speaks

Research Domain Criteria Initiative

In other specialty areas, symptom-based classification has been replaced by more scientific understanding of the problem. For example, physicians do not make a cardiac diagnosis depending on the type of chest pain a person is having but rather on diagnosing the specific problem, such as myocarditis. Psychiatry continues to rely heavily on symptoms in the absence of objective and measurable data.

In 2013, the National Institute of Mental Health (NIMH) announced that it would no longer fund *Diagnostic and Statistical Manual (DSM)* diagnosis-based studies. Instead, it would put all of its time, effort, and money into something called the Research Domain Criteria (RDoC) Initiative. This initiative challenges researchers to seek causes for mental disorders at the molecular level. NIMH hopes to transform the current diagnostic procedure by using genetics, imaging, and fresh information to create a new classification system.

LEGISLATION AND MENTAL HEALTH FUNDING

Mental Health Parity

Imagine insurance companies singling out a group of disorders such as digestive diseases for reduced reimbursement. Imagine people with colon cancer being assigned higher copays than other cancers. Imagine limiting the number of treatments for which patients could be reimbursed for Crohn's disease over a lifetime. People would be outraged by such discrimination. Yet this is exactly what happened with psychiatric disorders. Too often, insurance companies:

- Did not cover mental healthcare at all
- Identified yearly or lifetime limits on mental health coverage
- Limited hospital days or outpatient treatment sessions
- Assigned higher copayments or deductibles

In response to this problem, advocates fought for parity, a term that refers to equivalence or equal treatment. The Mental Health Parity Act was passed in 1996. This legislation required insurers that provide mental health coverage to offer annual and lifetime benefits at the same level provided for medical/surgical coverage. Unfortunately, by the year 2000, the Government Accounting Office found that although 86% of health plans complied with the 1996 law, 87% of those plans actually imposed new limits on mental health coverage.

The Wellstone-Domenici Parity Act was enacted in 2008 for group health plans with more than 50 employees. The law required that any plan providing mental health coverage must do so in a manner that is functionally equivalent or on par with coverage of other health conditions. This parity pertains to deductibles, copayments, coinsurance, and out-of-pocket expenses, as well as treatment limitations (e.g., frequency of treatment and number/frequency of visits).

Patient Protection and Affordable Care Act of 2010

Parity laws were a good first step in providing more equitable coverage for mental healthcare. However, parity laws do not

require health plans to cover psychiatric care. Furthermore, the parity laws only applied to large insurers. The Patient Protection and Affordable Care Act (ACA) of 2010 improved coverage for most Americans who are uninsured through a combination of expanded Medicaid eligibility (for the very poor) and the creation of Health Insurance Exchanges in the states to serve as a broker to help uninsured consumers choose among various plans. The so-called "insurance mandate" added a requirement that people without coverage obtain it. The ACA improved mental healthcare coverage in several ways:

- Eliminated medical underwriting in the individual and small group markets, so medical history no longer resulted in enrollment denials for preexisting conditions or higher premiums.
- Required all individual and small group health plans to cover 10 essential health benefits with no annual or lifetime dollar limits. Mental health and addiction treatment were among the essential benefits.
- Made health insurance with mental health benefits available for many individuals who previously had been uninsured. Significant numbers of these (mostly low-income) persons had untreated mental health problems.
- Allowed young adults to remain on their parents' health plans until age 26. This is important to mental health since most psychiatric disorders emerge in adolescence or early 20s.

Insurance regulation changes have occurred since the 2016 presidential election. One of the most significant changes has been expanded access to short-term health insurance plans. These plans are not subject to parity rules for mental health coverage. Individuals may not be aware of this until they are faced with treatment for psychiatric conditions or substance use.

EPIDEMIOLOGY OF MENTAL DISORDERS

Epidemiology, as it applies to psychiatric-mental health, is the quantitative study of the distribution of mental disorders in human populations. Understanding this distribution helps to identify high-risk groups and risk factors associated with illness onset, duration, and recurrence. In clinical chapters (i.e., Chapters 11 to 24) such as schizophrenia spectrum disorders and depressive disorders, epidemiology is consistently addressed. Understanding epidemiological terms will be helpful in interpreting those statistics.

According to SAMHSA (2020), nearly 52 million adults in the United States experienced a diagnosable mental illness in 2019. Major depressive disorder is the leading cause of disability worldwide, with more than 300 million people affected (World Health Organization, 2018b).

Individuals may have more than one mental disorder or another medical disorder. The presence of two or more disorders is known as **comorbidity**. They can occur at the same time or in sequence. For example, schizophrenia is frequently comorbid with diabetes due to side effects of antipsychotic medications. The interactions between the illnesses can worsen the course of both.

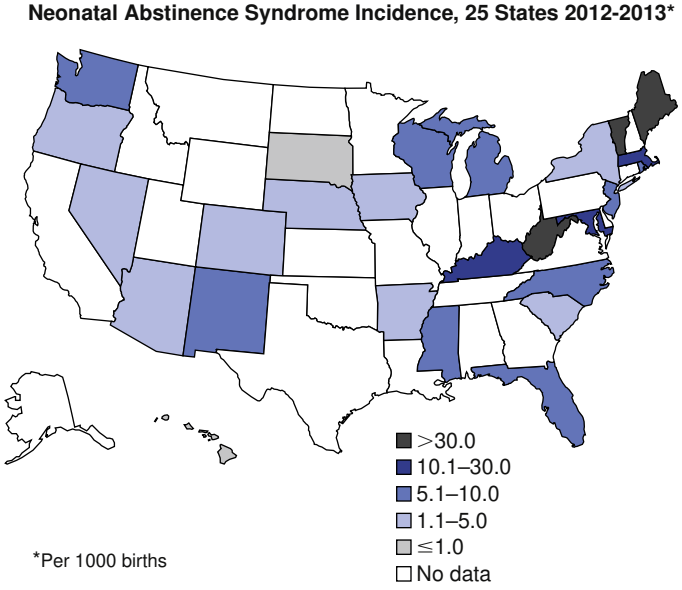

Fig. 1.4 Neonatal abstinence syndrome incidence. (Data from Ko, J. Y., Patrick, S. W., Tong, V. T., Patel, R., Lind, J. N., & Barfield, W. D. (2016). The incidence of neonatal abstinence syndrome—28 states, 1999–2013. *Morbidity and Mortality Weekly Report, 65*, 799–802.)

Two different but related words used in epidemiology are **incidence** and **prevalence**. *Incidence* conveys information about the risk of contracting a disease. It refers to the number of new cases of mental disorders in a healthy population within a given period of time, usually annually. An example of incidence pertains to the result of opioid use in pregnancy. The incidence of neonatal abstinence syndrome was 32,000 in 2014, a fivefold increase over the course of a decade (Winkelman et al., 2018). These numbers help to reveal a disturbing public health trend that should be addressed by healthcare providers and policy makers (Fig. 1.4).

Prevalence describes the total number of cases, new and existing, in a given population during a specific period of time, regardless of when they became ill. An example of prevalence is the number of 8-year-olds from 11 states with autism spectrum disorder. In 2014, 16.8 children out of 1000 (1 in 59) screened positively for these disorders at specific clinical sites (Baio et al., 2018). This prevalence rate of nearly 2% was higher than previously demonstrated at these clinical sites. Because these sites do not provide a representative sample of the entire United States, the results are not generalizable to all 8-year-olds.

A disease with a short duration such as the common cold tends to have a high incidence (many new cases in a given year) and a low prevalence (not many people suffering from a cold at any given time). Conversely, a chronic disease such as diabetes will have a low incidence because people will be dropped from the list of new cases after the first year (or whatever time increment is being used) and a high prevalence (given the long-term nature of the illness).

Lifetime risk data, or the risk that one will develop a disease in the course of a lifetime, will be higher than both incidence and prevalence. According to Kessler, Berglund, and colleagues (2005), 46.4% of all Americans will meet the criteria for a

TABLE 1.1 Twelve-Month Prevalence of Psychiatric Disorders in the United States

Disorder	Prevalence Over 12 Months (%)	12 Month % Receiving Treatment	Comments
Schizophrenia	1.1	45.8	Affects men and women equally
Major depressive disorder	6.7	51.7	Leading cause of disability in United States and established economies worldwide Nearly twice as many women (6.5%) as men (3.3%) suffer from major depressive disorder every year
Bipolar disorder	2.6	48.8	Affects men and women equally
Generalized anxiety disorder	3.1	43.2	Can begin across life cycle; risk is highest between childhood and middle age
Panic disorder	2.7	59.1	Typically develops in adolescence or early adulthood Approximately one in three people with panic disorder develop agoraphobia
Obsessive-compulsive disorder	1	No data	First symptoms begin in childhood or adolescence
Posttraumatic stress disorder (PTSD)	3.5	49.9	Can develop at any time Approximately 30% of Vietnam veterans experienced PTSD after the war; percentage high among first responders to September 11, 2001, US terrorist attacks
Social phobia	6.8	40.1	Typically begins in childhood or adolescence
Agoraphobia	0.08	45.8	Begins in young adulthood
Specific phobia	8.7	32.4	Begins in childhood
Any personality disorder	9.1	No data	Antisocial personality disorder more common in men
Alzheimer's disease	10 (65+) 50 (85 years+)		Rare, inherited forms can strike in the 30s–40s

Data from Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry, 62*(6), 617–627.

psychiatric disorder in their lifetimes. Table 1.1 shows the prevalence of some psychiatric disorders in the United States.

Originally, epidemiology meant the study of epidemics. **Clinical epidemiology** is a broad field that examines health and illness at the population level. Studies use traditional epidemiological methods and are conducted in groups usually defined by the illness or symptoms or by the diagnostic procedures or treatments given for the illness or symptoms. Clinical epidemiology includes the following:

- Studies of the natural history—what happens if there is no treatment and the problem is left to run its course—of an illness
- Studies of diagnostic screening tests
- Observational and experimental studies of interventions used to treat people with the illness or symptoms

Analysis of epidemiological studies can reveal the frequency with which psychological symptoms appear together with physical illness. For example, epidemiological studies demonstrate that depression is a significant risk factor for death in people with cardiovascular disease and premature death in people with breast cancer.

Classification of Mental Disorders

Nursing care, as opposed to medical care, is care based on responses to illness. Registered nurses do not diagnose, prescribe, and treat major depressive disorder. They treat the problems associated with depression, such as insomnia or hopelessness. Nurses provide effective care using the nursing process as a guide to holistic care. Nurses, physicians, and other healthcare providers are part of an interprofessional team. When the team is well coordinated, it can provide optimal care for the biological, psychological, social, and spiritual needs of patients.

To carry out their diverse professional responsibilities, educators, clinicians, and researchers need clear and accurate guidelines for identifying and categorizing mental illness. For clinicians in particular, such guidelines help in planning and evaluating their patients' treatment.

Currently, there are two major classification systems used in the United States: the *Diagnostic and Statistical Manual, Fifth Edition (DSM-5)* and the *International Classification of Disease, Tenth Revision, Clinical Modification (ICD-10-CM)* (WHO, 2016). Both are important in terms of planning patient care and determining reimbursement for services. However, the *DSM-5* is the dominant method of categorizing and diagnosing mental illness in the United States and is the framework for clinical disorders in this textbook.

The *DSM-5*

The *Diagnostic and Statistical Manual (DSM)* is a publication of the American Psychiatric Association (APA). First published in 1952, the latest 2013 edition describes criteria for 157 disorders. The development of the *DSM-5* was influenced by clinical field trials conducted by psychiatrists, psychiatric-mental health advanced practice registered nurses, psychologists, licensed clinical social workers, licensed counselors, and licensed marriage and family therapists.

The *DSM* identifies disorders based on specific criteria. It is used in inpatient, outpatient, partial hospitalization,

consultation-liaison, clinics, private practice, primary care, and community settings. The *DSM* also serves as a tool for collecting epidemiological statistics about the diagnosis of psychiatric disorders.

The following is a list of disorder categories in the *DSM-5*. You may notice that the order of the list is similar to the way the chapters are organized in this textbook.

1. Neurodevelopmental Disorders
2. Schizophrenia Spectrum Disorders
3. Bipolar and Related Disorders
4. Depressive Disorders
5. Anxiety Disorders
6. Obsessive-Compulsive Disorders
7. Trauma and Stressor-Related Disorders
8. Dissociative Disorders
9. Somatic Symptom Disorders
10. Feeding and Eating Disorders
11. Elimination Disorders
12. Sleep-Wake Disorders
13. Sexual Dysfunctions
14. Gender Dysphoria
15. Disruptive, Impulse Control, and Conduct Disorders
16. Substance-Related and Addictive Disorders
17. Neurocognitive Disorders
18. Personality Disorders
19. Paraphilic Disorders
20. Other Disorders

A common misconception is that a classification of mental disorders classifies *people*, when the *DSM* actually classifies *disorders*. For this reason, the *DSM* and this textbook avoid the use of stigmatizing labels such as he is "a schizophrenic" or "an alcoholic." Viewing the person as a person and not an illness requires more accurate terms such as "an individual with schizophrenia" or "my patient has major depressive disorder."

The *ICD-10-CM*

In an increasingly global society, it is important to view the United States' diagnosis and treatment of mental illness as part of a bigger picture. The international standard of disease classification is the *International Classification of Diseases, Tenth Revision (ICD-10)* (WHO, 2016). The United States has adapted this resource with a "clinical modification," hence its title of *ICD-10-CM*.

PSYCHIATRIC-MENTAL HEALTH NURSING

In most clinical settings, nurses work with people going through a variety of crises. These crises may be based on physical, psychological, mental, and spiritual distress. Most of you have already come across people going through difficult times in their lives. Although you may have handled these situations well, there may have been times when you wished you had additional skills and knowledge.

The psychiatric nursing rotation will greatly increase your insight into the experiences of others with mental health alterations. Exploring mental health and mental illness may even help you to increase insight into yourself. You will learn essential information about psychiatric disorders and hopefully have the opportunity to develop new skills for dealing with a variety of behaviors associated with them. The rest of this chapter is devoted to psychiatric nursing—what psychiatric nurses do, their scope of practice, and the challenges and evolving roles for the future healthcare environment.

What Is Psychiatric-Mental Health Nursing?

Psychiatric-mental health nursing is the nursing specialty that is dedicated to promoting mental health through the assessment, diagnosis, and treatment of behavioral problems, mental disorders, and comorbid conditions across the life span (American Nurses Association [ANA] et al., 2014). Psychiatric-mental health nurses work with people throughout their life span: children, adolescents, adults, and older adults.

Psychiatric-mental health nurses assist people who are in crisis or who are experiencing life problems, as well as those with long-term mental illness. These nurses work with patients with dual diagnoses (e.g., a mental disorder and a comorbid substance disorder), homeless persons and families, forensic patients (i.e., people in jail), and individuals who have survived abusive situations. Psychiatric-mental health nurses work with individuals, couples, families, and groups in every nursing setting. They work with patients in hospitals, in their homes, in halfway houses, in shelters, in clinics, in storefronts, on the street—virtually everywhere.

The *Psychiatric-Mental Health Nursing: Scope and Standards of Practice* defines the specific activities of the psychiatric-mental health nurse. This publication—jointly written in 2014 by the American Nurses Association (ANA), the American Psychiatric Nurses Association (APNA), and the International Society of Psychiatric-Mental Health Nurses (ISPN)—defines the focus of **psychiatric-mental health nursing** as "promoting mental health through the assessment, diagnosis, and treatment of human responses to mental health problems and psychiatric disorders" (p. 14).

The psychiatric-mental health nurse uses the same nursing process you have already learned to assess and diagnose patients' illnesses, identify outcomes, and plan, implement, and evaluate nursing care. Box 1.3 describes **phenomena of concern**—human experiences and responses—for psychiatric-mental health nurses.

Classification of Nursing Diagnoses

While the *DSM-5* is used to diagnose a psychiatric disorder, a well-defined nursing diagnosis provides the framework for identifying appropriate nursing interventions for dealing with the patient's reaction to the disorder. To provide the most appropriate and scientifically sound care, the psychiatric-mental health nurse uses standardized classification systems developed by professional nursing groups. These systems provide standardized diagnoses, many of which are related to psychosocial/psychiatric nursing care. The diagnoses provide a common language to aid in the selection of nursing interventions and ultimately lead to outcome achievement. The *International Classification for Nursing Practice (ICNP),* developed by the

International Council of Nurses (ICN, n.d.), provides standardized nursing diagnoses that are used to guide care in this textbook.

Psychiatric-Mental Health Nurse Education Levels

Psychiatric-mental health nurses are registered nurses educated in nursing and licensed to practice in their individual states. Psychiatric nurses are qualified to practice at two levels, basic and advanced, depending on educational preparation.

BOX 1.3 Phenomena of Concern for Psychiatric-Mental Health Nurses

Phenomena of concern for psychiatric-mental health nurses include:

- Promotion of optimal mental and physical health and well-being
- Prevention of mental and behavioral distress and illness
- Promotion of social inclusion of mentally and behaviorally fragile individuals
- Co-occurring mental health and substance use disorders
- Co-occurring mental health and physical disorders
- Alterations in thinking, perceiving, communicating, and functioning related to psychological and physiological distress
- Psychological and physiological distress resulting from physical, interpersonal, and/or environmental trauma or neglect
- Psychogenesis and individual vulnerability
- Complex clinical presentations confounded by poverty and poor, inconsistent, or toxic environmental factors
- Alterations in self-concept related to loss of physical organs and/or limbs, psychic trauma, developmental conflicts, or injury
- Individual, family, or group isolation and difficulty with interpersonal relations
- Self-harm and self-destructive behaviors, including mutilation and suicide
- Violent behavior, including physical abuse, sexual abuse, and bullying
- Low health literacy rates contributing to treatment nonadherence

From American Psychiatric Nurses Association, International Society of Psychiatric-Mental Health Nurses, & American Nurses Association. (2014). *Psychiatric-mental health nursing: Scope and standards of practice* (2nd ed.). Silver Spring, MD: NursesBooks.org.

Table 1.2 describes basic and advanced psychiatric nursing interventions.

Basic Level

Basic level registered nurses are professionals who have completed a nursing program, passed the state licensure examination, and are qualified to work in most any general or specialty area. The **psychiatric-mental health registered nurse (PMH-RN)** is a nursing graduate who possesses a diploma, an associate degree, or a baccalaureate degree and chooses to work in the specialty of psychiatric-mental health nursing. At the basic level, nurses work in various supervised settings and perform multiple roles, such as staff nurse, case manager, home care nurse, and so on.

After 2 years of full-time work as a registered nurse, 2000 clinical hours in a psychiatric setting, and 30 hours of continuing education in psychiatric nursing, a baccalaureate-prepared nurse may take a certification examination administered by the American Nurses Credentialing Center (the credentialing arm of the ANA) to demonstrate clinical competence in psychiatric-mental health nursing. After passing the examination, a board-certified credential is added to the RN title, resulting in RN-BC. Certification gives nurses a sense of mastery and accomplishment, identifies them as competent clinicians, and satisfies a requirement for reimbursement by employers in some states.

Advanced Practice

One of the first advanced practice nursing roles in the United States was the psychiatric clinical nurse specialist (CNS) in the 1950s. These expert nurses were originally trained to provide individual therapy and group therapy in state psychiatric hospitals and to provide training for other staff. Eventually they, along with psychiatric nurse practitioners (NPs) who were introduced in the mid-1960s, gained diagnostic privileges, prescriptive authority, and the ability to provide psychotherapy.

Currently, the **psychiatric-mental health advanced practice registered nurse (PMH-APRN)** is a licensed registered

TABLE 1.2 Basic Level and Advanced Practice Psychiatric-Mental Health Nursing Interventions

Basic Level Intervention	Description
Coordination of care	Coordinates implementation of the nursing care plan and documents coordination of care
Health teaching and health maintenance	Individualized anticipatory guidance to prevent or reduce mental illness or enhance mental health (e.g., community screenings, parenting classes, stress management)
Milieu therapy	Provides, structures, and maintains a safe and therapeutic environment in collaboration with patients, families, and other healthcare clinicians
Pharmacological, biological, and integrative therapies	Applies current knowledge to assessing patient's response to medication, provides medication teaching, and communicates observations to other members of the healthcare team
Advanced Practice Intervention	**Description**
All of the Above Plus:	
Medication prescription and treatment	Prescription of psychotropic medications with appropriate use of diagnostic tests; hospital admitting privileges
Psychotherapy	Individual, couple, group, or family therapy using evidence-based therapeutic frameworks and the nurse-patient relationship
Consultation	Sharing of clinical expertise with nurses or those in other disciplines to enhance their treatment of patients or address systems issues

Data from American Psychiatric Nurses Association, International Society of Psychiatric-Mental Health Nurses, & American Nurses Association. (2014). *Psychiatric-mental health nursing: Scope and standards of practice*. Silver Spring, MD: NurseBooks.org.

nurse with a Master of Science in Nursing (MSN) or Doctor of Nursing Practice (DNP) in psychiatric nursing. This DNP is not to be confused with a doctoral degree (PhD) in nursing, which is a research degree, whereas the DNP is a practice doctorate. The PMH-APRN functions with various levels of autonomy depending on the state and is eligible for specialty privileges. Some advanced practice nurses continue their education to the PhD level.

Unlike other specialty areas, there is no significant difference between a psychiatric NP and a CNS as long as the CNS has achieved prescriptive authority. Certification is required and is obtained through the American Nurses Credentialing Center. Only one examination—the Psychiatric-Mental Health Nurse Practitioner—Board Certified (PMHNP-BC)—is currently available. Three other examinations have been discontinued:

- Adult Psychiatric-Mental Health Nurse Practitioner—Board Certified (PMHNP-BC)
- Adult Psychiatric-Mental Health Clinical Nurse Specialist—Board Certified (PMHCNS-BC)
- Child/Adolescent Psychiatric-Mental Health Clinical Nurse Specialist—Board Certified (PMHCNS-BC)

Although these examinations are no longer given, you will still find many nurses who practice in these roles. Their credentials will continue to be renewed if professional development and practice hour requirements are met.

TRENDS AFFECTING THE FUTURE OF PSYCHIATRIC-MENTAL HEALTH NURSING

Significant trends will affect the future of psychiatric nursing in the United States. These trends include educational challenges, a shortage of mental health professionals, an aging population, increasing cultural diversity, and technological opportunities.

Educational Challenges

As with other specialty areas in a hospital setting, psychiatric nurses are caring for more acutely ill patients. In the 1980s, it was common for patients who were depressed and suicidal to have insurance coverage for approximately 2 weeks. Currently, patients are lucky to be covered for 3 days, if they are covered at all. This means that nurses need to be more skilled and be prepared to discharge patients for whom the benefit of their care will not always be evident.

Providing educational experiences for nursing students is challenging as a result of this level of acute care and also due to the declining inpatient populations. Clinical rotations in general medical centers are becoming more difficult to obtain. Faculty are fortunate to secure rotations in state psychiatric hospitals, veterans administration facilities, and community settings.

Community psychiatric settings also provide students with valuable experience, but the logistics of placing and supervising students in multiple sites has required creativity on the part of nursing educators. Some schools have established integrated rotations that theoretically allow students to work outside the psychiatric setting with patients who have psychiatric disorders. For example, a student may provide care for a person with major depressive disorder on an orthopedic floor. Some faculty are concerned that without serious commitment, this type of specialty integration may water down a previously rich clinical experience.

A Demand for Mental Health Professionals

The growth of the psychiatric workforce has not been keeping pace with demand. As previously stated, in 2019, nearly 52 million US adults older than the age of 18 had a mental illness. This number represents approximately 21% of all adults (SAMHSA, 2020). During the same year, about 16% of adults received treatment. Lack of treatment results in disability, impaired relationships, and, in the case of suicide, mortality.

Nurse-led medical/health homes and clinics are becoming increasingly common. Community nursing centers that can secure funding serve low-income and uninsured people. In this model, psychiatric-mental health nurses work with primary care nurses to provide comprehensive care, usually funded by scarce grants from academic centers. These centers use a nontraditional approach of combining primary care and health promotion interventions. Advanced practice psychiatric nurses have also been extremely successful in setting up private practices where they provide both psychotherapy and medication management.

An Aging Population

As the number of older adults grows, the prevalence of Alzheimer's disease and other neurocognitive disorders requiring skilled nursing care in inpatient settings is likely to increase. Healthier older adults will need more services at home, in retirement communities, or in assisted living facilities. Psychiatric-mental health nurses will be on the forefront in managing care for older adults. For more information on the needs of older adults, refer to Chapters 23, 28, and 31.

Cultural Diversity

Cultural diversity is steadily increasing in the United States. The US Census Bureau (2015) notes that the United States will have a majority minority population by 2044. Psychiatric-mental health nurses will need to increase and maintain their **cultural competence**. Simply put, cultural competence means that nurses adjust *their* practices to meet their patients' cultural beliefs, practices, needs, and preferences. Chapter 5 provides a more thorough discussion of the cultural implications for providing psychiatric nursing care.

Science, Technology, and Electronic Healthcare

Genetic mapping from the Human Genome Project has resulted in a steady stream of research discoveries concerning genetic markers implicated in a variety of psychiatric illnesses. This information could be helpful in identifying at-risk individuals and in targeting medications specific to certain genetic variants and profiles. However, the legal and ethical implications of responsibly using this technology are staggering. For example:

- Would you want to know you were at risk for a psychiatric illness such as bipolar disorder?
- Who should have access to this information—your primary care provider, insurer, future spouse, or a lawyer in a child-custody battle?
- Who will regulate genetic testing centers to protect privacy and prevent 21st-century problems such as identity theft and fraud?

Despite these concerns, the next decade holds great promise in the diagnosis and treatment of psychiatric disorders, and nurses will be central as educators and caregivers. Scientific advances through research and technology are certain to shape psychiatric-mental health nursing practice. MRI research, in addition to comparing healthy people to people diagnosed with mental illness, is now focusing on the development of preclinical profiles of children and adolescents. The hope of this type of research is to identify people at risk for developing mental illness, which allows earlier interventions to try to decrease impairment.

Electronic healthcare services provided from a distance are gaining wide acceptance. In the early days of the internet, consumers were cautioned against the questionable wisdom of seeking advice through an unregulated medium. However, the internet has transformed the way we approach healthcare needs and allows people to be their own advocates.

In 2020, the coronavirus pandemic resulted in fears of contagion from in-person meetings. As with other healthcare providers, many psychiatric professionals adopted telehealth in order to support their patients and also to continue working. The pandemic will likely alter the healthcare landscape for the foreseeable future because some providers have opted to continue telehealth in the future, even when the danger has passed.

Telepsychiatry through audio and visual media is an effective way to reach underserved populations and those who are homebound. Providing healthcare in this private setting also destigmatizes the experience by offering greater privacy. It allows for assessment and diagnosis, medication management, and even group therapy. Psychiatric nurses may become more active in developing websites for mental health education, screening, or support, especially to reach geographically isolated areas. Many health agencies hire nurses to staff help lines or hotlines, and as provision of these cost-effective services increases, so too will the need for bilingual resources.

ADVOCACY AND LEGISLATIVE INVOLVEMENT

Through direct care and indirect action, nurses advocate for the psychiatric patient. As a patient advocate, the nurse reports incidents of abuse or neglect to the appropriate authorities for immediate action. The nurse also upholds patient confidentiality, which has become more of a challenge with the use of electronic medical records. Another form of nursing advocacy is supporting the patient's right to make decisions regarding treatment.

On an indirect level, the nurse may choose to be active in consumer mental health groups (such as NAMI) and state and local mental health associations to support consumers of mental healthcare. The nurse can also be vigilant about reviewing local and national legislation affecting healthcare to identify potential detrimental effects on the mentally ill. Especially during times of fiscal crisis, lawmakers are inclined to decrease or eliminate funding for vulnerable populations who do not have a strong political voice.

The APNA devotes significant energy to monitoring legislative, regulatory, and policy matters affecting psychiatric nursing and mental health. As the 24-hours-a-day, 7-days-a-week caregivers and members of the largest group of healthcare professionals, nurses have the potential to exert tremendous influence on legislation.

However, when commissions and task forces are developed, nurses are not usually the first group to be considered to provide input and expertise for national, state, and local decision makers. In fact, nursing presence is often absent at the policymaking table. Consider the President's New Freedom Commission for Mental Health, which included psychiatrists (medical doctors), psychologists (PhDs), academics, and policymakers—but no nurses. It is difficult to understand how the largest contingent of mental healthcare providers in the United States could be excluded from a group that would determine the future of mental healthcare.

It is in the best interest of consumers of mental healthcare that all members of the collaborative healthcare team, including nurses, be involved in decisions and legislation that will affect their care. Current political issues that need monitoring and support include mental health parity, discriminatory media portrayal, standardized language and practices, and advanced practice issues, such as autonomous practice and government and insurance reimbursement for nursing care.

KEY POINTS TO REMEMBER

- Overall health is not possible without good mental health.
- Mental illness refers to all psychiatric disorders with definable diagnoses that cause significant dysfunction in developmental, biological, or psychological disturbances.
- A mental health and mental illness continuum is a useful representation for demonstrating how functioning may change over time. Mental health and illness are not either/or propositions but are instead endpoints on a continuum.
- Risk factors such as inborn vulnerability, a poor social environment, economic hardship, and poor health policy may increase the risk of adverse mental health outcomes.
- Protective factors such as resiliency improve a person's ability to respond to stress, trauma, and loss.
- The distinction between mental and physical illness is artificial. Mental illness is brain based and is therefore a physical illness.
- Psychiatric disorders are generally the result of nature and nurture. A diathesis-stress model—in which diathesis represents biological predisposition and stress represents environmental stress or trauma—is the most accepted explanation for mental illness.
- The recovery movement has shifted the focus of decision making from a paternalistic system, where compliance is emphasized, to a focus on self-determination and self-direction.
- Government programs and initiatives such as the Decade of the Brain, the Human Genome Project, Brain Research through Advancing Innovative Neurotechnology, and RDoC are expanding our knowledge of the brain and will provide the basis for future treatments.
- Until recently, funding for psychiatric care had not been equal to that of other medical care. Mental health parity refers to equality in funding.

- The study of epidemiology can help to identify high-risk groups and behaviors. In turn, this can lead to a better understanding of the causes of some disorders. Prevalence rates help us to identify the proportion of a population experiencing a specific mental disorder at a given time.
- The *DSM-5* provides criteria for psychiatric disorders and a basis for the development of comprehensive and appropriate interventions.
- A standardized nursing classification system, the *International Classification for Nursing Practice,* is used to form and communicate nursing diagnoses and patient problems.
- As a result of social, cultural, scientific, and political factors, the future holds many challenges and opportunities for psychiatric-mental health nurses.

CRITICAL THINKING

1. Brian, a college sophomore with a grade-point average of 3.4, is brought to the emergency department after a suicide attempt. He has been extremely despondent since the death of his girlfriend 5 months ago, when the car he was driving crashed. His parents are devastated, and they believe that taking one's own life prevents a person from going to heaven.

   Brian has epilepsy and has had more seizures since the auto accident. He says he should be punished for his carelessness and does not care what happens to him. He has stopped going to classes and no longer shows up for his part-time job tutoring young children in reading.
   a. What might be a possible *DSM-5* (medical) diagnosis?
   b. What are some factors that you should assess regarding aspects of Brian's overall health and other influences that can affect mental health?
   c. If an antidepressant medication could help Brian's depression, explain why this alone would not meet his multiple needs. What issues do you think have to be addressed if Brian is to receive a holistic approach to care?
   d. Formulate two potential nursing diagnoses for Brian.
   e. Would Brian's parents' religious beliefs factor into your plan of care? If so, how?
2. In a small group, share experiences you have had with others from unfamiliar cultural, ethnic, religious, or racial backgrounds, and identify two positive learning experiences from these encounters.
3. Would you feel comfortable referring a family member to a mental health clinician? What factors influence your feelings?
4. How could basic and advanced practice psychiatric-mental health nurses work together to provide the highest quality of care?
5. Would you consider joining a professional group or advocacy group that promotes mental health? Why or why not?

CHAPTER REVIEW

1. When providing respectful, appropriate nursing care, how should the nurse identify the patient and his or her observable characteristics?
   a. The manic patient in room 234
   b. The patient in room 234 is a manic
   c. The patient in room 234 is possibly a manic
   d. The patient in room 234 is displaying manic behavior
2. Recognizing the frequency of depression among the American population, the nurse should advocate for which mental health promotion intervention?
   a. Including discussions on depression as part of school health classes
   b. Providing regular depression screening for adolescent and teenage students
   c. Increasing the number of community-based depression hotlines available to the public
   d. Encouraging senior centers to provide information on accessing community depression resources
3. Which statement made by a patient demonstrates a healthy degree of resilience? *Select all that apply.*
   a. "I try to remember not to take other people's bad moods personally."
   b. "I know that if I get really mad, I'll end up being depressed."
   c. "I really feel that sometimes bad things are meant to happen."
   d. "I've learned to calm down before trying to defend my opinions."
   e. "I know that discussing issues with my boss would help me get my point across."
4. Which statement demonstrates the nurse's understanding of the effect of environmental factors on a patient's mental health?
   a. "I'll need to assess how the patient's family views mental illness."
   b. "There is a history of depression in the patient's extended family."
   c. "I'm not familiar with the patient's cultural view on suicide."
   d. "The patient's ability to pay for mental health services needs to be assessed."
5. When considering stigmatization, which statement made by the nurse demonstrates a need for immediate intervention by the nurse manager?
   a. "Depression seems to be a real problem among the teenage population."
   b. "My experience has been that the Irish have a problem with alcohol use."
   c. "Women are at greater risk for developing suicidal thoughts than acting on them."
   d. "We've admitted several military veterans with posttraumatic stress disorder this month."

6. A nursing student new to psychiatric-mental health nursing asks a peer what resources he can use to figure out which symptoms are present in a specific psychiatric disorder. The best answer would be:
   a. National Institute of Mental Illness
   b. National Alliance on Mental Illness
   c. International Classification for Nursing Practice
   d. DSM
7. Epidemiological studies contribute to improvements in care for individuals with mental disorders by:
   a. Providing information about effective nursing techniques.
   b. Identifying risk factors that contribute to the development of a disorder.
   c. Identifying individuals in the general population who will develop a specific disorder.
   d. Identifying which individuals will respond favorably to a specific treatment.
8. Which of the following activities would be considered nursing care and appropriate to be performed by a basic level nurse for a patient suffering from mental illness?
   a. Treating major depressive disorder
   b. Teaching coping skills for a specific family dynamic
   c. Conducting psychotherapy
   d. Prescribing antidepressant medication
9. Which statement about mental illness is true?
   a. Mental illness is a matter of individual nonconformity with societal norms.
   b. Mental illness is present when irrational and illogical behavior occurs.
   c. Mental illness changes with culture, time in history, political systems, and the groups defining it.
   d. Mental illness is evaluated solely by considering individual control over behavior and appraisal of reality.
10. The World Health Organization describes health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Which statement is true in regard to overall health? *Select all that apply.*
    a. There is no relationship between physical and mental health.
    b. Poor physical health can lead to mental distress and disorders.
    c. Poor mental health does not lead to physical illness.
    d. There is a strong relationship between physical health and mental health.
    e. Mental health needs take precedence over physical health needs.

1. **d;** 2. **b;** 3. **a, d, e;** 4. **c;** 5. **b;** 6. **d;** 7. **b, d;** 8. **b;** 9. **c;** 10. **b, d**


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2

Theories and Therapies

Margaret Jordan Halter

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OBJECTIVES

1. Describe the evolution of theories of psychiatric disorders and conditions.
2. Distinguish between dominant theories and associated therapies for psychiatric alterations.
3. Identify how psychiatric theories and therapies are applied in nursing care.
4. Discuss the major components of Peplau's Theory of Interpersonal Relationships.
5. Describe the biological model and its impact on the treatment of psychiatric disorders.
6. Explain the value of developmental theories to patients across the lifespan.

KEY TERMS AND CONCEPTS

automatic thoughts
behavioral therapy
biofeedback
classical conditioning
cognitive behavioral therapy (CBT)
cognitive distortions
conditioning
conscious
countertransference
defense mechanisms
ego
extinction
id
interpersonal therapy
negative reinforcement
operant conditioning
positive reinforcement
preconscious
psychodynamic therapy
punishment
reinforcement
superego
transference
unconscious

Every professional discipline, from math and science to philosophy and psychology, bases its work and beliefs on theories. Most of these theories can be best described as explanations, hypotheses, or hunches rather than testable facts.

The word *theory* may conjure up some dry, conceptual images. You may vaguely recall the physicists' theory of relativity or the geologists' plate tectonics. However, compared with most other theories, psychological theories are filled with familiar concepts and terms. Psychological theories have filtered their way into parts of mainstream thinking and speech. For example, advertisers use the behaviorist trick of linking a seductive woman to the utilitarian minivan. And who has not attributed language mistakes to subconscious motivation? As the fictional king greets his queen: "Good morning, my beheaded…I mean my beloved!" we comprehend the Freudian slip.

Dealing with other people is one of the most universally anxiety-provoking activities, and psychological theories provide plausible explanations for perplexing behavior. Maybe the guy at the front desk who never greets you in the morning does not really despise you. Maybe he has an inferiority complex because his mother was cold and his father was absent from the home.

This chapter will provide you with snapshots of some of the most influential psychological theories. It also gives you an overview of the treatments, or therapies, that the theories inspired. We will also address the contributions that the theories have made to the practice of psychiatric-mental health nursing.

PSYCHOANALYTIC THEORIES AND THERAPIES

Psychoanalytic Theory

Sigmund Freud (1856–1939), an Austrian neurologist, revolutionized thinking about mental health disorders. He introduced a groundbreaking theory of personality structure, levels of awareness, anxiety, the role of defense mechanisms, and the stages of psychosexual development.

Originally, he was searching for biological treatments for psychological disturbances and even experimented with using cocaine as medication. He soon abandoned this physiological approach and focused on psychological treatments. Freud came to believe that the vast majority of mental disorders resulted from unresolved issues that originated in childhood.

Levels of Awareness

Freud believed that there were three levels of psychological awareness in operation. He used the image of an iceberg to describe these levels of awareness (Fig. 2.1).

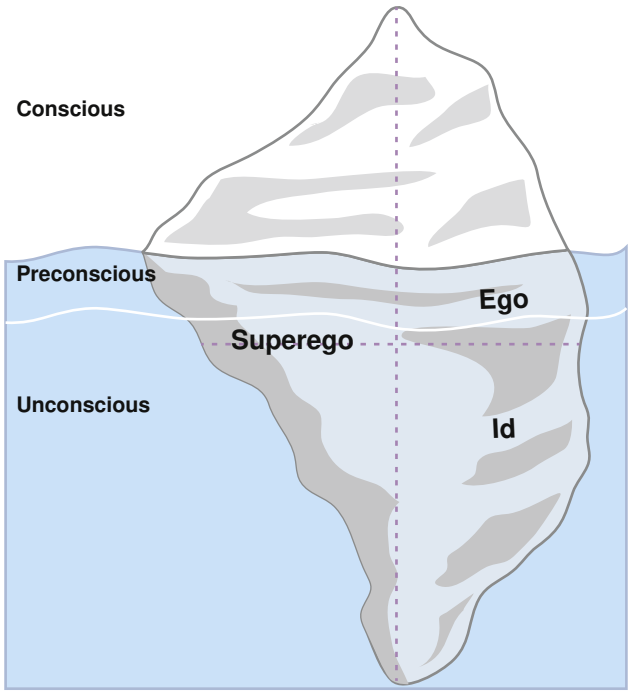


Fig. 2.1 The mind as an iceberg.

Conscious. The **conscious** part of the mind is the tip of the iceberg. It contains all the material a person is aware of at any one time, including perceptions, memories, thoughts, fantasies, and feelings.

Preconscious. Just below the surface of awareness is the **preconscious**, which contains material that can be retrieved rather easily through conscious effort.

Unconscious. The **unconscious** includes all repressed memories, passions, and unacceptable urges lying deep below the surface. Memories and emotions associated with trauma may be stored in the unconscious because the individual finds it too painful to deal with them. The unconscious exerts a powerful yet unseen effect on the conscious thoughts and feelings of the individual. The individual is usually unable to retrieve unconscious material without the assistance of a trained therapist.

Personality Structure

Freud (1960) delineated three major and distinct but interactive systems of the personality: the id, ego, and superego.

Id. At birth, we are all **id**. The id is totally unconscious and impulsive. It is the source of all drives, instincts, reflexes, and needs. The id cannot tolerate frustration and seeks to discharge tension and return to a more comfortable level of energy. The id lacks the ability to problem solve and is illogical. A hungry, screaming infant is the perfect example of id.

Ego. Within the first few years of life as the child begins to interact with others, the **ego** develops. The ego resides in the conscious, preconscious, and unconscious levels of awareness. The problem solver and reality tester, the ego attempts to navigate the outside world. It is able to differentiate subjective experiences, memory images, and objective reality.

The ego follows the reality principle, which says to the id, "You have to delay gratification for right now," then sets a course of action. For example, a hungry man feels tension arising from the id that wants to be fed. His ego allows him not only to think about his hunger but also to plan where he can eat and to seek that destination. This process is known as reality testing because the individual is factoring in reality to implement a plan to decrease tension.

Superego. The **superego**, which develops between the ages of 3 and 5, represents the moral component of personality. The superego resides in the conscious, preconscious, and unconscious levels of awareness. The superego consists of the conscience (all the "should nots" internalized from parents and society) and the ego ideal (all the "shoulds" internalized from parents and society). When behavior falls short of ideal, the superego may induce guilt. Likewise, when behavior is ideal, the superego may allow a sense of pride.

In a mature and well-adjusted individual, the three systems of the personality—the id, ego, and superego—work together as a team under the administrative leadership of the ego. If the id is too powerful, the person will lack control over impulses. If the superego is too powerful, the person may be self-critical and suffer from feelings of inferiority.

Defense Mechanisms and Anxiety

Freud (1969) believed that anxiety is an inevitable part of living. The environment in which we live presents dangers and insecurities, threats and satisfactions. It can produce pain and increase tension or produce pleasure and decrease tension. The ego develops defenses, or **defense mechanisms**, to ward off anxiety by preventing conscious awareness of threatening feelings.

Defense mechanisms share two common features: (1) they all (except suppression) operate on an unconscious level and (2) they deny, falsify, or distort reality to make it less threatening. Although we cannot survive without defense mechanisms, it is possible for our defense mechanisms to distort reality to such a degree that we experience difficulty with healthy adjustment and personal growth. Chapter 15 provides a full list and description of defense mechanisms.

Psychosexual Stages of Development

Freud believed that human development proceeds through five stages from infancy to adulthood. He believed that experiences during the first 5 years determined an individual's lifetime adjustment pattern and personality traits. By the time a child enters school, subsequent growth consists of elaborating on this basic structure. Freud's psychosexual stages of development are in Table 2.1.

Psychoanalytic Therapy

Classical psychoanalysis, as developed by Sigmund Freud, is seldom used nowadays. Freud's premise that early intrapsychic conflict is the cause for all mental illness is no longer widely thought to be valid. Such therapy requires an unrealistically lengthy period of treatment (i.e., three to five times a week for many years), making it prohibitively expensive and uncovered by insurance.

TABLE 2.1 Freud's Psychosexual Stages of Development

Stage (Age)	Source of Satisfaction	Primary Conflict	Tasks	Desired Outcomes	Other Possible Personality Traits
Oral (0–1 year)	Mouth (sucking, biting, chewing)	Weaning	Mastery of gratification of oral needs; beginning of ego development (4–5 months)	Development of trust in the environment, with the realization that needs can be met	Fixation at the oral stage is associated with passivity, gullibility, and dependence; the use of sarcasm; may develop orally focused habits (e.g., smoking, nail-biting).
Anal (1–3 years)	Anal region (expulsion and retention of feces)	Toilet training	Beginning of development of a sense of control over instinctual drives; ability to delay immediate gratification to gain a future goal	Control over impulses	Fixation at the anal stage is associated with anal retentiveness (stinginess, rigid thought patterns, obsessive-compulsive disorder) or anal-expulsive character (messiness, destructiveness, cruelty).
Phallic (oedipal; (3–6 years)	Genitals (masturbation)	Oedipus and Electra	Sexual identity with parent of same sex; beginning of superego development	Identification with parent of the same sex	Fixation may result in reckless, self-assured, and narcissistic person. Lack of resolution may result in inability to love and difficulties with sexual identity.
Latency (6–12 years)	—	—	Growth of ego functions (social, intellectual, mechanical) and the ability to care about and relate to others outside the home (peers of the same sex)	The development of skills needed to cope with the environment	Fixations can result in difficulty identifying with others and in developing social skills, leading to a sense of inadequacy and inferiority.
Genital (12 years and beyond)	Genitals (sexual intercourse)	—	Development of satisfying sexual and emotional relationship; emancipation from parents—planning of life goals and development of a sense of personal identity	The ability to be creative and find pleasure in love and work	Inability to negotiate this stage may derail emotional and financial independence, may impair personal identity and future goals, and disrupt ability to form satisfying intimate relationships.

Data from Gleitman, H. (1981). *Psychology*. New York, NY: W. W. Norton.

The purpose of classical psychoanalytic sessions is to uncover unconscious conflicts. Specific tools include:

- Free association—Analysts actively encourage patients to freely share whatever thoughts or words come to mind to access the unconscious.
- Dream analysis—Patients are encouraged to share the content of dreams, which the therapist analyzes for symbolic meanings (e.g., "I was falling" could be interpreted as the patient feels unable to control situations).
- Defense mechanism recognition—The analyst assists the patient in recognizing and subsequently changing the overuse of maladaptive defense mechanisms, such as denial, projection, and rationalization (see Chapter 15 for a discussion of defense mechanisms).

These tools support the analyst in providing an educated guess, or hypothesis, of the meaning of dominant unconscious conflict. These educated guesses are known as interpretation and are the basis of psychoanalysis.

Two important concepts from classic psychoanalysis are transference and countertransference (Freud, 1969). **Transference** refers to unconscious feelings that the patient has toward a healthcare worker that were originally felt in childhood for a significant other. The patient may say something like, "You remind me exactly of my sister." The transference may be positive (affectionate) or negative (hostile). Psychoanalysis actually encourages transference as a way to understand original relationships. Such exploration helps the patient to better understand certain feelings and behaviors.

Countertransference refers to unconscious feelings that the healthcare worker has toward the patient. For instance, if the patient reminds you of someone you do not like, you may unconsciously react as if the patient were that individual. Strong

negative or positive feelings toward the patient could be a red flag for countertransference. Such responses underscore the importance of maintaining self-awareness and seeking supervisory guidance as therapeutic relationships progress. Chapter 8 talks more about countertransference and the nurse-patient relationship.

Psychodynamic Therapy

Psychodynamic therapy is rooted in traditional psychoanalysis and uses many of the same tools, such as free association and dream analysis, and concepts such as transference and countertransference. However, the therapist has increased involvement and interacts with the patient more freely than in traditional psychoanalysis. The therapy is oriented toward the here and now and makes less of an attempt to reconstruct the developmental origins of conflicts. Psychodynamic therapy tends to last longer than other common therapeutic modalities and may extend for more than 20 sessions, which insurance companies often reject.

The best candidates for psychodynamic therapy are relatively healthy and well-functioning individuals, sometimes referred to as the "worried well" who have a clear area of difficulty and are intelligent, psychologically minded, and well-motivated for change. Patients with psychosis, severe depression, borderline personality disorders, and severe personality disorders are not appropriate candidates for this type of treatment.

At the start of treatment, the patient and therapist agree on what the focus will be and concentrate their work on that focus. Sessions are held weekly, and the total number of sessions to be held is determined at the outset of therapy. There is a rapid, back-and-forth pattern between patient and therapist with both participating actively. The therapist intervenes constantly to keep the therapy on track, either by redirecting the patient's attention or by interpreting deviations from the focus to the patient.

Implications of Freudian Theory for Nursing Practice

Freud's theory offers a comprehensive explanation of complex human processes. It emphasizes the importance of childhood experiences on personality development. Nurses can be sources of support and education for both parents and children to promote a healthy emotional environment.

Freud's theory of the unconscious mind is particularly valuable as a baseline for considering the complexity of human behavior. By considering conscious and unconscious influences, a nurse can identify and begin to think about the root causes of patient suffering. Freud emphasized the importance of individual talk sessions characterized by attentive listening with a focus on underlying themes as an important tool of healing in psychiatric care.

INTERPERSONAL THEORIES AND THERAPIES

Interpersonal Theory

Harry Stack Sullivan (1892–1949), an American-born psychiatrist, developed a model for understanding psychiatric alterations that focused on interpersonal problems. Sullivan (1953) believed that human beings are driven by the need for interaction. Indeed, he viewed loneliness as the most painful human condition. He emphasized the early relationship with the primary parenting figure, or significant other (a term he coined), as crucial for personality development.

According to Sullivan, the purpose of all behavior is to get needs met through interpersonal interactions and to reduce or avoid anxiety. He defined anxiety as any painful feeling or emotion that arises from social insecurity or prevents biological needs from being satisfied. Sullivan coined the term security operations to describe measures the individual uses to reduce anxiety and enhance security. Collectively, all of the security operations an individual uses to defend against anxiety and ensure self-esteem make up the self-system.

Interpersonal Therapy

Interpersonal therapy is an effective short-term therapy. The assumption is that psychiatric disorders are influenced by interpersonal interactions and the social context. The goal of interpersonal therapy is to reduce or eliminate psychiatric symptoms (particularly depression) by improving interpersonal functioning and satisfaction with social relationships.

Interpersonal therapy has proven successful in the treatment of major depressive disorder. Treatment is based on the notion that disturbances in important interpersonal relationships (or a deficit in one's capacity to form those relationships) can play a role in initiating or maintaining clinical depression. In interpersonal therapy, the therapist identifies the nature of the problem to be resolved and then selects strategies consistent with that problem area. Three types of problems in particular respond well to interpersonal therapy (Weissman et al., 2007):

1. **Grief and loss:** Complicated bereavement after death, divorce, or other loss
2. **Interpersonal disputes:** Conflicts with a significant other
3. **Role transition:** Problematic change in life status or social or vocational role

Implications of Interpersonal Theory to Nursing

Hildegard Peplau (1909–1999) (Fig. 2.2), influenced by the work of Sullivan and learning theory, developed the first systematic theoretical framework for psychiatric nursing in her groundbreaking book *Interpersonal Relations in Nursing* (1952). Peplau not only established the foundation for the professional practice of psychiatric nursing but also continued to enrich psychiatric nursing theory and work for the advancement of nursing practice throughout her career.

Peplau was the first nurse to identify psychiatric-mental health nursing both as an essential element of general nursing and as a specialty area that embraces specific governing principles. She was also the first nurse theorist to describe the nurse-patient relationship as the foundation of nursing practice. She also shifted the focus from what nurses do *to* patients to what nurses do *with* patients.

Her theory is mainly concerned with the processes by which the nurse helps patients to make positive changes

Fig. 2.2 Hildegard Peplau.

in their healthcare status and well-being. She believed that illness offered a unique opportunity for experiential learning, personal growth, and improved coping strategies. Psychiatric nurses play a central role in facilitating this growth.

Peplau proposed an approach in which nurses are both participants and observers in therapeutic conversations. She believed it was essential for nurses to observe the behavior not only of the patient but also of themselves. This self-awareness on the part of the nurse is essential in keeping the focus on the patient and in keeping the social and personal needs of the nurse out of the nurse-patient conversation.

Perhaps Peplau's most universal contribution to the everyday practice of psychiatric-mental health nursing is her application of Sullivan's theory of anxiety to nursing practice. She described the effects of different levels of anxiety (mild, moderate, severe, and panic) on perception and learning. She promoted interventions to lower anxiety with the aim of improving patients' abilities to think and function at more satisfactory levels. Chapter 15 presents more on the application of Peplau's theory of anxiety and interventions.

Table 2.2 lists selected nursing theorists and summarizes their major contributions and the impact of these contributions on psychiatric-mental health nursing.

TABLE 2.2 Selected Nursing Theorists, Their Major Contributions, and Their Impact on Psychiatric-Mental Health Nursing

Nursing Theorist	Focus of Theory	Contribution to Psychiatric-Mental Health Nursing
Patricia Benner	Caring as foundation for nursing	Benner encourages nurses to provide caring and comforting interventions. She emphasizes the importance of the nurse-patient relationship and the importance of teaching and coaching the patient and bearing witness to suffering as the patient deals with illness.
Dorothea Orem	Goal of self-care as integral to the practice of nursing	Orem emphasizes the role of the nurse in promoting self-care activities of the patient; this has relevance to the seriously and persistently mentally ill patient.
Sister Callista Roy	Continual need for people to adapt physically, psychologically, and socially	Roy emphasizes the role of nursing in assisting patients to adapt so that they can cope more effectively with changes.
Betty Neuman	Impact of internal and external stressors on the equilibrium of the system	Neuman emphasizes the role of nursing in assisting patients to discover and use stress-reducing strategies.
Joyce Travelbee	Meaning in the nurse-patient relationship and the importance of communication	Travelbee emphasizes the role of nursing in affirming the suffering of the patient and in being able to alleviate that suffering through communication skills used appropriately through the stages of the nurse-patient relationship.

Data from Benner, P., & Wrubel, J. (1989). *The primacy of caring: stress and coping in health and illness*. Menlo Park, CA: Addison-Wesley; Leddy, S., & Pepper, J. M. (1993). *Conceptual bases of professional nursing* (3rd ed., pp. 174–175). Philadelphia, PA: Lippincott; Neuman, B., & Young, R. (1972). A model for teaching total-person approach to patient problems. *Nursing Research, 21*, 264–269; Orem, D. E. (1995). *Nursing: Concepts of practice* (5th ed.). New York, NY: McGraw-Hill; Roy, C., & Andrews, H. A. (1991). *The Roy adaptation model: The definitive statement*. Norwalk, CT: Appleton & Lange; Travelbee, J. (1961). *Intervention in psychiatric nursing*. Philadelphia, PA: F. A. Davis.

BEHAVIORAL THEORIES AND THERAPIES

Behavioral theories developed as a protest to Freud's assumption that a person's destiny was carved in stone at a very early age. Behaviorists have no concern with inner conflicts but argue that personality simply consists of learned behaviors. Consequently, personality becomes synonymous with behavior—if behavior changes, so does the personality. Behaviorists believe that behavior can be influenced through a process referred to as conditioning. **Conditioning** involves pairing a behavior with a condition that reinforces or diminishes the behavior's occurrence.

Classical Conditioning Theory

Ivan Pavlov (1849–1936) was a Russian physiologist. He won a Nobel Prize for his outstanding contributions to the physiology of digestion, which he studied through his well-known experiments with dogs. In incidental observation of the dogs, Pavlov noticed that the dogs were able to anticipate when food would be forthcoming and would begin to salivate even before actually tasting the meat.

Pavlov formalized his observations of behaviors in dogs in a theory of **classical conditioning**. Pavlov (1928) found that when a neutral stimulus (a bell) was repeatedly paired with another stimulus (food that triggered salivation), eventually the sound of the bell alone could elicit salivation in the dogs. A human example of this response is a boy becoming ill after eating spoiled coleslaw at a picnic. Later in life, he feels nauseated whenever he smells coleslaw. It is important to recognize that classical conditioned responses are *involuntary*—not under conscious personal control—and are not spontaneous choices.

Behavioral Theory

John B. Watson (1878–1958) was an American psychologist who rejected the unconscious motivation of psychoanalysis for being too subjective. He developed the school of thought referred to as *behaviorism*, which he believed was more objective or measurable. Watson (1919) contended that personality traits and responses—adaptive and maladaptive—were socially learned through classical conditioning. In a famous (but terrible) experiment, Watson stood behind Little Albert, a 9-month-old who liked animals, and made a loud noise with a hammer every time the infant reached for a white rat. After this experiment, Little Albert became terrified at the sight of white fur or hair, even in the absence of a loud noise. Watson concluded that controlling the environment could mold behavior and that anyone could be trained to be anything, from a beggar man to a merchant.

Operant Conditioning Theory

B. F. Skinner (1904–1990) represented the second wave of behavioral theorists. Skinner (1987) researched **operant conditioning**, a method of learning that occurs through rewards and punishment for *voluntary* behavior. Behavioral responses are elicited through **reinforcement**, which causes a behavior to occur *more* frequently.

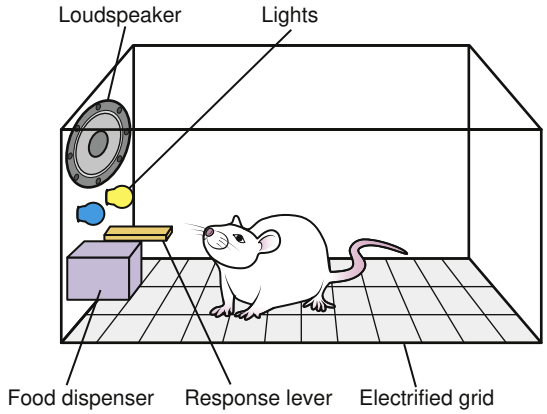


Fig. 2.3 Operant conditioning.

Skinner conducted experiments with laboratory animals in what is now referred to as a Skinner Box. The contents of this box included a lever and an electric grid (Fig. 2.3). To cause behavior *more* frequently, Skinner used two methods. When a hungry rat pressed the lever, it would receive a food pellet. He learned to go straight to the lever for food. This is **positive reinforcement** of the behavior. Another rat was placed in the cage with an electrical charge on the grid under his feet. If he accidentally pressed the lever, the charge would turn off. He learned to go straight to the lever to eliminate the shock. This removal of an objectionable or averse stimulus is **negative reinforcement**.

Other techniques can cause behaviors to occur *less* frequently. One technique is an unpleasant consequence, or **punishment**. Driving too fast may result in a speeding ticket, which—in mature and healthy individuals—decreases the chances that speeding will occur.

Absence of reinforcement, or **extinction**, also decreases behavior by withholding a reward that has become habitual. For example, if a person tells a joke and no one laughs, the person is less apt to tell jokes because his joke-telling behavior is not being reinforced. Teachers use this strategy in the classroom when they ignore acting-out behavior that had previously been rewarded by more attention.

Behavioral Therapy

Behavioral therapy assumes that changes in maladaptive behavior can occur without insight into the underlying cause. This approach works best when it is directed at specific problems and the goals are well defined. Behavioral therapy is effective in treating people with phobias, alcohol use disorder, schizophrenia, and many other conditions. Five types of behavioral therapy are discussed here: modeling, operant conditioning, exposure and response prevention, aversion therapy, and biofeedback.

Modeling

In modeling, the therapist provides a role model for specific identified behaviors, and the patient learns through imitation. The therapist may do the modeling, provide another person to model the behaviors, or present a video for the purpose. Bandura, Blanchard, and Ritter (1969) were able

to help people reduce their phobias about nonpoisonous snakes. They did this by having them first view closeups of filmed encounters between people and snakes that resulted in successful outcomes. Afterward, they viewed live encounters between people and snakes that also had successful outcomes.

In a similar fashion, some behavior therapists use role playing in the consulting room. They demonstrate patterns of behavior that might prove more effective than those usually engaged in and then have the patients practice these new behaviors. For example, a student who does not know how to ask a professor for an extension on a term paper would watch the therapist portray a potentially effective way of making the request. The clinician would then help the student to practice the new skill in a similar role-playing situation.

Operant Conditioning

Operant conditioning is the basis for behavior modification and uses positive reinforcement to increase desired behaviors. For example, when desired goals are achieved or behaviors are performed, patients might be rewarded with tokens. These tokens can be exchanged for food, small luxuries, or privileges. This reward system is known as a *token economy*.

Operant conditioning has been useful in improving the verbal behaviors of children who are mute, autistic, and developmentally disabled. In patients with severe and persistent mental illness, behavior modification has helped to increase levels of self-care, social behavior, group participation, and more. You may find this a useful technique as you proceed through your clinical rotations.

A familiar case in point of positive reinforcement is the mother who takes her preschooler along to the grocery store, and the child starts acting out, demanding candy, nagging, crying, and yelling. Here are examples of three ways the child's behavior can be reinforced:

Action	Result
1. The mother gives the child the candy.	The child continues to use this behavior. This is positive reinforcement of negative behavior.
2. The mother scolds the child.	Acting out may continue, because the child gets what he really wants—attention. This positively rewards negative behavior.
3. The mother ignores the acting out but gives attention to the child when he is acting appropriately.	The child gets a positive reward for appropriate behavior.

Exposure Therapy

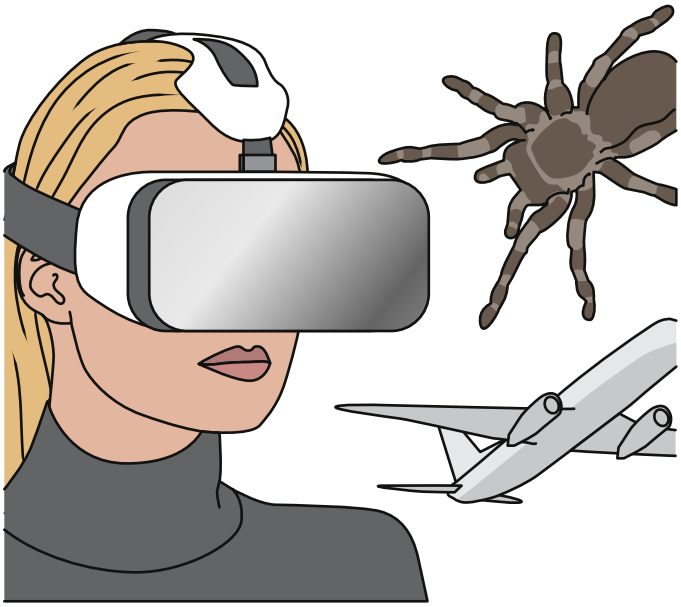
Exposure therapy is used for people who experience anxiety due to fears, phobias, or traumatic memories. To manage or eliminate this anxiety, they avoid anything that reminds them of the feared object, activities, or situation. This avoidance may help in the short term, but in the long term, it can make the fear more powerful by leading to obsessive thinking.

In exposure therapy, patients are encouraged to face their fears and emotionally process them in a safe environment. The goal of this therapy is the elimination, or extinction, of these responses. Exposure therapy is used for phobias, panic disorder, social anxiety disorder, obsessive-compulsive disorder, posttraumatic stress disorder, and generalized anxiety disorder.

There are several variations of exposure therapy. They include:

- Imaginal exposure: In this type of therapy, patients are encouraged to imagine and confront the fear or situation. For example, a person with arachnophobia (fear of spiders) is asked to recall responses to spiders and describe associated thoughts and feelings.
- In vivo exposure: Patients actually confront their fears in a real-world setting. For example, a patient with fear of flying may go to an airport and begin by simply watching planes take off and then discuss his or her feeling.
- Virtual reality exposure: This therapy is a combination of imaginal and in vivo exposure. A patient with a fear of elevators may use virtual reality goggles and audio that provides the sights and sounds of elevators (Fig. 2.4). Gradually the patient can explore approaching and then entering the virtual elevator in safety.

Exposure can be paced in different ways depending upon the patient and the problem. Graded exposure moves in a hierarchy from least feared to most. Systematic desensitization is similar to exposure and response prevention, but incorporates



Virtual reality exposure: This therapy is a combination of imaginal and in vivo exposure. A patient with a fear of elevators may use virtual reality goggles and audio that provides the sights and sounds of elevators. Gradually the patient can explore approaching and then entering the virtual elevator in safety.

Fig. 2.4 Virtual reality exposure. (Courtesy of Fenichel, 2000.)

the incremental exposure of graded exposure along with relaxation techniques such as slow, deep breathing. Flooding, the most extreme method, relies upon confronting the most feared object, situation, or event and then managing and processing it.

Aversion Therapy

Aversion therapy is used to treat conditions and behaviors such as alcohol use disorder, paraphilic disorders, shoplifting, aggressive behavior, and self-mutilation. Aversion therapy is pairing a target behavior with a negative stimulus, to extinguish undesirable behavior. This treatment may be used when other less drastic measures have failed to produce the desired effects.

A simple example of aversion therapy is applying bitter substances on the fingernails of nail biters or the thumbs of thumb suckers. Other examples of aversive stimuli are chemicals that induce nausea and vomiting, unpleasant odors, unpleasant verbal stimuli (e.g., descriptions of disturbing scenes), costs or fines in a token economy, and denial of positive reinforcement (e.g., isolation).

Aversion therapy is somewhat controversial, partly due to a scarcity of research support. A dramatic use of aversive measures focused on sexual preferences. Before the American Psychiatric Association eliminated homosexuality as a disorder, gay individuals were subjected to forms of aversion therapy to alter their sexual preferences. One treatment consisted of a slide projector connected to a shock generator. When neutral slides were displayed, nothing happened. However, when a slide portrayed "deviant" sexual behavior, a shock was administered.

While initiating any aversive protocol, the therapist, treatment team, or society *must* answer the following questions:

- Is this therapy in the best interest of the patient?
- Does its use violate the patient's rights?
- Is it in the best interest of society?

If the therapist believes aversion therapy is the most appropriate treatment, ongoing supervision, support, and evaluation of those administering it must occur.

Biofeedback

Biofeedback is another form of behavioral therapy and is successfully used nowadays, especially for controlling the body's physiological response to stress and anxiety. This feedback helps people to make changes, such as relaxing certain muscles to reduce or eliminate pain. Clinicians have used technology to monitor brain waves, respirations, heart rate, muscle contraction, perspiration, and body temperature.

Technology has expanded and allowed individuals access to sophisticated wearables such as smart watches, bands, garments, and patches with embedded sensors. Small portable devices and mobile applications record and provide users with a variety of feedback on physical responses and performance. An example of a US Food and Drug Administration (FDA)-approved biofeedback device is RESPeRATE, for lowering blood pressure by promoting slow, deep breathing. A computerized control unit, a breathing sensor, and a set of earbuds coach individuals to pace breathing and prolong exhalation.

Chapter 10 discusses biofeedback in further detail.

Implications of Behavioral Theory to Nursing

Behavior and health are inextricably linked. Consider the toll that such behaviors as smoking, overeating, alcohol and substance use problems, and inactivity take on the body and mind. A behavioral model provides a concrete method for modifying or replacing undesirable behaviors. An example of a nurse teaching a behavioral technique is smoking cessation by modifying routines to reduce smoking cues, such as avoiding bars.

Nurses may work in units based on behavioral principles, particularly with children and adolescents. *Token economies* represent extensions of Skinner's thoughts on learning. In a token economy, patients' positive behaviors are reinforced with tokens. These tokens may be small plastic disks, checkmarks, or coins with no real value that can be used in exchange for materials (e.g., candy, gum, books) or services (e.g., phone calls, time off the unit, recognition).

COGNITIVE THEORIES AND THERAPIES

While behaviorists focused on increasing, decreasing, or eliminating measurable behaviors, they did not focus on the thoughts, or cognitions, that were involved in these behaviors. Rather than thinking of people as passive recipients of environmental conditioning, cognitive theorists proposed that there is a dynamic interplay between individuals and the environment. These theorists believe that thoughts come before feelings and actions, and thoughts about the world and our place in it are based on our own unique perspectives, which may or may not be based on reality. This section presents two of the most influential theorists and their therapies.

Rational-Emotive Therapy

Albert Ellis (1913–2007) developed rational-emotive therapy in 1955. The aim of rational-emotive therapy is to remove core irrational beliefs by helping people to recognize thoughts that are not accurate, sensible, or useful. These thoughts tend to take the form of *shoulds* (e.g., "I should always be polite."), *oughts* (e.g., "I ought to consistently win my tennis games."), and musts (e.g., "I must be thin."). Ellis described negative thinking as a simple A-B-C process. *A* stands for the activating event, *B* stands for beliefs about the event, and *C* stands for emotional consequence as a result of the event.

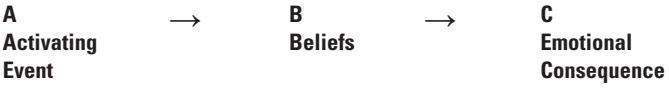


Fig. 2.5 Aaron Beck and Albert Ellis. (Courtesy of Fenichel, 2000.)

Perception influences all thoughts, which, in turn, influence our behaviors. It often boils down to the simple notion of perceiving the glass as half full or half empty. For example, imagine you have just received an invitation to a birthday party (activating event). You think, "I hate parties. Now I have to hang out with people who don't like me instead of watching my favorite television shows. They probably just invited me to get a gift" (beliefs). You will probably be miserable (emotional consequence) if you go. On the other hand, you may think, "I love parties! This will be a great chance to meet new people, and it will be fun to shop for the perfect gift" (beliefs). You could have a delightful time (emotional consequence).

Although Ellis (Fig. 2.5) recognized the role of past experiences on current beliefs, the focus of rational-emotive therapy is on present attitudes, painful feelings, and dysfunctional behaviors. If our beliefs are negative and self-deprecating, we are more susceptible to depression and anxiety. Ellis noted that, although we cannot change the past, we can change the way we are now. He was pragmatic in his approach to mental illness and colorful in his therapeutic advice. "It's too [darn] bad you panic, but you don't die from it! Get them over the panic about panic, you may find the panic disappears" (Ellis, 2000).

Cognitive Behavioral Therapy

Aaron T. Beck (see Fig. 2.5) was originally trained in psychoanalysis. He noticed that people with depression thought differently than people who were not depressed. They had stereotypical patterns of negative and self-critical thinking that seemed to distort their ability to think and process information. To challenge these negative patterns, he developed **cognitive behavioral therapy (CBT)**, which is based on both cognitive psychology and behavioral theory.

Beck's method (Beck et al., 1979), the basis for CBT, is an active, directive, time-limited, structured approach. This evidence-based therapy is used to treat a variety of psychiatric disorders, such as depression, anxiety, phobias, and pain. It is based on the underlying theoretical principle that feelings and behaviors are largely determined by the way people think about the world and their place in it (Beck, 1967). Their cognitions (verbal or pictorial events in their streams of consciousness) are based on attitudes or assumptions developed from previous experiences. These cognitions may be fairly accurate or distorted.

According to Beck, people have *schemas*, or unique assumptions about themselves, others, and the world in general. For example, if a man has the schema, "The only person I can trust is myself," he will have expectations that everyone else has questionable motives, is dishonest, and will eventually hurt him. Other negative schemas include incompetence, abandonment, evilness, and vulnerability. People are typically not aware of such cognitive biases.

Rapid, unthinking responses based on schemas are known as **automatic thoughts**. These responses are particularly intense and frequent in psychiatric disorders such as depression and anxiety. Often automatic thoughts, or **cognitive distortions**, are irrational and lead to false assumptions and misinterpretations. For example, if a woman interprets all experiences in terms of whether she is competent and adequate, thinking may be dominated by the cognitive distortion, "Unless I do everything perfectly, I'm a failure." Consequently, the person reacts to situations in terms of adequacy, even when these situations are unrelated to whether she is personally competent. Table 2.3 describes common cognitive distortions.

Therapeutic techniques are designed to identify, reality test, and correct distorted conceptualizations and the dysfunctional beliefs underlying them. Patients are taught to challenge their own negative thinking and substitute it with positive, rational thoughts. They learn to recognize when thinking is based on distortions and misconceptions.

Homework assignments play an important role in CBT. A particularly useful technique is the use of a columned thought record. In this record, the precipitating event or situation is identified along with the accompanying negative feeling or emotion. The automatic thought is listed next. Challenges to the automatic thought through other potential interpretations are identified in the last column. The following is an application of these CBT concepts:

Event	Feeling	Automatic Thought	Other Possible Interpretations
While at a party, Cory asked me, "How is it going?" a few days after I was discharged from the hospital.	Anxious	Cory thinks I am crazy. I must really look bad for him to be concerned.	He really cares about me. He noticed that I look better than before I went into the hospital and wants to know if I feel better too.

TABLE 2.3 Common Cognitive Distortions

Distortion	Definition	Example
All-or-nothing thinking	Thinking in black and white, reducing complex outcomes into absolutes	Although Lindsey earned the second highest score in the state's cheerleading competition, she consistently referred to herself as "a loser."
Overgeneralization	Using a bad outcome (or a few bad outcomes) as evidence that nothing will ever go right again	Andrew had a minor traffic accident. He is reluctant to drive and says, "I shouldn't be allowed on the road."
Labeling	A form of generalization in which a characteristic or event becomes definitive and results in an overly harsh label for self or others	"Because I failed the advanced statistics exam, I am a failure. I might as well give up. I may as well quit and look for an easier major."
Mental filter	Focusing on a negative detail or bad event and allowing it to taint everything else	Anne's boss evaluated her work as exemplary and gave her a few suggestions for improvement. She obsessed about the suggestions and ignored the rest.
Disqualifying the positive	Maintaining a negative view by rejecting information that supports a positive view as being irrelevant, inaccurate, or accidental	"I've just been offered the job I thought I always wanted. There must have been no other applicants."
Jumping to conclusions	Making a negative interpretation despite the fact that there is little or no supporting evidence	"My fiancé, Juan, didn't call me for 3 hours, which just proves he doesn't love me anymore."
a. Mind-reading	Inferring negative thoughts, responses, and motives of others	Isabel is giving a presentation and a man in the audience is sleeping. She panics, "I must be boring."
b. Fortune-telling error	Anticipating that things will turn out badly as an established fact	"I'll ask her out, but I know she won't have a good time."
Magnification or minimization	Exaggerating the importance of something (e.g., a personal failure or the success of others) or reducing the importance of something (e.g., a personal success or the failure of others)	"I'm alone on a Saturday night because no one likes me. When other people are alone, it's because they want to be."
a. Catastrophizing	Catastrophizing is an extreme form of magnification in which the very worst is assumed to be a probable outcome	"If I don't make a good impression on the boss at the company picnic, she will fire me."
Emotional reasoning	Drawing a conclusion based on an emotional state	"I'm nervous about the exam. I must not be prepared. If I were, I wouldn't be afraid."
"Should" and "must" statements	Rigid self-directives that presume an unrealistic amount of control over external events	Renee believes that a patient with diabetes has high blood sugar today because she's not a very good nurse and that her patients should always get better.
Personalization	Assuming responsibility for an external event or situation that was likely outside personal control	"I'm sorry your party wasn't more fun. It's probably because I was there."

Modified from Burns, D. D. (1989). *The feeling good handbook*. New York, NY: William Morrow.

Table 2.4 compares and contrasts psychodynamic, interpersonal, cognitive behavioral, and behavioral therapies.

Trauma-Focused Cognitive Behavioral Therapy

A relatively new treatment approach, trauma-focused cognitive behavioral therapy (TF-CBT), was developed in the 1990s to address sexual abuse trauma in children. It was subsequently expanded to address the needs of individuals who are impacted by any severe trauma and abuse. Although patients are usually children, TF-CBT incorporates principles of family therapy and includes caregivers. This type of therapy tends to be short term and lasts from 12 to 16 sessions.

Traumatized children and adolescents often develop intense fear regarding memories of the trauma. This fear results in avoiding reminders and talking about what happened. Because they do not want to talk about the trauma, they become more isolated, numb, and anxious. TF-CBT combines trauma-sensitive interventions with CBT. It helps children and adolescents to identify feelings and how to manage them and to examine negative thoughts and replace them with more positive thoughts. Patients are supported in a nurturing environment as they develop a trauma narrative and gradually reduce the impact that the trauma once had.

Dialectical Behavioral Therapy

Psychologist Marsha Linehan (1993) developed dialectical behavioral therapy (DBT), a specific type of cognitive behavioral therapy. A dialectic is an integration of opposites—dialectical strategies help the patient (and the therapist) to give up extreme positions. This model was developed for individuals with intractable behavioral disorders involving emotional dysregulation. Linehan and colleagues (1991) found significant improvements for chronically suicidal and self-injuring women with borderline personality disorder. This emotionally

TABLE 2.4 Comparison of Psychoanalytic, Interpersonal, Cognitive Behavioral, and Behavioral Therapies

Aspects of Therapy	Psychodynamic Therapy	Interpersonal Therapy	Cognitive Behavioral Therapy	Behavioral Therapy
Treatment focus	Unresolved past relationships and core conflicts	Current interpersonal relationships and social supports	Thoughts and cognitions	Learned maladaptive behavior
Therapist role	Significant other Transference object	Problem solver	Active, directive, challenging	Active, directive teacher
Primary disorders treated	Anxiety Depression Personality disorders	Depression	Depression Anxiety/panic Eating disorders	Posttraumatic stress disorder Obsessive-compulsive disorder Panic disorder
Length of therapy	20+ sessions	Short term (12–20 sessions)	Short term (5–20 sessions)	Varies, typically fewer than 10 sessions
Technique	Therapeutic alliance Free association Understanding transference Challenging defense mechanisms	Facilitate new patterns of communication and expectations for relationships	Evaluating thoughts and behaviors Modifying dysfunctional thoughts and behaviors	Relaxation Thought stopping Self-reassurance Seeking social support

Data from Dewan, M. J., Steenbarger, B. N., & Greenberg, R. P. (2014). Brief psychotherapies. In R. E. Hales, S. C. Yudofsky, & L. W. Roberts (Eds.), *Textbook of psychiatry* (6th ed., pp. 1037–1064). Arlington, VA: American Psychiatric Publishing.

vulnerable and reactive population had been largely viewed as untreatable.

DBT is a long-term therapy (1 to 1.5 years) that uses strategies from CBT and other skills to enhance emotional regulation. They include (Behavioral Tech, n.d.):

- Mindfulness: Being aware and present in the moment.
- Distress tolerance: Tolerating pain in challenging situation, rather than frantically trying to transform the pain.
- Interpersonal effectiveness: Asking for what you want and saying no in the context of self-respect and effective relationships with others.
- Emotional regulation: Choosing and changing emotions that are problematic.

DBT is also an effective treatment for other disorders and symptoms. They include depression, suicidal thoughts, hopelessness, anger, substance use, and dissociation (Lenz et al., 2016).

Implications of Cognitive Theories for Nursing

Recognizing the interplay between events, negative thinking, and negative responses can be beneficial from both a patient-care standpoint and a personal one. As a supportive therapeutic measure, helping the patient identify negative thought patterns is a worthwhile intervention. Workbooks are available to aid in the process of identifying cognitive distortions.

The cognitive approach can also help nurses to understand their own responses to a variety of difficult situations. One example might be the anxiety that some students feel regarding the psychiatric nursing clinical rotation. Students may overgeneralize—"All psychiatric patients are dangerous"—or personalize—"My patient doesn't seem to be better. I'm probably not doing him any good"—the situation. The key to effectively using this approach in clinical situations is to challenge the negative thoughts that are not based on facts and then replace them with more realistic appraisals.

HUMANISTIC THEORIES

In the 1950s, humanistic theories arose as a protest against both the behavioral and psychoanalytic schools, which were thought to be pessimistic, deterministic, and dehumanizing. Humanistic theories focus on human potential and free will to choose life patterns supportive of personal growth. Humanistic frameworks emphasize a person's capacity for self-actualization. This approach focuses on understanding the subjective experience of the patient's perspective. Although there are a number of humanistic theorists, in this text we will explore Abraham Maslow and his theory.

Theory of Human Motivation

Abraham Maslow (1908–1970) is considered the father of humanistic psychology. He criticized other therapies for focusing too intently on humanity's frailties and not enough on its strengths. Maslow contended that the focus of psychology must go beyond experiences of hate, pain, misery, guilt, and conflict to include love, compassion, happiness, exhilaration, and well-being.

Hierarchy of Needs

Maslow believed that human beings are motivated by unmet needs. Maslow (1968) focused on human need fulfillment, which he categorized into six incremental stages, beginning with physiological survival needs and ending with self-transcendent needs (Fig. 2.6). The hierarchy of needs is conceptualized as a pyramid with the strongest, most fundamental needs placed on the lower levels. The higher levels—the more distinctly human needs—occupy the top sections of the pyramid. When lower-level needs are met, higher needs are able to emerge.

- **Physiological needs:** The most basic needs are the physiological drives—needing food, oxygen, water, sleep, sex, and a constant body temperature. If all needs were deprived, this level would take priority over the rest.

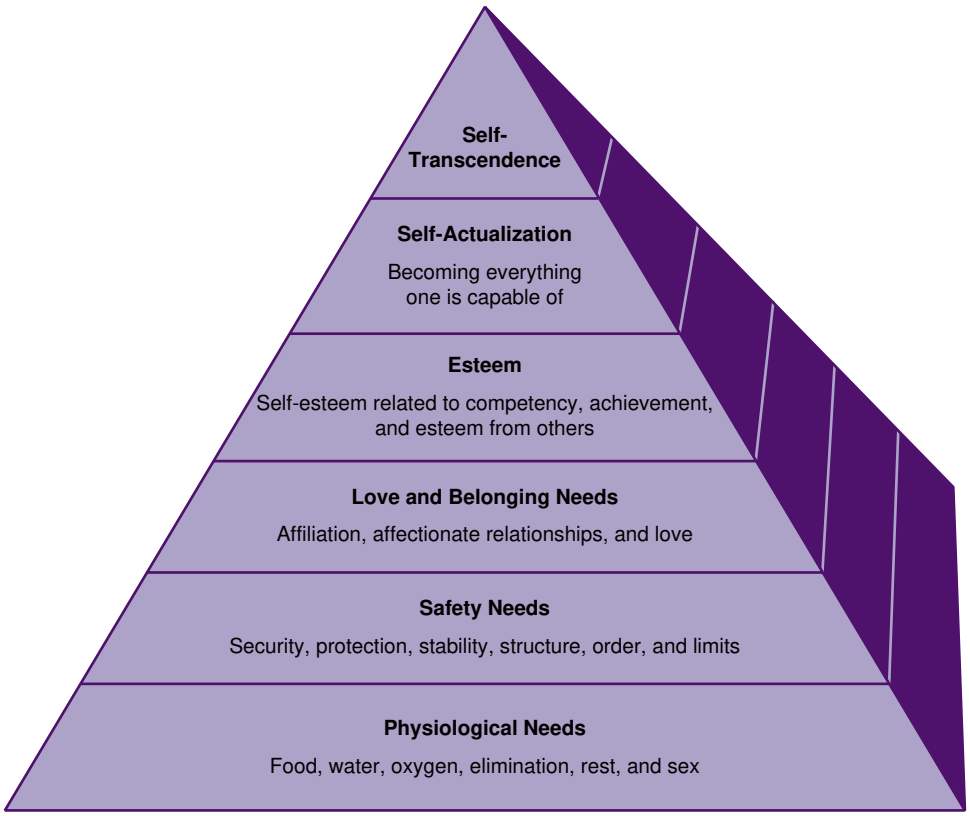


Fig. 2.6 Maslow's hierarchy of needs. (Adapted from Maslow, A. H. (1972). *The farther reaches of human nature*. New York, NY: Viking.)

- **Safety needs:** Once physiological needs are met, safety needs emerge. They include security; protection; freedom from fear, anxiety, and chaos; and the need for law, order, and limits. Adults in a stable society usually feel safe, but they may feel threatened by debt, job insecurity, or lack of insurance. It is during times of crisis, such as war, disasters, assaults, and social breakdown, when safety needs take precedence. Children, who are more vulnerable and dependent, respond far more readily and intensely to safety threats.
- **Belonging and love needs:** People have a need for intimate relationships, love, affection, and belonging and will seek to overcome feelings of loneliness and alienation. Maslow stresses the importance of having a family and a home and being part of identifiable groups.
- **Esteem needs:** People need to have a high self-regard and have it reflected to them from others. If self-esteem needs are met, they feel confident, valued, and valuable. When self-esteem is compromised, they feel inferior, worthless, and helpless.
- **Self-actualization:** Human beings are preset to strive to be everything they are capable of becoming. Maslow said, "What a man *can* be, he *must* be." What people are capable of becoming is highly individual—an artist must paint, a writer must write, and a healer must heal. The drive to satisfy this need is felt as a sort of restlessness, a sense that something is missing. It is up to each person to choose a path that will bring about inner peace and fulfillment.

Although Maslow's early work included only five levels of needs, he later took into account two additional factors: (1) cognitive needs (the desire to know and understand) and (2) aesthetic needs (Maslow, 1970). He describes the acquisition of knowledge (our first priority) and the need to understand (our second priority) as being hardwired and essential. The aesthetic need for beauty and symmetry is universal.

You may be interested to know that Maslow (1970) developed his theory by investigating people who he believed were self-actualized. Among these people were historical figures such as Abraham Lincoln, Thomas Jefferson, Harriet Tubman, Walt Whitman, Ludwig van Beethoven, William James, and Franklin D. Roosevelt. Other people he investigated were living at the time of his studies. They include Albert Einstein, Eleanor Roosevelt, and Albert Schweitzer. Box 2.1 identifies basic personality characteristics that distinguish self-actualizing people.

Implications of Motivation Theory for Nursing

The value of Maslow's model in nursing practice is twofold. First, an emphasis on human potential and the patient's strengths is key to successful nurse-patient relationships. Second, the model helps to establish what is most important in the sequencing of nursing actions. For example, to collect any but the most essential information when a patient is struggling with drug withdrawal may be dangerous. Following Maslow's model as a way of prioritizing actions, the nurse meets the patient's physiological need for stable vital

BOX 2.1 Some Characteristics of Self-Actualized Persons

- Accurate perception of reality. Not defensive in their perceptions of the world.
- Acceptance of themselves, others, and nature.
- Spontaneity, simplicity, and naturalness. Self-actualized individuals do not live programmed lives.
- Problem-centered rather than self-centered orientation. Possibly the most important characteristic. Possibly the most important characteristic is a sense of a mission to which they dedicate their lives.
- Pleasure in being alone and in ability to reflect on events.
- Active social interest.
- People who are self-actualized don't take life for granted.
- Mystical or peak experiences. A peak experience is a moment of intense ecstasy, similar to a religious or mystical experience, during which the self is transcended.
- Self-actualized people may become so involved in what they are doing that they lose all sense of time and awareness of self *(flow experience).*
- Lighthearted sense of humor that indicates "we're in it together" and lacks sarcasm or hostility.
- Fairness and respect for people of different races, ethnicities, religions, and political views.
- Creativity, especially in managing their lives.
- Resistance to conformity (enculturation). Self-actualization results in autonomous, independent, and self-sufficient individuals.

Adapted from Maslow, A. H. (1970). *Motivation and personality*. New York, NY: Harper & Row.

signs and pain relief before collecting general information for a nursing database.

BIOLOGICAL THEORIES AND THERAPIES

Biological Model

A biological model, or medical model, of mental illness assumes that abnormal behavior is the result of a physical problem. It focuses on neurological, chemical, biological, and genetic issues. Adherents of this dominant model seek to understand how the body and brain interact to create emotions, memories, and perceptual experiences. The biological model locates the illness or disease in the body—usually in the limbic system of the brain and the synapse receptor sites of the central nervous system—and targets the site of the illness using physical interventions such as drugs, diet, or surgery.

The recognition that psychiatric illnesses are as physical in origin as diabetes and coronary artery disease serves to decrease the stigma surrounding them. Just as someone with diabetes or heart disease cannot be held responsible for being ill, patients with schizophrenia or bipolar disorder are no more to blame.

Biological Therapies

Pharmacotherapy

In 1950, a French drug firm synthesized chlorpromazine—a powerful antipsychotic medication—and psychiatry experienced a revolution. The advent of pharmacotherapy to treat psychiatric disorders presented a strong alternative to psychological approaches for mental illness. The dramatic experience of observing patients freed from the bondage of psychosis and mania by powerful drugs such as chlorpromazine and lithium left witnesses convinced of the critical role of the brain in psychiatric illness.

Since the discovery of chlorpromazine, which was later sold under the trade name Thorazine, many other medications have proven effective in controlling psychosis, mania, depression, and anxiety. These medications greatly reduce the need for hospitalization and dramatically improve the lives of people suffering from serious psychiatric difficulties. Psychotropic medications exert differential effects on a variety of neurotransmitters and help to restore brain function.

Brain Stimulation Therapies

In addition to psychotherapy and pharmacotherapy as treatment for mental illness are the brain stimulation therapies. The oldest of these therapies is electroconvulsive therapy (ECT). All of these methods involve focused electrical stimulation of the brain. In addition to treating psychiatric disorders, they also treat other neurological disorders, such as Parkinson's disease, epilepsy, and pain conditions. Table 2.5 provides a summary of FDA–approved brain stimulation treatments and their use.

Implications of the Biological Model for Nursing

Historically, psychiatric-mental health nurses have attended to the physical needs of psychiatric patients. Nurses administer medications and monitor sleep, activity, nutrition, hydration, elimination, and other functions. Nurses are responsible for preparing patients for somatic therapies such as ECT. Physical needs and physical care in psychiatric nursing are provided as part of a holistic approach to healthcare. Basic nursing strategies such as focusing on the qualities of a therapeutic relationship, understanding the patient's perspective, and communicating in a way that facilitates the patient's recovery take place alongside physical care.

TABLE 2.5 Summary of Approved Brain Stimulation Treatments and Their Use

Treatment	Convulsive?	Site	Disorders
Electroconvulsive therapy (ECT)	Yes	Cortical	Depression, mania, catatonia
Repetitive transcranial magnetic stimulation (rTMS)	No	Cortical	Depression
Vagus nerve stimulation (VNS)	No	Cervical cranial nerve	Depression
Deep brain stimulation (DBS)	No	Subcortical	Depression, obsessive-compulsive disorder

DEVELOPMENTAL THEORIES

Cognitive Development

Jean Piaget (1896–1980) was a Swiss psychologist and researcher. While working at a boys' school run by Alfred Binet, developer of the Binet Intelligence Test, Piaget helped to score these tests. He became fascinated by the fact that young children consistently gave wrong answers on intelligence tests, wrong answers that revealed a discernible pattern of cognitive processing that was different from that of older children and adults. He concluded that cognitive development was a dynamic progression from primitive awareness and simple reflexes to complex thought and responses. Our mental representations of the world, or schemata, depend on the cognitive stage we have reached.

- *Sensorimotor stage (birth to 2 years).* Begins with basic reflexes and culminates with purposeful movement, spatial abilities, and hand-eye coordination. Physical interaction with the environment provides the child with a basic understanding of the world. By approximately 9 months, object permanence is achieved, and the child can conceptualize objects that are no longer visible. This explains the delight of the game of peek-a-boo as an emerging skill, as the child begins to anticipate the face hidden behind the hands.
- *Preoperational stage (2 to 7 years).* Operations is a term used to describe thinking about objects. Children are not yet able to think abstractly or generalize qualities in the absence of specific objects, but rather think in a concrete fashion. Egocentric thinking is demonstrated through a tendency to expect others to view the world as they do. They are also unable to conserve mass, volume, or number. An example of this inability is thinking that a tall, thin glass holds more liquid than a short, wide glass.
- *Concrete operational stage (7 to 11 years).* Logical thought appears and abstract problem solving is possible. The child is able to see a situation from another's point of view and can take into account a variety of solutions to a problem. Conservation is possible. For example, two small cups hold an amount of liquid equal to a tall glass. They are able to classify based on discrete characteristics, order objects in a pattern, and understand the concept of reversibility.
- *Formal operational stage (11 years to adulthood).* Conceptual reasoning commences at approximately the same time as does puberty. At this stage, the child's basic abilities to think abstractly and problem solve mirror those of an adult.

Theory of Psychosocial Development

Erik Erikson (1902–1994), an American psychoanalyst, began as a follower of Freud. Erikson (1963) came to believe that Freudian theory was restrictive and negative in its approach. He also stressed that more than the limited mother-child-father triangle influences an individual's development. He emphasized the role of culture and society on personality development. According to Erikson, personality was not set in stone at age 5, as Freud suggested, but continued to evolve throughout the life span.

Erikson described development as occurring in eight predetermined and consecutive life stages (psychosocial crises), each of which results in a positive or negative outcome. The successful or unsuccessful completion of each stage will affect the individual's progression to the next (Table 2.6). For example, Erikson's crisis of industry versus inferiority occurs from the ages of 7 to 12. During this stage, the child's task is to gain a sense of personal abilities and competence and to expand relationships beyond the immediate family to include peers. The attainment of this task (industry) brings with it the virtue of confidence. The child who fails to navigate this stage successfully is unable to master age-appropriate tasks, cannot make a connection with peers, and will feel like a failure (inferiority).

Theory of Object Relations

The theory of object relations was developed by interpersonal theorists who emphasize past relationships in influencing a person's sense of self as well as the nature and quality of relationships in the present. The term *object* refers to another person, particularly a significant person.

Margaret Mahler (1895–1985) was a Hungarian-born child psychologist who worked with emotionally disturbed children. She developed a framework for studying how an infant transitions from complete self-absorption, with an inability to separate from its mother, to a physically and psychologically differentiated toddler. Mahler and colleagues (1975) believed that psychological problems were largely the result of a disruption of this separation.

During the first 3 years, the significant other (e.g., the mother) provides a secure base of support that promotes enough confidence for the child to separate. This is achieved by a balance of holding (emotionally and physically) a child enough for the child to feel safe while encouraging independence and natural exploration.

Problems may arise in this process. If a toddler leaves his or her mother on the park bench and wanders off to the sandbox, the child should be encouraged with smiles and reassurance, "Go on honey. It's safe to go away a little." Then the mother needs to be reliably present when the toddler returns, thereby rewarding his or her efforts. Mahler notes that raising healthy children does not require that parents never make mistakes and that "good enough parenting" will promote successful separation-individuation.

Theories of Moral Development

Stages of Moral Development

Lawrence Kohlberg (1927–1987) was an American psychologist whose work reflected and expanded on Piaget's by applying his theory to moral development, a development that coincided with cognitive development (Crain, 1985). While visiting Israel, Kohlberg became convinced that children living in a kibbutz had advanced moral development, and he believed that the atmosphere of trust, respect, and self-governance nurtured this development. In the United States, he created schools or "just communities" that were grounded on these concepts. Based on interviews with youths, Kohlberg developed a theory of how people progressively develop a sense of morality (Kohlberg & Turiel, 1971).

His theory provides a framework for understanding the progression from black-and-white thinking about right and wrong

TABLE 2.6 Erikson's Eight Stages of Development

Approximate Age	Developmental Task	Psychosocial Crisis	Successful Resolution of Crisis	Unsuccessful Resolution of Crisis
Infancy (0–1½ years)	Forming attachment to mother, which lays foundations for later trust in others	Trust versus mistrust	Sound basis for relating to other people; trust in people; faith and hope about environment and future "If he's late in picking me up, there must be a good reason."	General difficulties relating to people effectively; suspicion; trust-fear conflict; fear of future "I can't trust anyone; no one has ever been there when I needed them."
Early childhood (1½–3 years)	Gaining some basic control of self and environment (e.g., toilet training, exploration)	Autonomy versus shame and doubt	Sense of self-control and adequacy; will power "I'm sure that with the proper diet and exercise program, I can achieve my target weight."	Independence/fear conflict; severe feelings of self-doubt "I could never lose the weight they want me to, so why even try?"
Preschool (3–6 years)	Becoming purposeful and directive	Initiative versus guilt	Ability to initiate one's own activities; sense of purpose "I like to help mommy set the table for dinner."	Aggression/fear conflict; sense of inadequacy or guilt "I wanted the candy, so I took it."
School age (6–12 years)	Developing social, physical, and school skills	Industry versus inferiority	Competence; ability to work "I'm getting really good at swimming since I've been taking lessons."	Sense of inferiority; difficulty learning and working "I can't read as well as the others in my class; I'm just dumb."
Adolescence (12–20 years)	Making transition from childhood to adulthood; developing sense of identity	Identity versus role confusion	Sense of personal identity; fidelity "I'm going to go to college to be an engineer; I hope to get married before I am 30."	Confusion about who one is; weak sense of self "I belong to the gang because without them, I'm nothing."
Early adulthood (20–35 years)	Establishing intimate bonds of love and friendship	Intimacy versus isolation	Ability to love deeply and commit oneself "My husband has been my best friend for 25 years."	Emotional isolation; egocentricity "There's no one out there for me."
Middle adulthood (35–65 years)	Fulfilling life goals that involve family, career, and society; developing concerns that embrace future generations	Generativity versus self-absorption	Ability to give and to care for others "I'm joining the political action committee to help people get the healthcare they need."	Self-absorption; inability to grow as a person "After I work all day, I just want to watch television and don't want to be around people."
Later years (65 years to death)	Looking back over one's life and accepting its meaning	Integrity versus despair	Sense of integrity and fulfillment; willingness to face death; wisdom "I've led a happy, productive life, and I still have plenty to give."	Dissatisfaction with life; denial of or despair over prospect of death "What a waste my life has been; I'm going to die alone."

Data from Erikson, E. H. (1963). *Childhood and society*. New York, NY: W. W. Norton; and Altrocchi, J. (1980). *Abnormal psychology* (p. 196). New York, NY: Harcourt Brace Jovanovich.

to a complex, variable, and context-dependent decision-making process regarding the rightness or wrongness of action.

Preconventional level

Stage 1: Obedience and punishment. The hallmarks of this stage are a focus on rules and on listening to authority. People at this stage believe that obedience is the method to avoid punishment.

Stage 2: Individualism and exchange. Individuals become aware that not everyone thinks the way that they do and that different people see rules differently. If they or others decide to break the rules, they are risking punishment.

Conventional level

Stage 3: Good interpersonal relationships. Children begin to view rightness or wrongness as related to motivations, personality, or the goodness or badness of the person. In general, people should get along and have similar values.

Stage 4: Maintaining the social order. A "rules are rules" mindset returns. However, the reasoning behind it is not simply to avoid punishment; it is because the person has begun to adopt a broader view of society. Listening to authority maintains the social order; bureaucracies and big government agencies often seem to operate with this tenet.

TABLE 2.7 Gilligan's Stages of Moral Development

Stage	Goal	Action
Preconventional	Goal is individual survival—selfishness	Caring for self
Conventional	Self-sacrifice is goodness—responsibility to others	Caring for others
Postconventional	Principle of nonviolence—do not hurt others or self	Balancing caring for self with caring for others

Postconventional level

Stage 5: Social contract and individual rights. People in stage 5 still believe that the social order is important, but the social order must be *good*. For example, if the social order is corrupt, then rules should be changed and it is a duty to protect the rights of others.

Stage 6: Universal ethical principles. Actions should create justice for everyone involved. We are obliged to break unjust laws.

Ethics of Care Theory

Carol Gilligan (born 1936) is an American psychologist, ethicist, and feminist who inspired the normative ethics of care theory. She worked with Kohlberg as he developed his theory of moral development and later criticized his work for being based on a sample of boys and men. In addition, she believed that he used a scoring method that favored males' methods of reasoning, resulting in lower moral development scores for girls as compared with boys. Based on Gilligan's critique, Kohlberg later revised his scoring methods, which resulted in greater similarity between girls' and boys' scores.

Gilligan (1982) suggests that a morality of care should replace Kohlberg's "justice view" of morality, which maintains that we should do what is right no matter the personal cost or the cost to those we love. Gilligan's care view emphasizes the importance of forming relationships, banding together, and putting the needs of those for whom we care above the needs of strangers. Gilligan asserts that a female approach to ethics has always been in existence but had been trivialized. Like Kohlberg, Gilligan asserts that moral development progresses through three major divisions: preconventional, conventional, and postconventional. These transitions are not dictated by cognitive ability but rather through personal development and changes in a sense of self (Table 2.7).

CONCLUSION

This chapter introduced you to some of the historically significant theories and therapies widely used currently and the theoretical implications for nursing care. Table 2.8 lists additional theorists whose contributions influence psychiatric-mental health nursing.

TABLE 2.8 Additional Theorists Whose Contributions Influence Psychiatric-Mental Health Nursing

Theorist	School of Thought	Major Contributions	Relevance to Psychiatric Mental Health Nursing
Carl Rogers	Humanism	Developed a person-centered model of psychotherapy. Emphasized the concepts of: Congruence—authenticity of the therapist in dealings with the patient. Unconditional acceptance and positive regard—climate in the therapeutic relationship that facilitates change. Empathetic understanding—therapist's ability to apprehend the feelings and experiences of the patient as if these things were happening to the therapist.	Encourages nurses to view each patient as unique. Emphasizes attitudes of unconditional positive regard, empathetic understanding, and genuineness that are essential to the nurse-patient relationship. *Example:* The nurse asks the patient, "What can I do to help you regain control over your anxiety?"
Jean Piaget	Cognitive development	Identified stages of cognitive development, including sensorimotor (0–2 years); preoperational (2–7 years); concrete operational (7–11 years); and formal operational (11 years–adulthood). These describe how cognitive development proceeds from reflex activity to application of logical solutions to all types of problems.	Provides a broad base for cognitive interventions, especially with patients with negative self-views. *Example:* The nurse shows an 8-year-old all the equipment needed to start an IV when discussing the fact that he will need one before surgery.
Lawrence Kohlberg	Moral development	Posited a six-stage theory of moral development.	Provides nurses with a framework for evaluating moral decisions.
Albert Ellis	Existentialism	Developed approach of rational emotive behavioral therapy that is active and cognitively oriented; confrontation used to force patients to assume responsibility for behavior; patients are encouraged to accept themselves as they are and are taught to take risks and try out new behaviors.	Encourages nurses to focus on "here-and-now" issues and to help the patient live fully in the present and look forward to the future. *Example:* The nurse encourages the patient to vacation with her family even though she will be wheelchair-bound until her leg fracture heals.

Continued

TABLE 2.8 Additional Theorists Whose Contributions Influence Psychiatric-Mental Health Nursing—cont'd

Theorist	School of Thought	Major Contributions	Relevance to Psychiatric Mental Health Nursing
Albert Bandura	Social learning theory	Responsible for concepts of modeling and self-efficacy: person's belief or expectation that he or she has the capacity to affect a desired outcome through his or her own efforts.	Includes cognitive functioning with environmental factors, which provides nurses with a comprehensive view of how people learn. *Example:* The nurse helps the teenage patient to identify three negative outcomes of tobacco use.
Viktor Frankl	Existentialism	Developed "logotherapy," a form of support offered to help people find their sense of self-respect. Logotherapy is a future-oriented therapy focused on one's need to find meaning and value in living as one's most important life task.	Focuses nurse beyond mere behaviors to understanding the meaning of these behaviors to the patient's sense of life meaning. *Example:* The nurse listens attentively as the patient describes what it's been like since her daughter died.

Data from Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall; Bernard, M. E., & Wolfe, J. L. (Eds.). (1993). *The RET resource book for practitioners*. New York, NY: Institute for Rational-Emotive Therapy; Ellis, A. (1989). *Inside rational emotive therapy*. San Diego, CA: Academic Press; Frankl, V. (1969). *The will to meaning*. Cleveland, OH: New American Library; Kohlberg, L. (1986). A current statement on some theoretical issues. In S. Modgil & C. Modgil (Eds.), *Lawrence Kohlberg*. Philadelphia, PA: Palmer; Rogers, C. R. (1961). *On becoming a person*. Boston, MA: Houghton Mifflin.

There are literally hundreds of therapies currently in use. The Substance Abuse and Mental Health Services Administration (SAMHSA) maintains an Evidence-Based Practice and Resource Center. New therapies are entered into the database all the time. The registry may be accessed at https://www.samhsa.gov/ebp-resource-center.

You will be introduced to other therapeutic approaches later in the book. Crisis intervention (see Chapter 26) is an approach you will find useful not only in psychiatric-mental health nursing but also in other nursing specialties. This book will also discuss group therapy (see Chapter 34) and family interventions (see Chapter 35), which are appropriate for the basic level practitioner.

KEY POINTS TO REMEMBER

- Freud articulated levels of awareness (unconscious, preconscious, conscious) and demonstrated the influence of our unconscious behavior on everyday life as evidenced by the use of defense mechanisms.
- Freud identified three psychological processes of personality (id, ego, and superego) and described how they operate and develop.
- Freud articulated one of the first modern developmental theories of personality based on five psychosexual stages.
- Various psychoanalytical therapies have been used over the years. Currently, a short-term, time-limited version of psychotherapy is common.
- Harry Stack Sullivan proposed the interpersonal theory of personality development, which focuses on interpersonal processes that can be observed in a social framework.
- Interpersonal therapy seeks to improve interpersonal relationships and improve communication patterns.
- Hildegard Peplau, a nursing theorist, developed an interpersonal theoretical framework that has become the foundation of psychiatric-mental health nursing practice.
- Behavioral theorists argue that changing a behavior changes a personality.
- Pavlov focused on classical conditioning (in which an involuntary reaction is caused by a stimulus), while Skinner experimented with operant conditioning (in which voluntary behavior is learned through reinforcement).
- Common behavioral treatments include modeling, operant conditioning, exposure therapy, aversion therapy, and biofeedback.
- Cognitive theory is based on the belief that thoughts come before feelings and actions. Thoughts may not be a clear representation of reality and may be distorted.
- Cognitive behavioral therapy is the most commonly used, accepted, and empirically validated psychotherapeutic approach. It focuses on identifying, understanding, and changing distorted thought patterns.
- Abraham Maslow, the founder of humanistic psychology, offered the theory of self-actualization and human motivation that is basic to all nursing education. He argued that humans are motivated by unmet needs. Basic needs must be met before higher-level needs.
- A biological model of mental illness and treatment dominates care for psychiatric disorders. Current biological treatments include pharmacotherapy and brain stimulation therapy.

- Erik Erikson expanded on Freud's developmental stages to include middle age through old age. Erikson called his stages psychosocial stages and emphasized the social aspect of personality development.
- Lawrence Kohlberg provides us with a framework to understand the progression of moral development from black-and-white thinking to a complex decision-making process that coincides with intellectual development.
- Carol Gilligan expanded on Kohlberg's moral theory of development to emphasize relationships and tending to the needs of others.

CRITICAL THINKING

1. Consider how the theorists and theories discussed in this chapter have had an effect on your practice of nursing:
   - **a.** How do Freud's concepts of the conscious, preconscious, and unconscious affect your understanding of patients' behaviors?
   - **b.** Do you believe Erikson's psychosocial stages represent a sound basis for identifying disruptions in stages of development in your patients? Support your position with a clinical example.
   - **c.** What are the implications of Sullivan's focus on the importance of interpersonal relationships for your interactions with patients?
   - **d.** Peplau believed that nurses must exercise self-awareness within the nurse-patient relationship. Describe situations in your student experience in which this self-awareness played a vital role in your relationships with patients.
   - **e.** Identify someone you believe to be self-actualized. What characteristics does this person have that support your assessment? How do you make use of Maslow's hierarchy of needs in your nursing practice?
   - **f.** What do you think about the behaviorist point of view that to change behaviors is to change personality?
2. Which of the therapies described in this chapter do you think can be the most helpful to you in your nursing practice? What are your reasons for this choice?

CHAPTER REVIEW

1. A male patient reports to the nurse, "I'm told I have memories of childhood abuse stored in my unconscious mind. I want to work on this." Based on this statement, what information should the nurse provide the patient?
   - **a.** To seek the help of a trained therapist to help uncover and deal with the trauma associated with those memories.
   - **b.** How to use a defense mechanism such as suppression so that the memories will be less threatening.
   - **c.** Psychodynamic therapy will allow the surfacing of those unconscious memories to occur in just a few sessions.
   - **d.** Group sessions are valuable to identify underlying themes of the memories being suppressed.
2. Which question should the nurse ask when assessing for what Sullivan's Interpersonal Theory identifies as the most painful human condition?
   - **a.** "Is self-esteem important to you?"
   - **b.** "Do you think of yourself as being lonely?"
   - **c.** "What do you do to manage your anxiety?"
   - **d.** "Have you ever been diagnosed with depression?"
3. When discussing therapy options, the nurse should provide information about interpersonal therapy to which patient? *Select all that apply.*
   - **a.** The teenager who is the focus of bullying at school
   - **b.** The older woman who has just lost her life partner to cancer
   - **c.** The young adult who has begun demonstrating hoarding tendencies
   - **d.** The adolescent demonstrating aggressive verbal and physical tendencies
   - **e.** The middle-aged adult who recently discovered her partner has been unfaithful
4. When considering the suggestions of Hildegard Peplau, which activity should the nurse regularly engage in to ensure that the patient stays the focus of all therapeutic conversations?
   - **a.** Assessing the patient for unexpressed concerns and fears
   - **b.** Evaluating the possible need for additional training and education
   - **c.** Reflecting on personal behaviors and personal needs
   - **d.** Avoiding power struggles with the manipulative patient
5. Which action reflects therapeutic practices associated with operant conditioning?
   - **a.** Encouraging a parent to read to their children to foster a love for learning
   - **b.** Encouraging a patient to make daily journal entries describing their feelings
   - **c.** Suggesting to a new mother that she spend time cuddling her newborn often during the day
   - **d.** Acknowledging a patient who is often verbally aggressive for complimenting a picture another patient drew
6. A nurse is assessing a patient who graduated at the top of his class but now obsesses about being incompetent in his new job. The nurse recognizes that this patient may benefit from the following type of psychotherapy:
   - **a.** Interpersonal
   - **b.** Operant conditioning
   - **c.** Behavioral
   - **d.** Cognitive behavioral
7. According to Maslow's hierarchy of needs, the most basic needs category for nurses to address is:
   - **a.** Physiological
   - **b.** Safety
   - **c.** Love and belonging
   - **d.** Self-actualization

8. In an outpatient psychiatric clinic, a nurse notices that a newly admitted young male patient smiles when he sees her. One day the young man tells the nurse, "You are pretty like my mother." The nurse recognizes that the male is exhibiting:
   a. Transference
   b. Id expression
   c. Countertransference
   d. A cognitive distortion
9. Linda is terrified of spiders and cannot explain why. Because she lives in a wooded area, she would like to overcome this overwhelming fear. Her nurse practitioner suggests which therapy?
   a. Behavioral
   b. Biofeedback
   c. Aversion
   d. Exposure and response prevention therapy
10. A patient is telling a tearful story. The nurse listens empathically and responds therapeutically with:
   a. "The next time you find yourself in a similar situation, please call me."
   b. "I am sorry this situation made you feel so badly. Would you like some tea?"
   c. "Let's devise a plan on how you will react next time in a similar situation."
   d. "I am sorry that your friend was so thoughtless. You should be treated better."

1. **a;** 2. **b;** 3. **a, b, e;** 4. **c;** 5. **d;** 6. **d;** 7. **a;** 8. **a;** 9. **d;** 10. **c**.

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3

Neurobiology and Pharmacotherapy

Chris Paxos and Jessica B. Emshoff

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OBJECTIVES

1. Discuss the structure and major functions of the brain and how psychotropic medications can alter these functions.
2. Identify how specific brain functions are altered in certain psychiatric disorders (e.g., major depressive disorder, anxiety, schizophrenia).
3. Describe how a neurotransmitter functions as a chemical messenger.
4. Describe how the use of imaging techniques can be helpful for understanding mental illness.
5. Differentiate pharmacodynamics and pharmacokinetics.
6. Identify the main neurotransmitters that are affected by the following psychotropic medications and their subgroups:
   Antianxiety and hypnotic medications
   Antidepressant medications
   Mood stabilizers
   Antipsychotic medications
   Psychostimulants
   Cholinesterase inhibitors
7. Identify cautions you might incorporate into your medication teaching plan with regard to herbal treatments.

KEY TERMS AND CONCEPTS

antagonists
antianxiety (anxiolytic) medications
cholinesterase inhibitors
circadian rhythms
first-generation antipsychotics
hypnotic
limbic system
lithium
monoamine oxidase inhibitors (MAOIs)
mood stabilizers
neurons
neurotransmitters
norepinephrine and serotonin specific antidepressants (NaSSAs)
pharmacodynamics
pharmacogenetics
pharmacokinetics
psychotropic medication
receptors
reuptake
second-generation antipsychotics
selective serotonin reuptake inhibitors (SSRIs)
serotonin norepinephrine reuptake inhibitors (SNRIs)
synapse
therapeutic index
tricyclic antidepressants (TCAs)

Genetics, neurodevelopmental factors, substances, infections, and traumatic experiences can interact and produce a psychiatric disorder. No matter the cause, physical changes in the brain can result in disturbances in the patient's mood and behavior. These physiological alterations are the targets of **psychotropic** (Greek for *psyche,* or mind, + *trepein,* to turn) **medications** used to treat psychiatric disorders.

Despite the availability of psychotropic medications for more than half a century, the actions of some of these medications to improve psychiatric symptoms are poorly understood. Early biological theories associated a single neurotransmitter with a specific disorder: for example, a dopamine theory to explain schizophrenia, or a serotonin theory to explain depression. Experts view these theories as overly simplistic. Other neurotransmitters, hormones, and coregulators play important and complex roles. Recent discoveries have influenced the direction of research and treatment.

Before examining specific medications, this chapter will provide an overview of normal brain function and how these functions operate. Theories of the neurobiological basis of various types of emotional and physiological dysfunctions are presented next. Finally, the chapter reviews the major classifications of medications used to treat psychiatric disorders, explains how they work, and identifies both their beneficial and problematic effects. Additionally, detailed information regarding adverse and toxic effects, nursing implications, and teaching tools are presented in the appropriate clinical chapters (Chapters 11 to 24).

STRUCTURE AND FUNCTION OF THE BRAIN

Functions and Activities of the Brain

Regulating behavior and carrying out mental processes are important responsibilities of the brain, but certainly not the

BOX 3.1 Functions of the Brain

- Monitor changes in the external world
- Monitor the composition of body fluids
- Regulate the contractions of skeletal muscles
- Regulate the internal organs
- Control basic drives: hunger, thirst, sex, aggressive self-protection
- Mediate conscious sensation
- Store and retrieve memories
- Regulate mood (affect) and emotions
- Think and perform intellectual functions
- Regulate sleep cycle
- Produce and interpret language
- Process visual and auditory data

only ones. Box 3.1 summarizes some of the major functions and activities of the brain.

Maintenance of Homeostasis

The brain directs and coordinates the body's response to both internal and external changes. Appropriate responses require a constant surveillance of the environment, interpretation and integration of the incoming information, and control over the appropriate organs of response. The goal of these responses is to maintain homeostasis (an organism's process for maintaining a stable internal environment) and, therefore, to maintain life.

Various sensory organs relay information about the external world to the brain by the peripheral nerves. Stimuli such as light, sound, or touch must ultimately be interpreted as, say, a lamp, doorbell, or a tap on the back. These sensations can be altered, particularly in psychotic disorders such as schizophrenia, where an individual may register sensory information, such as an audible voice, that does not originate in the external world.

To respond to the external world, the brain controls skeletal muscles. This control includes the ability to initiate contraction. It also fine-tunes and coordinates contraction so that a person can, for example, guide the fingers to the correct keys on a piano. Unfortunately, disturbances in movement may result from either psychiatric disorders or psychotropic medications. For example, antipsychotic medications can cause tremor or muscle rigidity.

It is important to remember that the skeletal muscles controlled by the brain include the diaphragm, which is essential for breathing, and the muscles of the throat, tongue, and mouth, which are essential for speech. Therefore, medications that affect brain function can stimulate or depress respiration or lead to slurred speech.

In addition to surveying the outside world, the brain also monitors internal functions. It continuously receives information about blood pressure, body temperature, blood gases, and the chemical composition of body fluids so that it can direct the appropriate responses required to maintain homeostasis. For example, if blood pressure drops, the brain must direct the heart to pump more blood and the smooth muscles of the arterioles to constrict. These compensatory mechanisms allow the body to return blood pressure to its normal level.

Regulation of the Autonomic Nervous System and Hormones

The autonomic nervous system and the endocrine system serve as links between the brain and cardiac muscle, smooth muscle, and glands of which the internal organs are composed (Fig. 3.1). To stimulate the heart, the brain must activate sympathetic nerves that innervate the sinoatrial node and the ventricular myocardium. Activation of parasympathetic nerves innervating the gastrointestinal tract increases gut motility and facilitates digestion.

The homeostatic linkage between the brain and the internal organs explains why psychiatric disturbances, such as anxiety, alter internal function. Anxiety activates the sympathetic nervous system, leading to symptoms such as increased heart rate, shortness of breath, facial blushing, and sweaty palms (Jameson et al., 2018).

The brain also influences internal organs by regulating hormonal secretions of the pituitary gland, which, in turn, regulates other glands. A specific area of the brain, the hypothalamus, secretes hormones called releasing factors. These hormones act on the pituitary gland to stimulate or inhibit the synthesis and release of pituitary hormones. Once in the general circulation, they influence various internal activities.

An example of this linkage is the release of thyroid-releasing hormone by the hypothalamus. This hormone stimulates the anterior pituitary gland to release thyroid-stimulating hormone into the bloodstream. Thyroid-stimulating hormone then binds to the thyroid gland, which stimulates the production of thyroxine (T4) and triiodothyronine (T3). An overactive thyroid, resulting in hyperthyroidism, is associated with symptoms of anxiety. Conversely, an underactive thyroid, or hypothyroidism, is associated with depressive symptoms.

The relationship between the brain, pituitary gland, and adrenal glands is particularly important in normal and abnormal mental function. The steps in this system are:

1. The hypothalamus secretes corticotropin-releasing hormone (CRH).
2. CRH stimulates the pituitary to release adrenocorticotropic hormone.
3. Adrenocorticotropin stimulates the cortex of each adrenal gland (located on top of the kidneys) to secrete the stress hormone, cortisol.

This system is referred to as the hypothalamic-pituitary-adrenal axis, or HPA axis. It is part of the normal response to a variety of mental and physical stressors (Fig. 3.2). All three hormones—CRH, adrenocorticotropin, and cortisol—influence the functions of the nerve cells of the brain. There is considerable evidence that this system influences psychiatric disturbances. For example, elevated cortisol levels are found in patients with major depressive disorder. Elevated cortisol levels suppress the immune response and make patients with depression more vulnerable to infection. Patients with posttraumatic stress disorder (PTSD) appear to have lower than normal circulating cortisol. Lower cortisol levels are associated with more severe PTSD symptoms in particular patients (Stahl, 2013).

Control of Biological Drives and Behavior

To understand the basis of psychiatric disorders, it is helpful to distinguish between the various types of brain activity.

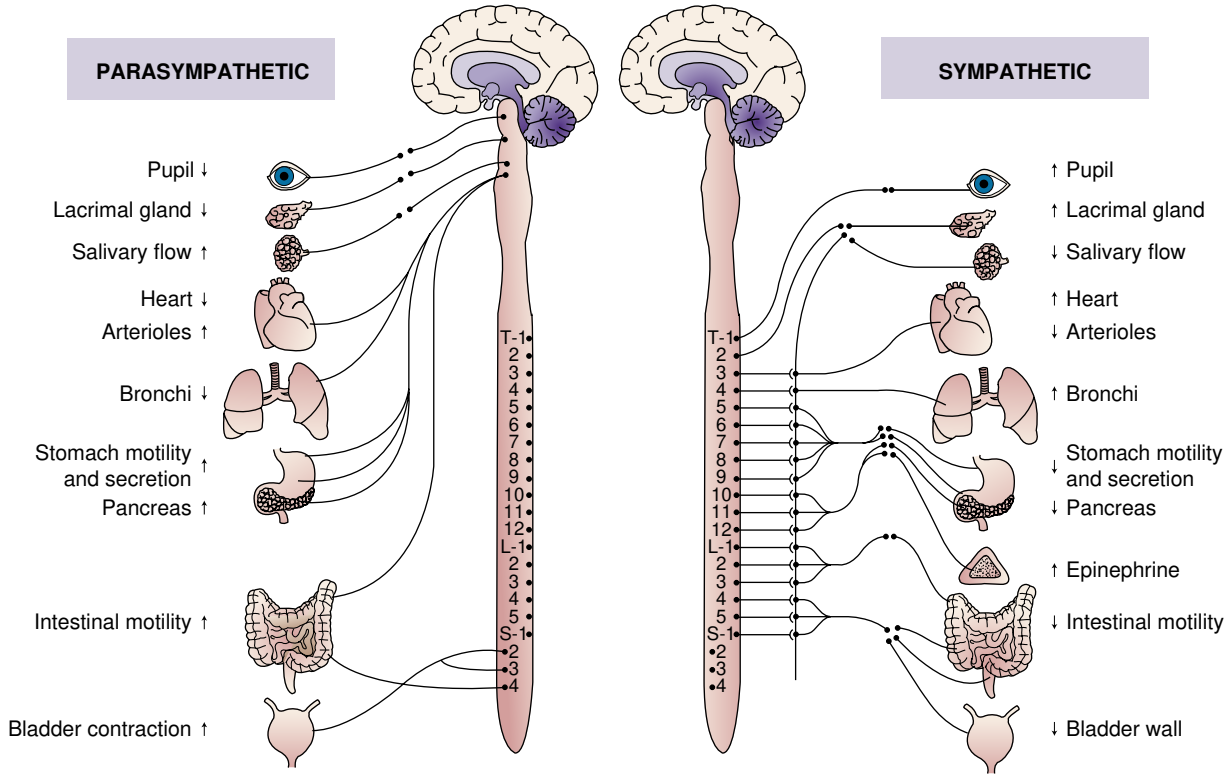


Fig. 3.1 The autonomic nervous system has two divisions: sympathetic and parasympathetic. The sympathetic division is dominant in stress situations, such as fear and anger (described as fight-or-flight). The parasympathetic division conserves and restores energy (described as rest-and-digest).

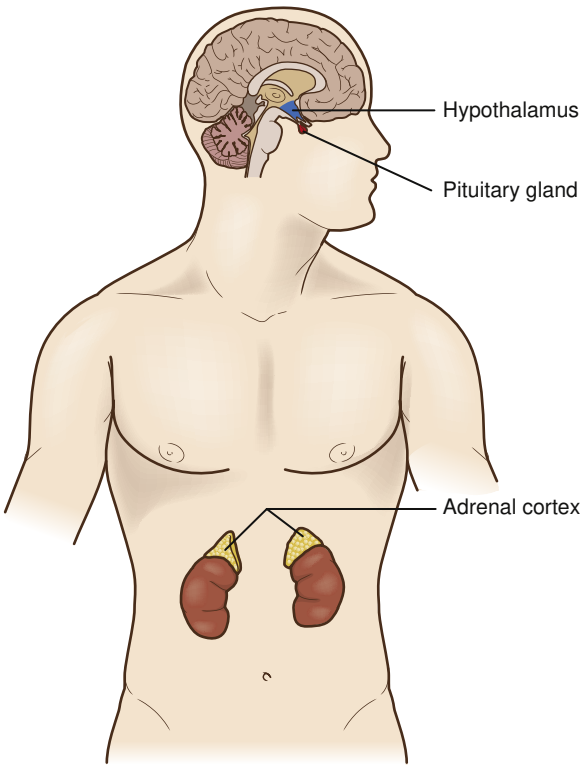


Fig. 3.2 The hypothalamic-pituitary-adrenal axis.

An understanding of these activities shows where to look for disturbed function and what to expect with treatment. The brain is responsible for such basic drives as sex and hunger. Disturbances of these drives (e.g., loss of sexual interest, overeating or undereating) can be an indication of an underlying psychiatric disorder such as depression.

Cycle of sleep and wakefulness. Various regions of the brain regulate and coordinate the entire cycle of sleep and wakefulness, as well as the intensity of alertness while awake. Sleep is essential for both physiological and psychological well-being. Sleep pattern disturbances occur in virtually every psychiatric disorder. Improvement in sleep is often an important marker in determining response and tracking recovery from these illnesses.

Psychotropic medications may interfere with the normal regulation of sleep and alertness. Sedative-hypnotic medications will reduce alertness and can cause drowsiness. These medications require caution while engaging in activities requiring mental alertness, such as driving or operating machinery. One way of minimizing the danger is to take sedating medications at night just before bedtime. Psychostimulants, on the other hand, promote wakefulness and may cause insomnia if taken near bedtime. Therefore, they should be taken early in the day.

Circadian Rhythms

Circadian rhythms are the fluctuation of various physiological and behavioral patterns over a 24-hour cycle. Changes in sleep, body temperature, secretion of hormones such as corticotropin and cortisol, and secretion of neurotransmitters

such as norepinephrine and serotonin are influenced by these rhythms. Both norepinephrine and serotonin are thought to be involved in mood. There is evidence that the circadian rhythm of neurotransmitter secretion is altered in psychiatric disorders, particularly in those that involve mood.

Conscious Mental Activity

All aspects of conscious mental experience and sense of self originate from the activity of the brain. Conscious mental activity can be a basic, meandering stream of consciousness that flows from thoughts of future responsibilities, memories, fantasies, and so on. Conscious mental activity can also be much more complex when it is applied to problem solving or interpretation of the external world. Unfortunately, conscious mental experiences can become distorted in psychiatric disorders. A patient with schizophrenia may have chaotic and incoherent speech and thought patterns (e.g., unconnected phrases and topics) and delusional interpretations of personal interactions such as beliefs about people or events that are not supported by data or reality.

Memory

An extremely important component of mental activity is memory. It is the ability to retain and recall past experiences. From both an anatomical and a physiological perspective, there is a major difference in the processing of short- and long-term memory. Alzheimer's disease provides a stark example. A patient with Alzheimer's disease may have no recall of the events of the previous few minutes but may have vivid recall of events that occurred decades earlier.

Social Skills

An important, and often neglected, aspect of brain functioning involves social skills that make interpersonal relationships possible. In almost all psychiatric disorders, from social anxiety disorder to schizoaffective disorder, difficulties in interpersonal relationships are an important aspect of the disorders. As with sleep, improvements in these relationships help gauge progress toward goals and recovery.

Cellular Composition of the Brain

The brain is composed of approximately 100 billion **neurons**, nerve cells that conduct electrical impulses. Most functions of the brain, from regulation of blood pressure to the conscious sense of self, result from the actions of individual neurons and the interconnections between them. Although neurons come in a great variety of shapes and sizes, all carry out the same three types of physiological actions:

1. Responding to stimuli
2. Conducting electrical impulses
3. Releasing chemicals called neurotransmitters

Neurons have the ability to communicate by conducting an electrical impulse, also called an action potential, from one end of the cell to the other. All cellular membranes are electrically charged due to ions inside and outside the cell. Communication between neurons occurs mainly through sodium (Na^+) and potassium (K^+) ions. In a resting state, there is an unequal distribution of these two ions on either side of the cell membrane. When the neuron is at rest, potassium ions are located inside the membrane and sodium ions (along with some potassium ions) are on the outside. This distribution of ions results in intracellular space that is more negatively charged when compared with the extracellular space.

Stimulation of the nerve cell membrane changes this resting state within milliseconds. First, the stimulus causes sodium gates to open. Sodium ions flow into the neuron and potassium ions flow out. The entry of positively charged ions into the cell actually reverses the electrical potential from a negative one to a positive one. The current at one end of the cell is conducted along the membrane until it reaches the opposite end (Fig. 3.3).

Once an electrical impulse reaches the end of a neuron, a neurotransmitter is released. A **neurotransmitters** is a chemical substance that functions as a neuromessenger. Neurotransmitters are released from the axon terminal of the presynaptic neuron on excitation. The neurotransmitter then crosses the space, or **synapse**, to an adjacent postsynaptic neuron where it attaches to **receptors** on the neuron's surface.

It is this interaction from one neuron to another, by way of a neurotransmitter and receptor, that allows the activity of one neuron to influence the activity of other neurons. The interaction between neurotransmitter and receptor is a major target of the medications used to treat psychiatric disorders. Table 3.1 lists important neurotransmitters and the types of receptors to which they attach. Also listed are the psychiatric disorders associated with an increase or decrease in these neurotransmitters.

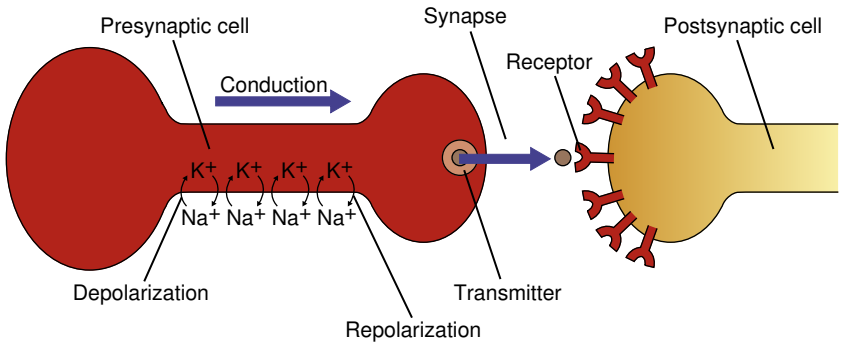


Fig. 3.3 Activities of neurons. Conduction along a neuron involves the inward movement of sodium ions (Na^+) followed by the outward movement of potassium ions (K^+). When the current reaches the end of the cell, the neurotransmitter is released. The neurotransmitter crosses the synapse and attaches to a receptor on the postsynaptic cell. Neurotransmitter attachment to a receptor either stimulates or inhibits the postsynaptic cell.

TABLE 3.1 Neurotransmitters and Receptors

Neurotransmitters	Receptors	Effects/Comments	Association with Mental Health
Monoamines			
Dopamine (DA)	D_1, D_2, D_3, D_4, D_5	Involved in fine motor movement Involved in integration of emotions and thoughts Involved in decision making Stimulates hypothalamus to release hormones	*Decrease:* Parkinson's disease Depression *Increase:* Schizophrenia Mania
Norepinephrine (NE) (noradrenaline)	α_1, α_2, β_1, β_2, β_3	Level in brain affects mood Attention and arousal Stimulates sympathetic branch of autonomic nervous system for "fight or flight" in response to stress	*Decrease:* Depression *Increase:* Mania Anxiety states Schizophrenia
Serotonin (5-HT)	5-HT_1, 5-HT_2, 5-HT_3, 5-HT_4, others	Plays a role in sleep regulation, hunger, mood states, and pain perception Hormonal activity Plays a role in aggression and sexual behavior	*Decrease:* Depression
Histamine (H)	H_1, H_2	Involved in alertness Involved in inflammatory response Stimulates gastric secretion	*Decrease:* Sedation Weight gain
Amino Acids			
γ-aminobutyric acid (GABA)	$GABA_A$, $GABA_B$	Plays a role in inhibition; reduces aggression, excitation, and anxiety May play a role in pain perception Has anticonvulsant and muscle-relaxing properties May impair cognition and psychomotor functioning	*Decrease:* Anxiety Schizophrenia Mania Huntington's disease *Increase:* Reduction of anxiety
Glutamate	NMDA, AMPA	Excitatory AMPA plays a role in learning and memory	*Decrease (NMDA):* Psychosis *Increase (NMDA):* Prolonged increased state can be neurotoxic Neurodegeneration in Alzheimer's disease *Increase (AMPA):* Improvement of cognitive performance in behavioral tasks
Cholinergics			
Acetylcholine (ACh)	Nicotinic ($\alpha_4\beta_2$, others), muscarinic (M_1, M_2, M_3)	Plays a role in learning and memory Stimulates parasympathetic branch of autonomic nervous system for "resting and digesting" actions Affects sexual and aggressive behavior	*Decrease:* Alzheimer's disease Huntington's disease Parkinson's disease *Increase:* Depression
Peptides			
Substance P	NK1	Facilitates the transmission of pain signals along the spinal cord Antagonists of NK1 have shown antidepressant effects	Involved in regulation of pain and possibly mood and anxiety
Hypocretin/Orexin	OX1R, OX2R	Promotes and sustains wakefulness	*Decrease:* Narcolepsy

Continued

TABLE 3.1 Transmitters and Receptors—cont'd

Neurotransmitters	Receptors	Effects/Comments	Association with Mental Health
Neurotensin	NTR_1, NTR_2, NTR_3	Endogenous antipsychotic-like properties	Possibly involved in disorders involving dopamine, such as schizophrenia and Parkinson's disease

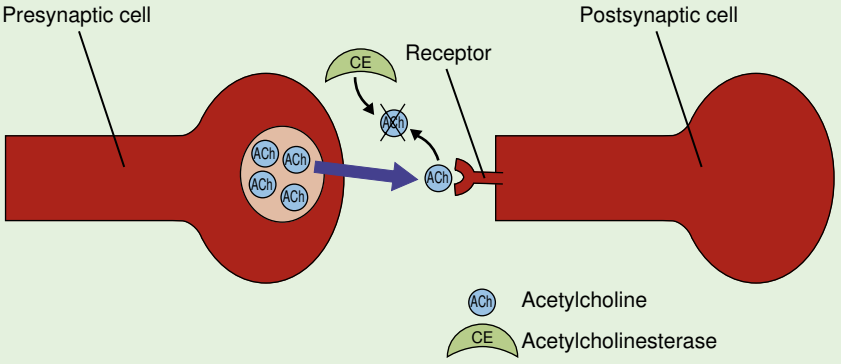
AMPA, α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid; *GABA,* γ-aminobutyric acid; *NMDA, N*-methyl-D-aspartate.

After attaching to a receptor and exerting its influence on the postsynaptic cell, the neurotransmitter separates from the receptor and is destroyed. Box 3.2 describes the process of neurotransmitter destruction. Neurotransmitters can be destroyed in one of two ways. Some enzymes (identified by the suffix -ase) destroy neurotransmitters at the postsynaptic cell. For example, acetylcholine is destroyed by the enzyme acetylcholinesterase (referred to as cholinesterase from here on) at the postsynaptic cell. Other neurotransmitters are taken back into the presynaptic cell from which they were originally released by a process called cellular **reuptake**. These neurotransmitters are either reused or destroyed by intracellular enzymes. For example, monoamine

BOX 3.2 Destruction of Neurotransmitters

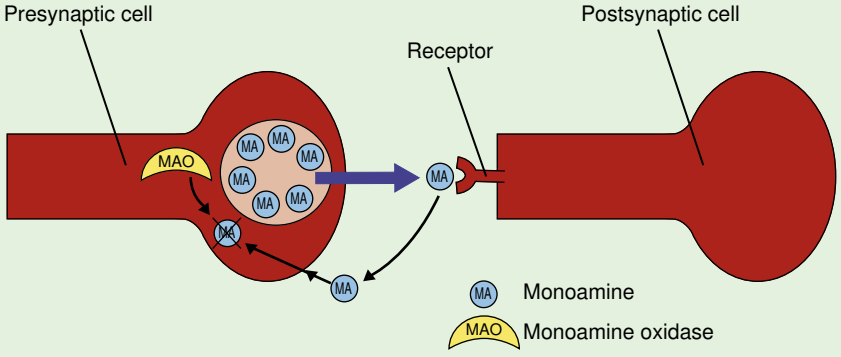
A full explanation of the various ways in which psychotropic medications alter neuronal activity requires a brief review of the manner in which neurotransmitters are destroyed after attaching to the receptors. To avoid continuous and prolonged action on the postsynaptic cell, the neurotransmitter is released shortly after attaching to the postsynaptic receptor. Once released, the neurotransmitter is destroyed in one of two ways.

One way is the immediate inactivation of the neurotransmitter at the postsynaptic membrane. An example of this method of destruction is the action of the enzyme cholinesterase. Cholinesterase is present at the postsynaptic membrane and destroys the neurotransmitter, acetylcholine, shortly after it attaches to nicotinic or muscarinic receptors on the postsynaptic cell.



A second method of neurotransmitter inactivation is more complex. After interacting with the postsynaptic receptor, the neurotransmitter is released and taken back into the presynaptic cell, the cell from which it was released. This process, referred to as the reuptake of neurotransmitter, is a common target for medications. Once inside the presynaptic cell, an enzyme within the cell breaks down the neurotransmitter. The monoamine neurotransmitters norepinephrine, dopamine, and serotonin are all inactivated in this manner by the enzyme monoamine oxidase.

Looking at this second method, what would prevent the enzyme from destroying the neurotransmitter before its release? The answer is that before a neurotransmitter is released, it is stored within a membrane (i.e., vesicle) and is protected. After release and reuptake, the neurotransmitter is either destroyed by the enzyme or reenters the membrane to be stored and eventually used again.



neurotransmitters (e.g., norepinephrine, dopamine, serotonin) are taken back into the cell and either stored or destroyed by the intracellular enzyme, monoamine oxidase (MAO).

Organization of the Brain

Brainstem

The most primitive area of the brain is the brainstem. It connects directly to the spinal cord and is central to the survival of all animals by controlling such functions as heart rate, breathing, digestion, and sleeping.

Ascending pathways in the brainstem, referred to as mesolimbic and mesocortical pathways, seem to play a strong role in modulating the emotional value of sensory material. These pathways project to areas of the cerebrum collectively known as the limbic system. The **limbic system** plays a crucial role in emotional status and psychological function using norepinephrine, serotonin, and dopamine as its neurotransmitters.

The role of these pathways in normal and abnormal mental activity is significant. For example, experts believe that the release of dopamine from the mesolimbic pathway plays a role in psychological reward and substance use disorders. The neurotransmitters released by these neurons are major targets of the medications used to treat psychiatric disorders.

Hypothalamus

In a small area above the brainstem lies the hypothalamus, which plays a vital role in:

- Controlling basic drives, such as hunger, thirst, and sex
- Linking higher activities (e.g., thought and emotion) to the functioning of internal organs
- Processing sensory information that is then sent to the cerebral cortex
- Regulating the sleep and wakefulness cycle and the ability of the cerebrum to carry out conscious mental activity

Cerebellum

Located behind the brainstem where the spinal cord meets the brain, the cerebellum (Fig. 3.4) receives information from the sensory systems, the spinal cord, and other parts of the brain and then regulates voluntary motor movements. It plays a crucial role in coordinating contractions so that movement is accomplished in a smooth and directed manner. It is also involved in balance and the maintenance of equilibrium.

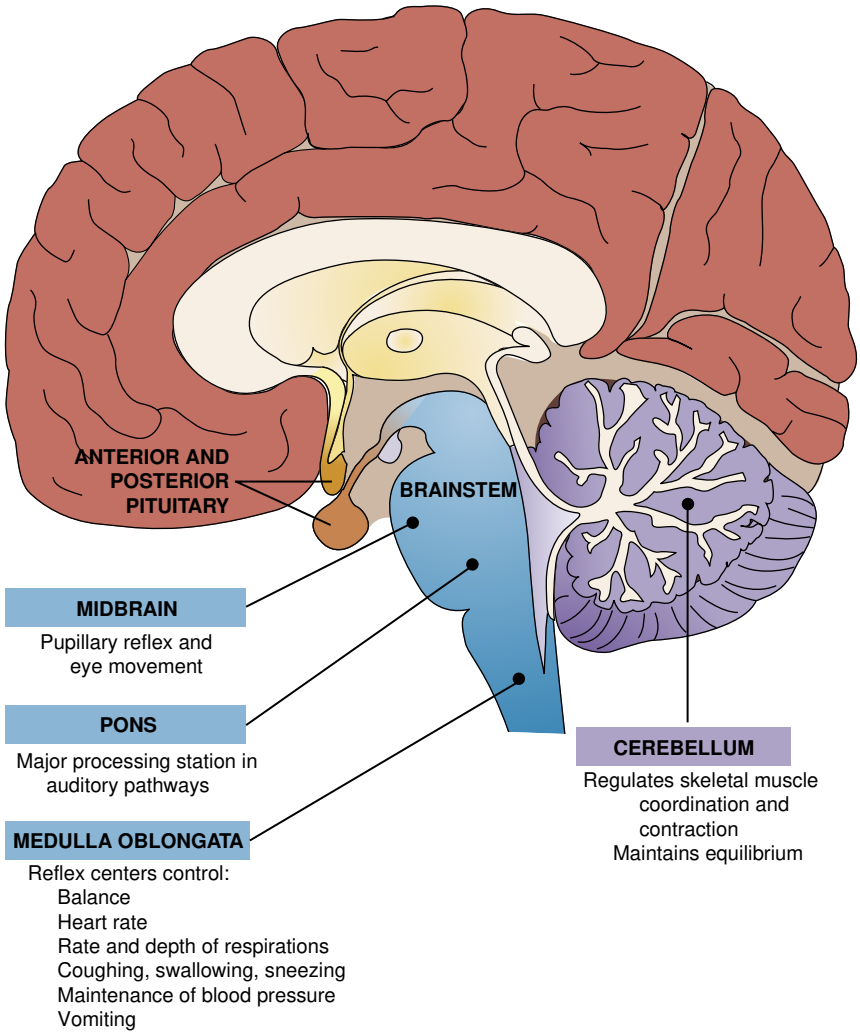


Fig. 3.4 The functions of the brainstem and cerebellum.