UNIT

Basic Concepts in Psychiatric-Mental Health Nursing

1 The Concept of Stress Adaptation

CORE CONCEPTS

Adaptation
Maladaptation
Stressor

CHAPTER OUTLINE

Objectives
Homework Assignment
Stress as a Biological Response
Stress as an Environmental Event
Stress as a Transaction Between the Individual and the Environment
Stress Management
Summary and Key Points
Review Questions

KEY TERMS

adaptive responses
fight-or-flight syndrome
general adaptation syndrome
maladaptive responses
precipitating event
predisposing factors

OBJECTIVES

After reading this chapter, the student will be able to:

1. Define *adaptation* and *maladaptation*.
2. Identify physiological responses to stress.
3. Explain the relationship between stress and "diseases of adaptation."
4. Describe the concept of stress as an environmental event.
5. Explain the concept of stress as a transaction between the individual and the environment.
6. Discuss adaptive coping strategies in the management of stress.

HOMEWORK ASSIGNMENT

Please read the chapter and answer the following questions:

1. How are the body's physiological defenses affected when under sustained stress? Why?
2. In the view of stress as an environmental event, what aspects are missing when considering an individual's response to a stressful situation?
3. In their study, what event did Miller and Rahe (1997) find produced the highest level of stress reaction in their participants?
4. What is the initial step in stress management?

Psychologists and others have struggled for many years to establish an effective definition of the term *stress*. This term is used loosely today and still lacks a definitive explanation. Stress may be viewed as an individual's reaction to any change that requires an adjustment or response, which can be physical, mental, or emotional. Responses directed at stabilizing internal biological processes and preserving self-esteem can be viewed as healthy adaptations to stress.

Roy (1976), a nursing theorist, defined an **adaptive response** as behavior that maintains the integrity of the individual. Adaptation is viewed as positive and is correlated with a healthy response. When behavior

disrupts the integrity of the individual, it is perceived as maladaptive. **Maladaptive responses** by the individual are considered to be negative or unhealthy.

Various 20th-century researchers contributed to several different concepts of stress. Three of these concepts include stress as a biological response, stress as an environmental event, and stress as a transaction between the individual and the environment. This chapter includes an explanation of each of these concepts.

> **CORE CONCEPT**
> **Stressor**
> A biological, psychological, social, or chemical factor that causes physical or emotional tension and may contribute to the development of certain illnesses.

Stress as a Biological Response

In 1956, Hans Selye published the results of his research on the physiological response of a biological system to an imposed change on the system. Since his initial publication, his definition of stress has evolved to "the state manifested by a specific syndrome which consists of all the nonspecifically induced changes within a biologic system" (Selye, 1976). This combination of symptoms has come to be known as the **fight-or-flight syndrome.** Schematics of these biological responses, both initially and with sustained stress, are presented in Figures 1–1 and 1–2. Selye called this phenomenon the **general adaptation syndrome.** He described three distinct stages of the reaction:

1. **Alarm reaction stage:** During this stage, the physiological responses of the fight-or-flight syndrome are initiated.

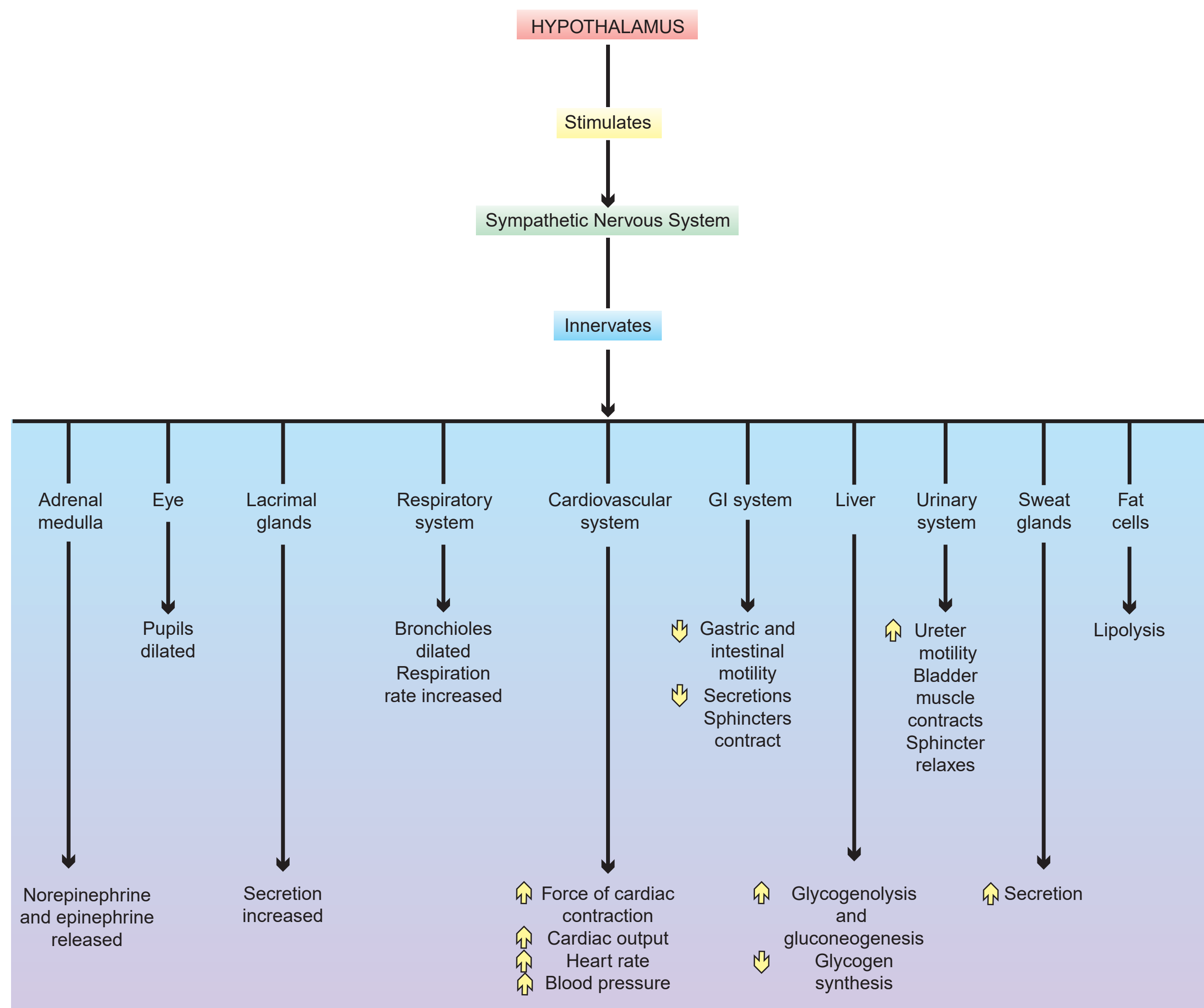

FIGURE 1–1 The fight-or-flight syndrome: The initial stress response.

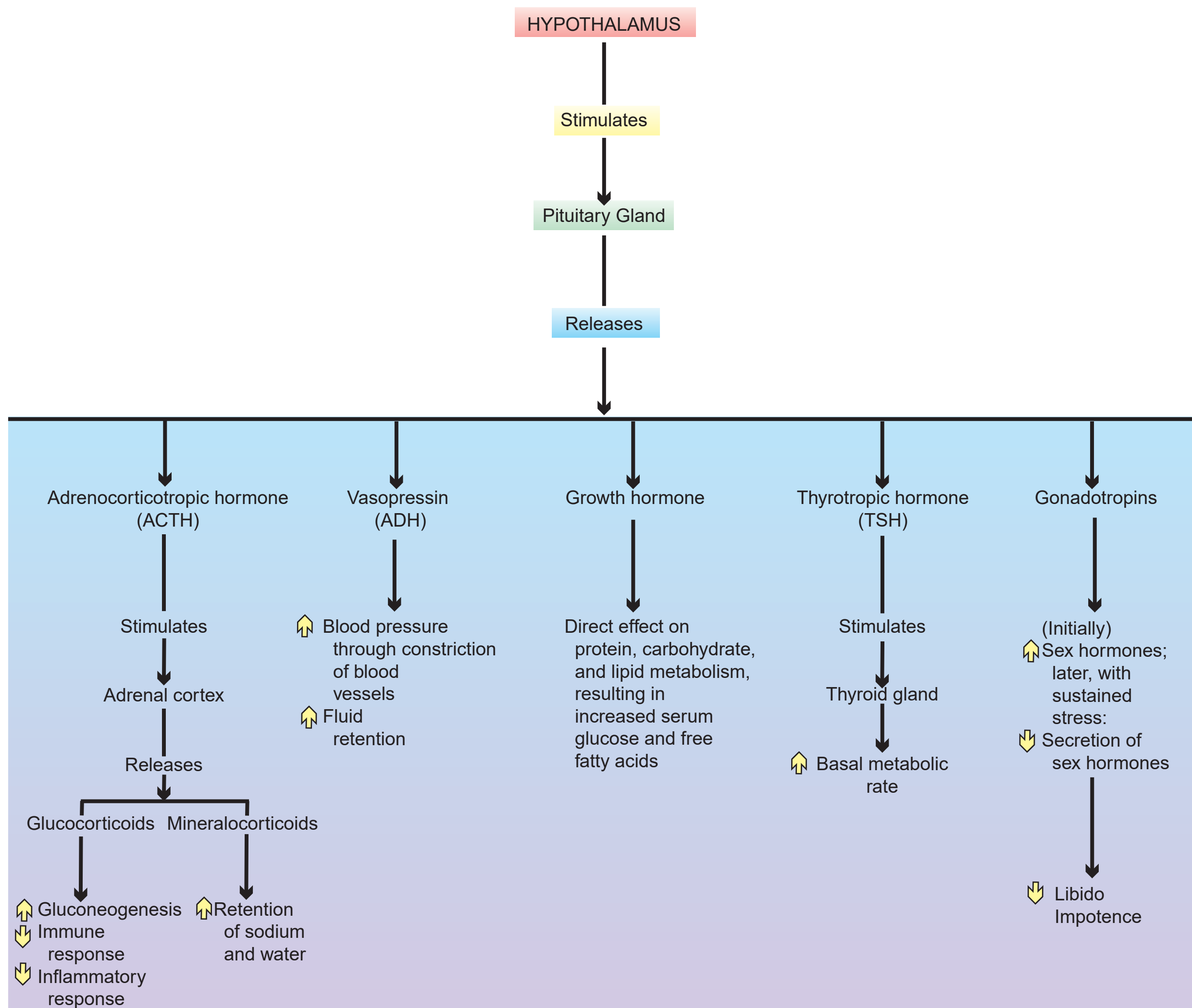

FIGURE 1–2 The fight-or-flight syndrome: The sustained stress response.

2. **Stage of resistance:** The individual uses the physiological responses of the first stage as a defense in the attempt to adapt to the stressor. If adaptation occurs, the third stage is prevented or delayed. Physiological symptoms may disappear.
3. **Stage of exhaustion:** This stage occurs when the body responds to prolonged exposure to a stressor. The adaptive energy is depleted, and the individual can no longer draw from the resources for adaptation described in the first two stages. Diseases of adaptation (e.g., headaches, mental disorders, coronary artery disease, ulcers, colitis) may occur. Without intervention for reversal, exhaustion and, in some cases, even death, ensues (Selye, 1956, 1974).

The fight-or-flight response undoubtedly served our ancestors well. Those *Homo sapiens* who had to face the giant grizzly bear or the saber-toothed tiger as part of their struggle for survival must have used these adaptive resources to their advantage. The response was elicited in emergency situations, used in the preservation of life, and followed by restoration of the compensatory mechanisms to the preemergent condition (homeostasis).

Selye performed his extensive research in a controlled setting with laboratory animals as subjects. He elicited the physiological responses with physical stimuli, such as exposure to heat or extreme cold, electric shock, injection of toxic agents, restraint, and surgical injury. Since the publication of his original research, it has become apparent that the fight-or-flight syndrome of symptoms occurs in response to psychological or emotional stimuli just as it does to physical stimuli. Psychological or emotional stressors are often not resolved as rapidly as physical stressors, so the body may be depleted of its adaptive energy more readily than it is from physical stressors. The fight-or-flight response may be inappropriate or even

dangerous in our modern lifestyle in which stress has been described as a pervasive, chronic, and relentless psychosocial state. When the stress response becomes chronic, the body's existence in the aroused condition for extended time periods promotes susceptibility to disease.

CORE CONCEPT

Adaptation

Adaptation is said to occur when an individual's physical or behavioral response to any change in his or her internal or external environment results in preservation of individual integrity or timely return to equilibrium.

Stress as an Environmental Event

A second concept defines stress as an "event" that triggers an individual's adaptive physiological and psychological responses. The event creates change in the life pattern of the individual, requires significant adjustment in lifestyle, and taxes available personal resources. The change can be either positive, such as outstanding personal achievement, or negative, such as being fired from a job. The emphasis here is on *change* from the existing steady state of the individual's life pattern.

Miller and Rahe (1997) have updated the original Social Readjustment Rating Scale devised by Holmes and Rahe in 1967 to reflect an increased number of modern stressors. Just as in the earlier version, numerical values are assigned to various common life events based on the stress these events create. In their research, Miller and Rahe found that women react to life stress events at higher levels than do men, and unmarried people gave higher scores than married people for most of the events. Younger participants rated more events at a higher stress level than did older participants. A high score on the Recent Life Changes Questionnaire (RLCQ) places the individual at greater susceptibility to physical or psychological illness. The questionnaire may be completed considering life stressors within a 6-month or 1-year period. Six-month totals equal to or greater than 300 life change units (LCUs) or 1-year totals equal to or greater than 500 LCUs are considered indicative of a high level of recent life stress, thereby increasing the individual's risk of illness. The RLCQ is presented in Table 1–1.

It is unknown whether stress overload merely predisposes a person to illness or actually precipitates it, but there does appear to be a link (Amirkhan, 2012). Individuals differ in their reactions to life events, and these variations are related to the degree to which the change is perceived as stressful. Life changes

TABLE 1–1 The Recent Life Changes Questionnaire

LIFE CHANGE EVENT	LCU
HEALTH	
An injury or illness which:	74
Kept you in bed a week or more, or sent you to the hospital	
Was less serious than above	44
Major dental work	26
Major change in eating habits	27
Major change in sleeping habits	26
Major change in your usual type/amount of recreation	28
WORK	
Change to a new type of work	51
Change in your work hours or conditions	35
Change in your responsibilities at work:	
More responsibilities	29
Fewer responsibilities	21
Promotion	31
Demotion	42
Transfer	32
Troubles at work:	
With your boss	29
With coworkers	35
With persons under your supervision	35
Other work troubles	28
Major business adjustment	60
Retirement	52
Loss of job:	
Laid off from work	68
Fired from work	79
Correspondence course to help you in your work	18
PERSONAL AND SOCIAL	
Change in personal habits	26
Beginning or ending school or college	38
Change of school or college	35
Change in political beliefs	24
Change in religious beliefs	29

Continued

TABLE 1–1 The Recent Life Changes Questionnaire—cont'd

LIFE CHANGE EVENT	LCU	LIFE CHANGE EVENT	LCU
Change in social activities	27	Spouse beginning or ending work	46
Vacation	24	Child leaving home:	
New, close, personal relationship	37	To attend college	41
Engagement to marry	45	Due to marriage	41
Girlfriend or boyfriend problems	39	For other reasons	45
Sexual difficulties	44	Change in arguments with spouse	50
"Falling out" of a close personal relationship	47	In-law problems	38
An accident	48	Change in the marital status of your parents:	
Minor violation of the law	20	Divorce	59
Being held in jail	75	Remarriage	50
Death of a close friend	70	Separation from spouse:	
Major decision regarding your immediate future	51	Due to work	53
Major personal achievement	36	Due to marital problems	76
HOME AND FAMILY		Divorce	96
Major change in living conditions	42	Birth of grandchild	43
Change in residence:		Death of spouse	119
Move within the same town or city	25	Death of other family member:	
Move to a different town, city, or state	47	Child	123
Change in family get-togethers	25	Brother or sister	102
Major change in health or behavior of family member	55	Parent	100
Marriage	50	**FINANCIAL**	
Pregnancy	67	Major change in finances:	
Miscarriage or abortion	65	Increased income	38
Gain of a new family member:		Decreased income	60
Birth of a child	66	Investment and/or credit difficulties	56
Adoption of a child	65	Loss or damage of personal property	43
A relative moving in with you	59	Moderate purchase	20
		Major purchase	37
		Foreclosure on a mortgage or loan	58

LCU, life change unit.

SOURCE: Miller, M.A., & Rahe, R.H. (1997). Life changes scaling for the 1990s. *Journal of Psychosomatic Research, 43*(3), 279-292, with permission.

questionnaires have been criticized because they do not consider the individual's perception of the event. These types of instruments also fail to consider cultural variations, the individual's coping strategies, and available support systems at the time when the life change occurs. Amirkhan (2012) developed a tool to assess stress overload that attempts to correct for these limitations by asking a series of 30 questions that all begin with "In the past week have you felt . . ." followed by choices such as calm, inadequate, depressed, and others. The emphasis in this tool is on the individual's perception of events rather than on the events themselves. Although the approaches to assessing for stress and vulnerability vary, it is clear that positive coping mechanisms and strong social or familial support can reduce the intensity of

stressful life changes and promote a more adaptive response.

Stress as a Transaction Between the Individual and the Environment

The concept of stress as a transaction between the individual and the environment emphasizes the *relationship* between internal variables (within an individual) and external variables (within the environment). This concept parallels the modern concept of disease etiology. No longer is causation viewed solely as an external entity; whether or not illness occurs depends also on the receiving organism's susceptibility. Similarly, to predict psychological stress as a reaction, the internal characteristics of the person in relation to the environment must be considered.

Precipitating Event

Lazarus and Folkman's seminal theory (1984) defines stress (and potentially illness) as a psychological phenomenon in which the relationship between the person and the environment is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being. A **precipitating event** is a stimulus arising from the internal or external environment and perceived by the individual in a specific manner. Determination of an event as stressful depends on the individual's cognitive appraisal of the situation. *Cognitive appraisal* is an individual's evaluation of the personal significance of the event or occurrence. The event "precipitates" a response on the part of the individual, and the response is influenced by the individual's perception of the event. The *cognitive response* consists of a primary appraisal and a secondary appraisal.

Individual's Perception of the Event

Primary Appraisal

Lazarus and Folkman (1984) identify three types of primary appraisal: irrelevant, benign-positive, and stressful. An event is judged *irrelevant* when the outcome holds no significance for the individual. A *benign-positive* outcome is one that is perceived as producing pleasure for the individual. *Stress appraisals* include harm or loss, threat, and challenge. *Harm* or *loss* appraisals refer to damage or loss already experienced by the individual. Appraisals of a *threatening* nature are perceived as anticipated harms or losses. When an event is appraised as *challenging,* the individual focuses on potential for gain or growth rather than on risks associated with the event. Challenge produces stress even though the emotions associated with it (eagerness and excitement) are viewed as positive, and coping mechanisms must be called upon to face the new encounter. Challenge and threat may occur together when an individual experiences these positive emotions along with fear or anxiety over possible risks associated with the challenging event.

When stress is produced in response to harm or loss, threat, or challenge, a secondary appraisal is made by the individual.

Secondary Appraisal

The secondary appraisal is an assessment of skills, resources, and knowledge that the person possesses to deal with the situation. The individual evaluates by considering the following:

- Which coping strategies are available to me?
- Will the option I choose be effective in this situation?
- Do I have the ability to use that strategy in an effective manner?

The interaction between the primary appraisal of the event that has occurred and the secondary appraisal of available coping strategies determines the quality of the individual's adaptation response to stress.

Predisposing Factors

A variety of elements influence how an individual perceives and responds to a stressful event. These **predisposing factors** strongly influence whether the response is adaptive or maladaptive. Types of predisposing factors include genetic influences, past experiences, and existing conditions.

Genetic influences are those circumstances of an individual's life that are acquired through heredity. Examples include family history of physical and psychological conditions (strengths and weaknesses) and temperament (behavioral characteristics present at birth that evolve with development).

Past experiences are occurrences that result in learned patterns that can influence an individual's adaptation response. They include previous exposure to the stressor or other stressors, learned coping responses, and degree of adaptation to previous stressors.

Existing conditions incorporate vulnerabilities that influence the adequacy of the individual's physical, psychological, and social resources for dealing with adaptive demands. Examples include current health status, motivation, developmental maturity, severity and duration of the stressor, financial and educational resources, age, existing coping strategies, and a caring support system. Hobfoll's conservation of resources theory (Hobfoll 1989; Hobfoll, Schwarzer, & Chon, 1998) adds that as existing conditions (loss or lack of resources) exceed the person's perception of adaptive capabilities, the person not only experience stress in the present but also becomes more

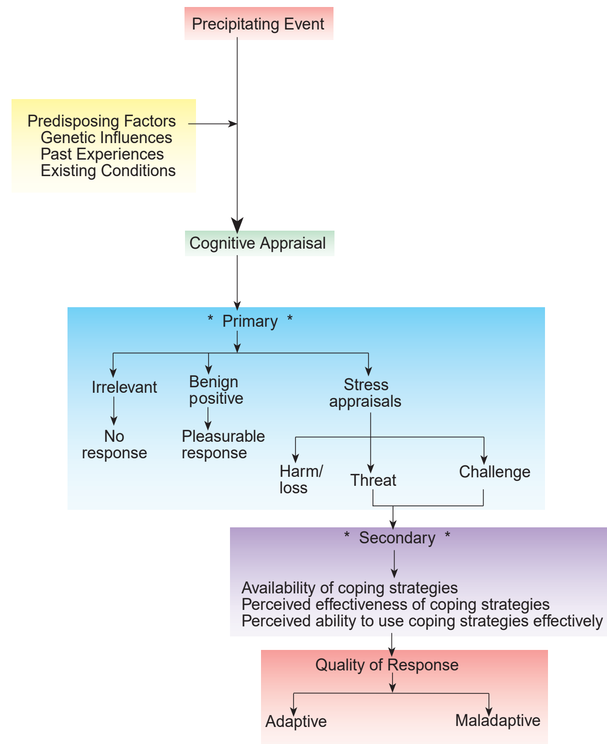

FIGURE 1–3 Transactional model of stress and adaptation.

vulnerable to the effects of stress in the future due to a "weaker resource reservoir to call on to meet future demand" (Hobfoll et al., 1998, p. 191). All of the preceding concepts and theories are foundational to the transactional model of stress and adaptation that serves as the framework for the process of nursing in this text. A graphic display of the model is presented in Figure 1–3.

> **CORE CONCEPT**
>
> **Maladaptation**
>
> Maladaptation occurs when an individual's physical or behavioral response to any change in his or her internal or external environment results in disruption of individual integrity or in persistent disequilibrium.

Stress Management*

The growth of stress management into a multimillion-dollar-a-year industry unto itself attests to its importance in our society. Stress management involves the use of coping strategies in response to stressful situations. Coping strategies are adaptive when they protect the individual from harm (or additional harm) or strengthen the individual's ability to meet challenging situations. Adaptive responses help restore homeostasis to the body and impede the development of diseases of adaptation. Positive adaptation, particularly in response to adversity, has also been referred to as *resilience*.

Responses are considered maladaptive when the conflict goes unresolved or intensifies. Energy resources become depleted as the body struggles to compensate for the chronic physiological and psychological arousal experienced in response to the stressful event. The effect is a significant vulnerability to physical or psychological illness. One key to stress management is to identify factors and practices that contribute to adaptive coping and resilience.

Adaptive Coping Strategies

Awareness

The initial step in managing stress is awareness—to become aware of the factors that create stress and the feelings associated with a stressful response. Stress can be controlled only when one recognizes the signs that it is occurring. As an individual becomes aware of stressors, he or she can choose to omit, avoid, or accept them.

Relaxation

Individuals experience relaxation in different ways. Some people relax by engaging in large motor activities, such as sports, jogging, and physical exercise. Others use techniques such as breathing exercises and progressive relaxation. A discussion of relaxation therapy may be found online at Davis*Plus*.

Meditation

Meditation has been shown to produce a lasting reduction in blood pressure and other stress-related symptoms when practiced for 20 minutes once or twice a day (Scott, 2016). The practice of mindfulness meditation is foundational to many psychosocial interventions aimed at reducing anxiety and improving engagement in problem-solving. Meditation involves assuming a comfortable position, closing the eyes, casting off all other thoughts, and concentrating on a single word, sound, or phrase that has positive meaning to the individual. It may also involve concentrating on one's breathing or other mindfulness practices. The technique of meditation is described in detail online at Davis*Plus*.

Interpersonal Communication

As previously mentioned, the strength of an individual's available support system is an existing condition that significantly influences his or her adaptation when coping with stress. Sometimes just "talking the problem out" with an empathetic individual can interrupt

*Some stress management techniques are discussed at greater length in Unit 3 of this text and in the Complementary and Psychosocial Therapies chapter available online at www.DavisPlus.com.

escalation of the stress response. Writing about one's feelings in a journal or diary can also be therapeutic.

Problem-Solving

Problem-solving is an adaptive coping strategy in which the individual is able to view the situation objectively (or to seek assistance from another individual to accomplish this if the anxiety level is too high to concentrate) and then apply a problem-solving and decision-making model such as the following:

- Assess the facts of the situation.
- Formulate goals for resolution of the stressful situation.
- Study the alternatives for dealing with the situation.
- Determine the risks and benefits of each alternative.
- Select an alternative.
- Implement the alternative selected.
- Evaluate the outcome of the alternative implemented.
- If the first choice is ineffective, select and implement a second option.

Pets

Studies show that those who care for pets, especially dogs and cats, are better able to cope with the stressors of life (Mayo Clinic, 2015). The physical act of stroking a dog's or cat's fur can be therapeutic, giving the animal an intuitive sense of being cared for and providing the individual the calming feeling of warmth, affection, and interdependence with a reliable, trusting being. Studies have also shown that individuals with companion pets demonstrate improvements in heart health, allergies, anxiety, and mental illnesses such as depression (Casciotti & Zuckerman, 2016, Donehy, 2015).

Music

It is true that music can "soothe the savage beast." Studies have shown multiple benefits of listening to music, including relieving pain, improving motivation and performance, improving sleep, enhancing blood vessel function, reducing stress, relieving symptoms of depression, improving cognition, and easing recovery in stroke patients (Christ, 2013).

Summary and Key Points

- Stress has become a chronic and pervasive condition in the United States.
- Adaptive behavior is a stress response that maintains the integrity of the individual with a timely return to equilibrium. It is viewed as positive and is correlated with a healthy response.
- When behavior disrupts the integrity of the individual or results in persistent disequilibrium, it is perceived as maladaptive. Maladaptive responses by the individual are unhealthy.
- A stressor is defined as a biological, psychological, social, or chemical factor that causes physical or emotional tension and may be a factor in the etiology of certain illnesses.
- Hans Selye identified the biological changes associated with a stressful situation as the fight-or-flight syndrome.
- Selye called the general reaction of the body to stress the "general adaptation syndrome," which occurs in three stages: the alarm reaction stage, the stage of resistance, and the stage of exhaustion.
- When individuals remain in the aroused response to stress for an extended period of time, they become susceptible to diseases, including headaches, mental disorders, coronary artery disease, ulcers, and colitis.
- Stress may also be viewed as an environmental event, which results when a change from the existing steady state of the individual's life pattern occurs.
- When an individual experiences a high level of life change events, he or she becomes susceptible to physical or psychological illness.
- Limitations of the environmental concept of stress include failure to consider the individual's perception of the event, coping strategies, and available support systems at the time when the life change occurs.
- Stress is more appropriately expressed as a transaction between the individual and the environment that is appraised by the individual as taxing or exceeding his or her resources and endangering his or her well-being.
- The individual makes a cognitive appraisal of the precipitating event to determine the personal significance of the event or occurrence.
- Primary cognitive appraisals may be irrelevant, benign-positive, or stressful.
- Secondary cognitive appraisals include assessment and evaluation by the individual of skills, resources, and knowledge to deal with the stressful situation.
- Predisposing factors influence how an individual perceives and responds to a stressful event. They include genetic influences, past experiences, and existing conditions.
- Stress management involves the use of adaptive coping strategies in response to stressful situations in an effort to impede the development of diseases of adaptation.
- Examples of adaptive coping strategies include developing awareness, relaxation, meditation, interpersonal communication with caring other, problem-solving, pets, and music.

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Review Questions

Self-Examination/Learning Exercise

Select the answer that is most appropriate for each of the following questions.

1. Sondra, who lives in Maine, hears on the evening news that 25 people were killed in a tornado in south Texas. Sondra experiences no anxiety upon hearing of this stressful situation. What is the most likely reason that Sondra experiences no anxiety?
   a. She is selfish and does not care what happens to other people.
   b. She appraises the event as irrelevant to her own situation.
   c. She assesses that she has the skills to cope with the stressful situation.
   d. She uses suppression as her primary defense mechanism.
2. Cindy regularly develops nausea and vomiting when she is faced with a stressful situation. Which of the following is most likely a predisposing factor to this maladaptive response by Cindy?
   a. Cindy inherited her mother's "nervous" stomach.
   b. Cindy is fixed in a lower level of development.
   c. Cindy has never been motivated to achieve success.
   d. When Cindy was a child, her mother pampered her and kept her home from school when she was ill.
3. When an individual's stress response is sustained over a long period, the endocrine system involvement results in which of the following?
   a. Decreased resistance to disease
   b. Increased libido
   c. Decreased blood pressure
   d. Increased inflammatory response
4. Why is stress management extremely important in today's society?
   a. Evolution has diminished the human capability for fight-or-flight responses.
   b. The stressors of today tend to be ongoing, resulting in a sustained response.
   c. We have stress disorders that did not exist in the days of our ancestors.
   d. One never knows when one will have to face a grizzly bear or saber-toothed tiger in today's society.
5. Elena has just received a promotion on her job. She is very happy and excited about moving up in her company, but she has been experiencing anxiety since receiving the news. Her primary appraisal is that she most likely views the situation as which of the following?
   a. Benign-positive
   b. Irrelevant
   c. Challenging
   d. Threatening
6. John comes to the mental health clinic with reports of anxiety and depression. According to the transactional model of stress and adaptation, which of the following are important to consider when assessing John's complaints? (Select all that apply.)
   a. John's perception of precipitating events
   b. Past stressors and degree of positive coping abilities
   c. Existing social supports
   d. Physical strength
   e. Pupillary adaptation to light

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2 Mental Health and Mental Illness: Historical and Theoretical Concepts

CORE CONCEPTS
Anxiety
Grief

CHAPTER OUTLINE

Objectives
Homework Assignment
Historical Overview of Psychiatric Care
Mental Health
Mental Illness
Psychological Adaptation to Stress
Mental Health/Mental Illness Continuum
Summary and Key Points
Review Questions

KEY TERMS

anticipatory grieving
bereavement overload
defense mechanisms
- *compensation*
- *denial*
- *displacement*
- *identification*
- *intellectualization*
- *introjection*
- *isolation*
- *projection*
- *rationalization*
- *reaction formation*
- *regression*
- *repression*
- *sublimation*
- *suppression*
- *undoing*

humors
mental health
mental illness
neurosis
psychosis

OBJECTIVES

After reading this chapter, the student will be able to:

1. Discuss the history of psychiatric care.
2. Define *mental health* and *mental illness*.
3. Discuss cultural elements that influence attitudes toward mental health and mental illness.
4. Describe psychological adaptation responses to stress.
5. Correlate adaptive and maladaptive responses to the mental health/mental illness continuum.

HOMEWORK ASSIGNMENT

Please read the chapter and answer the following questions:

1. Explain the concepts of *incomprehensibility* and *cultural relativity.*
2. Describe some symptoms of panic anxiety.
3. Jane was involved in an automobile accident in which both her parents were killed. When you ask her about it, she says she has no memory of the accident. What ego defense mechanism is she using?
4. In what stage of the grieving process is the individual with delayed or inhibited grief fixed?

The consideration of mental health and mental illness has its basis in the cultural beliefs of the society in which the behavior takes place. Some cultures are quite liberal in the range of behaviors that are considered acceptable, whereas others have very little tolerance for behaviors that deviate from the cultural norms.

A study of the history of psychiatric care reveals some shocking truths about past treatment of individuals with mental illness. Many were kept in control

by means that today could be considered less than humane.

This chapter deals with the evolution of psychiatric care from ancient times to the present. **Mental health** and **mental illness** are defined, and the psychological adaptation to stress is explained in terms of the two major responses: anxiety and grief. Behavioral responses are conceptualized along the mental health/mental illness continuum.

Historical Overview of Psychiatric Care

Primitive beliefs regarding mental disturbances took several views. Some cultures thought that an individual with mental illness had been dispossessed of his or her soul and wellness could be achieved only if the soul was returned. Others believed that evil spirits or supernatural or magical powers had entered the body. The "cure" for these individuals involved a ritualistic exorcism to purge the body of these unwanted forces. This purging often consisted of brutal beatings, starvation, or other torturous means. Still other cultures considered that the individual with mental illness may have broken a taboo or sinned against another individual or God, for which ritualistic purification was required or various types of retribution were demanded. The correlation of mental illness to demonology led to some individuals with mental illness being burned at the stake.

These ancient beliefs evolved with increasing knowledge about mental illness and changes in cultural, religious, and sociopolitical attitudes. Around 400 BC, the work of Hippocrates was the first to place mental illness in a physical rather than supernatural context. Hippocrates theorized that mental illness was caused by irregularity in the interaction of the four body fluids: blood, black bile, yellow bile, and phlegm. He called these body fluids **humors** and associated each with a particular disposition. Disequilibrium among these four humors was often treated by inducing vomiting and diarrhea with potent cathartic drugs.

During the Middle Ages (AD 500 to 1500), the association of mental illness with witchcraft and the supernatural continued to prevail in Europe. During this period, many people with mental illness were set to sea alone in sailing boats with little guidance to search for their lost rationality, a practice from which the expression "ship of fools" was derived. But in Middle Eastern countries, a change in attitude began to occur that led to the perception of mental illness as a medical problem rather than a result of supernatural forces. This notion gave rise to the establishment of special units for clients with mental illness within general hospitals as well as residential institutions specifically designed for this purpose. They can likely be considered the first asylums for individuals with mental illness.

Colonial Americans tended to reflect the attitudes of the European communities from which they had emigrated. Particularly in the New England area, individuals were punished for behavior attributed to witchcraft. In the 16th and 17th centuries, institutions for people with mental illness did not exist in the United States, and care of these individuals became a family responsibility. Those without family or other resources became the responsibility of the communities in which they lived and were incarcerated in places where they could do no harm to themselves or others.

The first hospital in America to admit clients with mental illness was established in Philadelphia in the middle of the 18th century. Benjamin Rush, often called the father of American psychiatry, was a physician at the hospital. He initiated the provision of humanistic treatment and care for clients with mental illness. But although he included kindness, exercise, and socialization in his care, he also employed harsh methods such as bloodletting, purging, various types of physical restraints, and extremes of temperatures, reflecting the medical therapies of that era.

The 19th century brought the establishment of a system of state asylums, largely the result of the work of Dorothea Dix, a former New England schoolteacher who lobbied tirelessly on behalf of the mentally ill population. She was unfaltering in her belief that mental illness was curable and that state hospitals should provide humanistic therapeutic care. This system of hospital care for individuals with mental illness grew, but the mentally ill population grew faster. The institutions became overcrowded and understaffed, and conditions deteriorated. Therapeutic care reverted to custodial care in state hospitals, which provided the largest resource for individuals with mental illness until the initiation of the community health movement of the 1960s (see Chapter 36, Community Mental Health Nursing).

The emergence of psychiatric nursing began in 1873 with the graduation of Linda Richards from the nursing program at the New England Hospital for Women and Children in Boston. She has come to be known as the first American psychiatric nurse. During her career, Richards was instrumental in the establishment of a number of psychiatric hospitals and the first school of psychiatric nursing at the McLean Asylum in Waverly, Massachusetts, in 1882. This school and others like it provided training in

custodial care for clients in psychiatric asylums—training that did not include the study of psychological concepts. Significant change in psychiatric nursing education did not occur until 1955, when incorporation of psychiatric nursing into the curricula became a requirement for all undergraduate schools of nursing. This new curricula emphasized the importance of the nurse–patient relationship and therapeutic communication techniques. Nursing intervention in the somatic therapies (e.g., insulin and electroconvulsive therapy) provided impetus for the incorporation of these concepts into the profession's body of knowledge.

With the increasing need for psychiatric care in the aftermath of World War II, the government passed the National Mental Health Act of 1946. This legislation provided funds for the education of psychiatrists, psychologists, social workers, and psychiatric nurses. Graduate-level education in psychiatric nursing was established during this period. Around the same time, the introduction of antipsychotic medications made it possible for clients with psychoses to more readily participate in their treatment, including nursing therapies.

Knowledge of the history of psychiatric-mental health care contributes to the understanding of the concepts presented in this chapter and those in the online chapter (available at www.DavisPlus.com), which describe the theoretical models of personality development according to various 19th- and 20th-century leaders in the mental health movement. Modern American psychiatric care has its roots in ancient times. A great deal of opportunity exists for continued advancement of this specialty within the practice of nursing.

Mental Health

A number of theorists have attempted to define the concept of mental health. Many of these concepts deal with various aspects of individual functioning. Maslow (1970) emphasized an individual's motivation in the continuous quest for self-actualization. He identified a "hierarchy of needs," with the most basic needs requiring fulfillment before those at higher levels can be achieved and with self-actualization defined as fulfillment of one's highest potential. An individual's position within the hierarchy may revert from a higher level to a lower level based on life circumstances. For example, an individual facing major surgery who has been working to achieve self-actualization may become preoccupied, if only temporarily, with the need for physiological safety. A representation of this needs hierarchy is presented in Figure 2–1.

Maslow described self-actualization as being "psychologically healthy, fully human, highly evolved, and fully mature." He believed that self-actualized individuals possess the following characteristics:

- An appropriate perception of reality
- The ability to accept oneself, others, and human nature
- The ability to manifest spontaneity
- The capacity for focusing concentration on problem-solving
- A need for detachment and desire for privacy
- Independence, autonomy, and a resistance to enculturation
- An intensity of emotional reaction
- A frequency of "peak" experiences that validate the worthwhileness, richness, and beauty of life
- An identification with humankind
- The ability to achieve satisfactory interpersonal relationships
- A democratic character structure and strong sense of ethics
- Creativeness
- A degree of nonconformance

Jahoda (1958) identified a list of six indicators that are a reflection of mental health:

1. **A positive attitude toward self:** This indicator refers to an objective view of self, including knowledge and acceptance of strengths and limitations. The individual feels a strong sense of personal identity and security within his or her environment.
2. **Growth, development, and the ability to achieve self-actualization:** This indicator correlates with whether the individual successfully achieves the tasks associated with each level of development (see Erikson, in the online chapter Theoretical Models of Personality Development). With successful achievement in each level, the individual gains motivation for advancement to his or her highest potential.
3. **Integration:** The focus of this indicator is on maintaining equilibrium or balance among various life processes. Integration includes the ability to adaptively respond to the environment and the development of a philosophy of life, both of which help the individual maintain a manageable anxiety level in response to stressful situations.
4. **Autonomy:** This indicator refers to the individual's ability to perform in an independent, self-directed manner. He or she makes choices and accepts responsibility for the outcomes.
5. **Perception of reality:** Accurate reality perception is a positive indicator of mental health. It includes

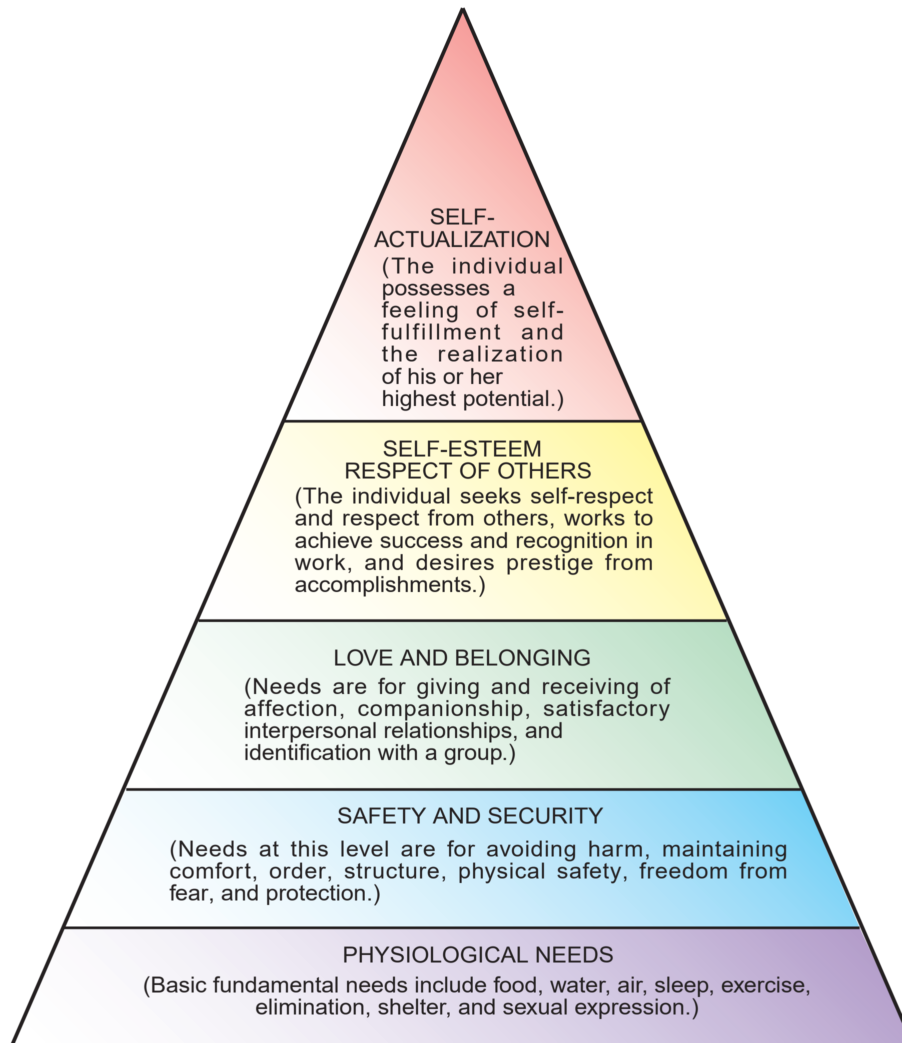

FIGURE 2–1 Maslow's hierarchy of needs.

perception of the environment without distortion as well as the capacity for empathy and social sensitivity—a respect and concern for the wants and needs of others.

6. **Environmental mastery:** This indicator suggests that the individual has achieved a satisfactory role within the group, society, or environment and is able to love and accept the love of others. When faced with life situations, the individual is able to strategize, make decisions, change, adjust, and adapt. Life offers satisfaction to the individual who has achieved environmental mastery.

Black and Andreasen (2014) describe mental health as a state of being that is relative rather than absolute but marked by the successful performance of mental functions such as adapting to change, coping with stressors, fulfilling relationships with others, and the accomplishing productive activities.

Robinson (1983) offers the following definition of mental health:

> A dynamic state in which thought, feeling, and behavior that is age-appropriate and congruent with the local and cultural norms is demonstrated. (p. 74)

For purposes of this text, and in keeping with the framework of stress and adaptation, a modification of Robinson's definition of mental health is considered. Thus, *mental health* is viewed as "the successful adaptation to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are age-appropriate and congruent with local and cultural norms."

Mental Illness

Arriving at a universal concept of mental illness is difficult because of the cultural factors that influence such

a definition. However, certain elements are associated with individuals' perceptions of mental illness, regardless of cultural origin. Horwitz (2010) identifies two of these elements as (1) incomprehensibility and (2) cultural relativity.

Incomprehensibility relates to the inability of the general population to understand the motivation behind an individual's behavior. When observers are unable to find meaning or comprehensibility in behavior, they are likely to label that behavior as mental illness. Horwitz states, "Observers attribute labels of mental illness when the rules, conventions, and understandings they use to interpret behavior fail to find any intelligible motivation behind an action" (p. 17). The element of *cultural relativity* considers that these rules, conventions, and understandings are conceived within an individual's own particular culture. Behavior that is considered "normal" and "abnormal" is defined by one's cultural or societal norms. Horwitz identified a number of cultural aspects of mental illness, which are presented in Box 2–1.

The American Psychiatric Association (2013), in its *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5),* defines mental disorder as

> a syndrome characterized by clinically significant disturbance in an individual's cognitions, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expected or culturally approved response to a common stressor or loss such as the death of a loved one is not a mental disorder. (p. 20)

For purposes of this text, and in keeping with the transactional model of stress and adaptation, mental illness is characterized as "maladaptive responses to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are incongruent with the local and cultural norms and that interfere with the individual's social, occupational, and/or physical functioning."

Psychological Adaptation to Stress

All individuals exhibit characteristics associated with both mental health and mental illness at any given point in time. Chapter 1, The Concept of Stress Adaptation, describes how an individual's response to stressful situations is influenced by physiological factors, his or her personal perception of the event, and a variety of predisposing factors such as heredity, temperament, learned response patterns, developmental maturity, existing coping strategies, and support systems of caring others.

BOX 2–1 Cultural Aspects of Mental Illness

1. Usually, members of the community, not a psychiatric professional, initially recognizes that an individual's behavior deviates from societal norms.
2. People who are related to an individual or who are of the same cultural or social group are less likely to label an individual's behavior as mentally ill than are people who are relationally or culturally distant. Relatives and those who share a culture try to normalize the behavior by looking for an explanation.
3. Often, psychiatrists see a person with mental illness only when the family members can no longer deny the illness. Recognition or acknowledgment of possible mental illness typically occurs when behavior is at its worst as defined by local or cultural norms.
4. Individuals in lower socio-economic classes usually display more mental illness symptoms than do people in higher socio-economic classes. However, they tend to tolerate a wider range of behaviors that deviate from societal norms and are less likely to consider these behaviors as indicative of mental illness. Mental illness labels are most often applied by psychiatric professionals.
5. The higher the social class, the greater the recognition of mental illness behaviors. Members of the higher social classes are likely to be self-labeled or labeled by family members or friends. Psychiatric assistance is sought near the first signs of emotional disturbance.
6. The more highly educated the person, the greater the recognition of mental illness behaviors. However, even more relevant than the *amount* of education is the *type* of education. Individuals in the more humanistic professions (lawyers, social workers, artists, teachers, nurses) are more likely to seek psychiatric assistance than are professionals such as business executives, computer specialists, accountants, and engineers.
7. Women are more likely than men to recognize the symptoms of mental illness and seek assistance.
8. The greater the cultural distance from the *mainstream* of society (i.e., the fewer the ties with *conventional* society), the greater the likelihood of negative societal response to mental illness. For example, immigrants have a greater distance from the mainstream than the native born, ethnic minorities greater than the dominant culture, and "bohemians" greater than the bourgeoisie. These groups are more likely to be subjected to coercive treatment, and involuntary psychiatric commitments are more common.

Adapted from Horwitz, A.V. (2010). The social control of mental illness. *Clinton Corners, NY: Percheron Press.*

Anxiety and grief have been described as two primary psychological response patterns to stress. A variety of thoughts, feelings, and behaviors are associated with each of these response patterns. Adaptation is determined by the degree to which the thoughts, feelings, and behaviors interfere with an individual's functioning.

CORE CONCEPT

Anxiety

A diffuse, vague apprehension that is associated with feelings of uncertainty and helplessness.

Anxiety

Feelings of anxiety are so common in our society that they are almost considered universal. Anxiety arises from the chaos and confusion that exists in the world. Fear of the unknown and conditions of ambiguity offer a perfect breeding ground for anxiety to take root and grow. Low levels of anxiety are adaptive and can provide the motivation required for survival. Anxiety becomes problematic when the individual is unable to prevent his or her response from escalating to a level that interferes with the ability to meet basic needs.

Peplau (1963) described four levels of anxiety: mild, moderate, severe, and panic. It is important for nurses to be able to recognize the symptoms associated with each level to plan for appropriate intervention with anxious individuals.

- **Mild anxiety:** This level of anxiety is seldom a problem for the individual. It is associated with the tension experienced in response to the events of day-to-day living. Mild anxiety prepares people for action. It sharpens the senses, increases motivation for productivity, increases the perceptual field, and results in a heightened awareness of the environment. Learning is enhanced, and the individual is able to function at his or her optimal level.
- **Moderate anxiety:** As the level of anxiety increases, the extent of the perceptual field diminishes. The moderately anxious individual is less alert to events occurring in the environment. The individual's attention span and ability to concentrate decrease, although he or she may still attend to needs with direction. Assistance with problem-solving may be required. Increased muscular tension and restlessness are evident.
- **Severe anxiety:** The perceptual field of the severely anxious individual is so greatly diminished that concentration centers on one particular detail only or on many extraneous details. Attention span is extremely limited, and the individual has difficulty completing even the simplest task. Physical symptoms (e.g., headaches, palpitations, insomnia) and emotional symptoms (e.g., confusion, dread, horror) may be evident. Discomfort is experienced to the degree that virtually all overt behavior is aimed at relieving the anxiety.
- **Panic anxiety:** In this most intense state of anxiety, the individual is unable to focus on even one detail in the environment. Misperceptions are common, and a loss of contact with reality may occur. The individual may experience hallucinations or delusions. Behavior may be characterized by wild and desperate actions or extreme withdrawal. Human functioning and communication with others is ineffective. Panic anxiety is associated with a feeling of terror, and individuals may be convinced that they have a life-threatening illness or fear that they are "going crazy," are losing control, or are emotionally weak. Prolonged panic anxiety can lead to physical and emotional exhaustion and can be a life-threatening situation.

A synopsis of the characteristics associated with each of the four levels of anxiety is presented in Table 2–1.

Behavioral Adaptation Responses to Anxiety

A variety of behavioral adaptation responses occur at each level of anxiety. Figure 2–2 depicts these behavioral responses on a continuum of anxiety ranging from mild to panic.

Mild Anxiety

At the mild level, individuals employ any of a number of coping behaviors that satisfy their needs for comfort. Menninger (1963) described the following types of coping mechanisms that individuals use to relieve anxiety in stressful situations:

- Sleeping
- Yawning
- Eating
- Drinking
- Physical exercise
- Daydreaming
- Smoking
- Laughing
- Crying
- Cursing
- Pacing
- Nail biting
- Foot swinging
- Finger tapping
- Fidgeting
- Talking to someone with whom one feels comfortable

Undoubtedly, there are many more responses too numerous to mention here, considering that each individual develops his or her own unique ways to relieve mild anxiety. Some of these behaviors are more adaptive than others.

Mild-to-Moderate Anxiety

Sigmund Freud (1961) identified the ego as the reality component of the personality, governing

TABLE 2–1 Levels of Anxiety

LEVEL	PERCEPTUAL FIELD	ABILITY TO LEARN	PHYSICAL CHARACTERISTICS	EMOTIONAL AND BEHAVIORAL CHARACTERISTICS
Mild	Heightened perception (e.g., noises may seem louder; details within the environment are clearer) Increased awareness Increased alertness	Learning is enhanced	Restlessness Irritability	May remain superficial with others Rarely experienced as distressful Motivation is increased
Moderate	Reduction in perceptual field Reduced alertness to environmental events (e.g., someone talking may not be heard; part of the room may not be noticed)	Learning still occurs but not at optimal ability Decreased attention span Decreased ability to concentrate	Increased restlessness Increased heart and respiration rates Increased perspiration Gastric discomfort Increased muscular tension Increase in speech rate, volume, and pitch	A feeling of discontent May lead to a degree of impairment in interpersonal relationships as individual begins to focus on self and the need to relieve personal discomfort
Severe	Greatly diminished; only extraneous details are perceived, or fixation on a single detail may occur May not take notice of an event even when attention is directed by another	Extremely limited attention span Unable to concentrate or problem-solve Effective learning cannot occur	Headaches Dizziness Nausea Trembling Insomnia Palpitations Tachycardia Hyperventilation Urinary frequency Diarrhea	Feelings of dread, loathing, horror Total focus on self and intense desire to relieve the anxiety
Panic	Unable to focus on even one detail within the environment Misperceptions of the environment common (e.g., a perceived detail may be elaborated and out of proportion)	Learning cannot occur Unable to concentrate Unable to comprehend even simple directions	Dilated pupils Labored breathing Severe trembling Sleeplessness Palpitations Diaphoresis and pallor Muscular incoordination Immobility or purposeless hyperactivity Incoherence or inability to verbalize	Sense of impending doom Terror Bizarre behavior, including shouting, screaming, running about wildly, clinging to anyone or anything from which a sense of safety and security is derived Hallucinations, delusions Extreme withdrawal into self

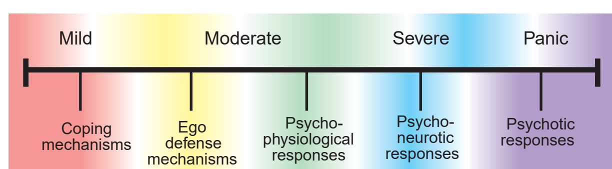

FIGURE 2–2 Adaptation responses on a continuum of anxiety.

problem-solving and rational thinking. As the level of anxiety increases, the strength of the ego is tested, and energy is mobilized to confront the threat. Anna Freud (1953) identified a number of **defense mechanisms** employed by the ego in the face of threat to biological or psychological integrity. Some of these ego defense mechanisms are more adaptive than others, but all are used either consciously or unconsciously as protective devices for the ego in an effort to relieve mild-to-moderate anxiety. The mechanisms become maladaptive when used by an individual to such a degree that there is interference with the ability to deal with reality, effective interpersonal relations, or occupational performance. Maladaptive use of defense mechanisms promotes disintegration of the ego. The major ego defense mechanisms identified by Anna Freud are summarized in Table 2–2.

TABLE 2–2 Ego Defense Mechanisms

DEFENSE MECHANISM	EXAMPLE	DEFENSE MECHANISM	EXAMPLE
COMPENSATION Covering up a real or perceived weakness by emphasizing a trait one considers more desirable	A physically handicapped boy is unable to participate in football, so he compensates by becoming a great scholar.	**RATIONALIZATION** Attempting to make excuses or formulate logical reasons to justify unacceptable feelings or behaviors	John tells the rehab nurse, "I drink because it's the only way I can deal with my bad marriage and my worse job."
DENIAL Refusing to acknowledge the existence of a real situation or the feelings associated with it	A woman drinks alcohol every day and cannot stop, failing to acknowledge that she has a problem.	**REACTION FORMATION** Preventing unacceptable or undesirable thoughts or behaviors from being expressed by exaggerating opposite thoughts or types of behaviors	Jane hates nursing. She attended nursing school to please her parents. During career day, she speaks to prospective students about the excellence of nursing as a career.
DISPLACEMENT The transfer of feelings from one target to another that is considered less threatening or that is neutral	A client is angry with his physician, does not express it, but becomes verbally abusive with the nurse.	**REGRESSION** Retreating in response to stress to an earlier level of development and the comfort measures associated with that level of functioning	When 2-year-old Jay is hospitalized for tonsillitis he will drink only from a bottle, even though his mother states he has been drinking from a cup for 6 months.
IDENTIFICATION An attempt to increase self-worth by acquiring certain attributes and characteristics of an individual one admires	A teenager who required lengthy rehabilitation after an accident decides to become a physical therapist as a result of his experiences.	**REPRESSION** Involuntarily blocking unpleasant feelings and experiences from one's awareness	An accident victim can remember nothing about his accident.
INTELLECTUALIZATION An attempt to avoid expressing actual emotions associated with a stressful situation by using the intellectual processes of logic, reasoning, and analysis	Sarah's husband is being transferred with his job to a city far away from her parents. She hides anxiety by explaining to her parents the advantages associated with the move.	**SUBLIMATION** Rechanneling of drives or impulses that are personally or socially unacceptable into activities that are constructive	A mother whose son was killed by a drunk driver channels her anger and energy into being the president of the local chapter of Mothers Against Drunk Driving.
INTROJECTION Integrating the beliefs and values of another individual into one's own ego structure	Children integrate their parents' value system into the process of conscience formation. A child says to a friend, "Don't cheat. It's wrong."	**SUPPRESSION** The voluntary blocking of unpleasant feelings and experiences from one's awareness	Scarlett says, "I don't want to think about that now. I'll think about that tomorrow."
ISOLATION Separating a thought or memory from the feeling, tone, or emotion associated with it	A young woman describes being attacked and raped without showing any emotion.	**UNDOING** Symbolically negating or canceling out an experience that one finds intolerable	Joe is nervous about his new job and yells at his wife. On his way home he stops and buys her some flowers.
PROJECTION Attributing feelings or impulses unacceptable to one's self to another person	Sue feels a strong sexual attraction to her track coach and tells her friend, "He's coming on to me!"		

Moderate-to-Severe Anxiety

Anxiety at the moderate-to-severe level that remains unresolved over an extended period of time can contribute to a number of physiological disorders. The *DSM-5* (APA, 2013) describes these disorders under the category "Psychological Factors Affecting Other Medical Conditions." The psychological factors may exacerbate symptoms of, delay recovery from, or interfere with treatment of the medical condition. The condition may be initiated or exacerbated by an environmental situation that the individual perceives as stressful. Measurable pathophysiology can be demonstrated. It is thought that psychological and behavioral factors may affect the course of almost every major category of disease, including but not limited to cardiovascular, gastrointestinal, neoplastic, neurological, and pulmonary conditions.

Severe Anxiety

Extended periods of repressed severe anxiety can result in psychoneurotic behavior patterns. **Neurosis** is no longer considered a separate category of mental disorder. However, the term is still used in the literature to further describe the symptomatology of certain disorders and to differentiate from behaviors that occur at the more serious level of *psychosis*. Neuroses are psychiatric disturbances characterized by excessive anxiety that is expressed directly or altered through defense mechanisms. It appears as a symptom such as an obsession, a compulsion, a phobia, or a sexual dysfunction (Sadock, Sadock, & Ruiz, 2015). The following are common characteristics of people with neuroses:

- They are aware that they are experiencing distress.
- They are aware that their behaviors are maladaptive.
- They are unaware of any possible psychological causes of the distress.
- They feel helpless to change their situation.
- They experience no loss of contact with reality.

The following disorders are examples of psychoneurotic responses to anxiety as they appear in the *DSM-5:*

- **Anxiety disorders:** Disorders in which the characteristic features are symptoms of anxiety and avoidance behavior (e.g., phobias, panic disorder, generalized anxiety disorder, and separation anxiety disorder).
- **Somatic symptom disorders:** Disorders in which the characteristic features are physical symptoms for which there is no demonstrable organic pathology. Psychological factors are judged to play a significant role in the onset, severity, exacerbation, or maintenance of the symptoms (e.g., somatic symptom disorder, illness anxiety disorder, conversion disorder, and factitious disorder).
- **Dissociative disorders:** Disorders in which the characteristic feature is a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment (e.g., dissociative amnesia, dissociative identity disorder, and depersonalization-derealization disorder).

Panic Anxiety

At this extreme level of anxiety, an individual is not capable of processing what is happening in the environment and may lose contact with reality. **Psychosis** is defined as a significant thought disturbance in which reality testing is impaired, resulting in delusions, hallucinations, disorganized speech, or catatonic behavior (Black & Andreasen, 2014). The following are common characteristics of people with psychoses:

- They exhibit minimal distress (emotional tone is flat, bland, or inappropriate).
- They are unaware that their behavior is maladaptive.
- They are unaware of any psychological problems (anosognosia).
- They are exhibiting a flight from reality into a less stressful world or one in which they are attempting to adapt.

Examples of psychotic responses to anxiety include schizophrenic, schizoaffective, and delusional disorders.

> **CORE CONCEPT**
>
> **Grief**
>
> Grief is a subjective state of emotional, physical, and social responses to the loss of a valued entity.

Grief

Most individuals experience intense emotional anguish in response to a significant personal loss. A loss is anything that is perceived as such by the individual. Losses may be real, in which case they can be substantiated by others (e.g., death of a loved one, loss of personal possessions), or they may be perceived by the individual alone, unable to be shared or identified by others (e.g., loss of the feeling of femininity following mastectomy). Any situation that creates change for an individual can be identified as a loss. Failure (either real or perceived) also can be viewed as a loss.

The loss or anticipated loss of anything of value to an individual can trigger the grief response. This period of characteristic emotions and behaviors is called *mourning*. The "normal" mourning process is adaptive and is characterized by feelings of sadness, guilt, anger, helplessness, hopelessness, and despair. An absence of mourning after a loss may be considered maladaptive.

Stages of Grief

Kübler-Ross (1969), in extensive research with terminally ill patients, identified five stages of feelings and

behaviors that individuals experience in response to a real, perceived, or anticipated loss:

Stage 1—Denial: This is a stage of shock and disbelief. The response may be one of "No, it can't be true!" The reality of the loss is not acknowledged. Denial is a protective mechanism that allows the individual to cope in an immediate time frame while organizing more effective defense strategies.

Stage 2—Anger: "Why me?" and "It's not fair!" are comments often expressed during the anger stage. Envy and resentment toward individuals not affected by the loss are common. Anger may be directed at the self or displaced on loved ones, caregivers, and even God. There may be a preoccupation with an idealized image of the lost entity.

Stage 3—Bargaining: During this stage, which is usually not visible or evident to others, a "bargain" is made with God in an attempt to reverse or postpone the loss: "If God will help me through this, I promise I will go to church every Sunday and volunteer my time to help others." Sometimes the promise is associated with feelings of guilt for not having performed satisfactorily, appropriately, or sufficiently.

Stage 4—Depression: During this stage, the full impact of the loss is experienced. The sense of loss is intense, and feelings of sadness and depression prevail. This is a time of quiet desperation and disengagement from all association with the lost entity. It differs from *pathological* depression, which occurs when an individual becomes fixed in an earlier stage of the grief process. Rather, stage 4 of the grief response represents advancement toward resolution.

Stage 5—Acceptance: The final stage brings a feeling of peace regarding the loss that has occurred. It is a time of quiet expectation and resignation. The focus is on the reality of the loss and its meaning for the individuals affected by it.

Not all individuals experience each of these stages in response to a loss, nor do they necessarily experience them in this order. Some individuals' grieving behaviors may fluctuate and even overlap between stages.

Anticipatory Grief

When a loss is anticipated, individuals often begin the work of grieving before the actual loss occurs. Most people reexperience the grieving behaviors once the loss occurs, but preparing for the loss in advance can facilitate the process of mourning, actually decreasing the length and intensity of the response. Problems arise, particularly in anticipating the death of a loved one, when family members experience **anticipatory grieving** and complete the mourning process prematurely. They disengage emotionally from the dying person, who may then experience feelings of rejection by loved ones at a time when this psychological support is so necessary.

Resolution

The grief response can last from weeks to years. It cannot be hurried, and individuals must be allowed to progress at their own pace. In the loss of a loved one, grief work usually lasts for at least a year, during which the grieving person experiences each significant anniversary or holiday for the first time without the loved one present.

Length of the grief process may be prolonged by a number of factors. If the relationship with the lost entity was marked by ambivalence or if there had been an enduring love–hate association, reaction to the loss may be burdened with guilt. Guilt lengthens the grief reaction by promoting feelings of anger toward oneself for having committed a wrongdoing or behaved in an unacceptable manner toward a lost loved one. He or she may even feel that the negative behavior contributed to the loss.

Anticipatory grieving may shorten the grief response in individuals who are able to work through some of the feelings before the loss occurs. If the loss is sudden and unexpected, mourning may take longer than it would if individuals were able to grieve in anticipation of the loss.

Length of the grieving process is also affected by the number of recent losses experienced by an individual and whether he or she is able to complete one grieving process before another loss occurs. This is particularly true for elderly individuals who may experience numerous losses in a span of a few years, including spouse, friends, other relatives, independent functioning, home, personal possessions, and pets. Grief accumulates into a **bereavement overload,** which for some individuals is perceived as difficult or even impossible to overcome.

The process of mourning may be considered resolved when an individual is able to regain a sense of organization, redefine his or her life in the absence of the lost person or object, and pursue new interests and relationships. Disorganization and emotional pain have been experienced and tolerated. Preoccupation with the lost entity has been replaced with a renewed energy and new resolve about ways to keep the memory of the lost one alive. Most grief, however, does not permanently disappear but will reemerge from time to time in response to triggers such as anniversary dates (Sadock et al., 2015).

Maladaptive Grief Responses

Maladaptive responses to loss occur when an individual is not able to satisfactorily progress through the stages of grieving to achieve resolution. These responses usually occur when an individual becomes fixed in the denial or anger stage of the grief process. Several types of grief responses have been identified as pathological, including those that are prolonged, delayed, inhibited, or distorted. The *prolonged* response is characterized by an intense preoccupation with memories of the lost entity for *many years after the loss has occurred.* Behaviors associated with the stages of denial or anger are manifested, and disorganization of functioning and intense emotional pain related to the lost entity are evidenced.

In the *delayed* or *inhibited* response, the individual becomes fixed in the denial stage of the grieving process. The emotional pain associated with the loss is not experienced, but anxiety disorders (e.g., phobias, somatic symptom disorders) or sleeping and eating disorders (e.g., insomnia, anorexia) may be evident. The individual may remain in denial for many years until the grief response is triggered by a reminder of the loss or even by an unrelated loss.

The individual who experiences a *distorted* response is fixed in the anger stage of grieving. In the distorted response, all the normal behaviors associated with grieving, such as helplessness, hopelessness, sadness, anger, and guilt, are exaggerated out of proportion to the situation. The individual turns the anger inward on the self, is consumed with overwhelming despair, and is unable to function in normal activities of daily living. Pathological depression is a distorted grief response.

Mental Health/Mental Illness Continuum

Anxiety and grief have been described as two primary responses to stress. In Figure 2–3, both of these responses are presented on a continuum according to degree of symptom severity. Disorders as they appear in the *DSM-5* are identified at their appropriate placement along the continuum.

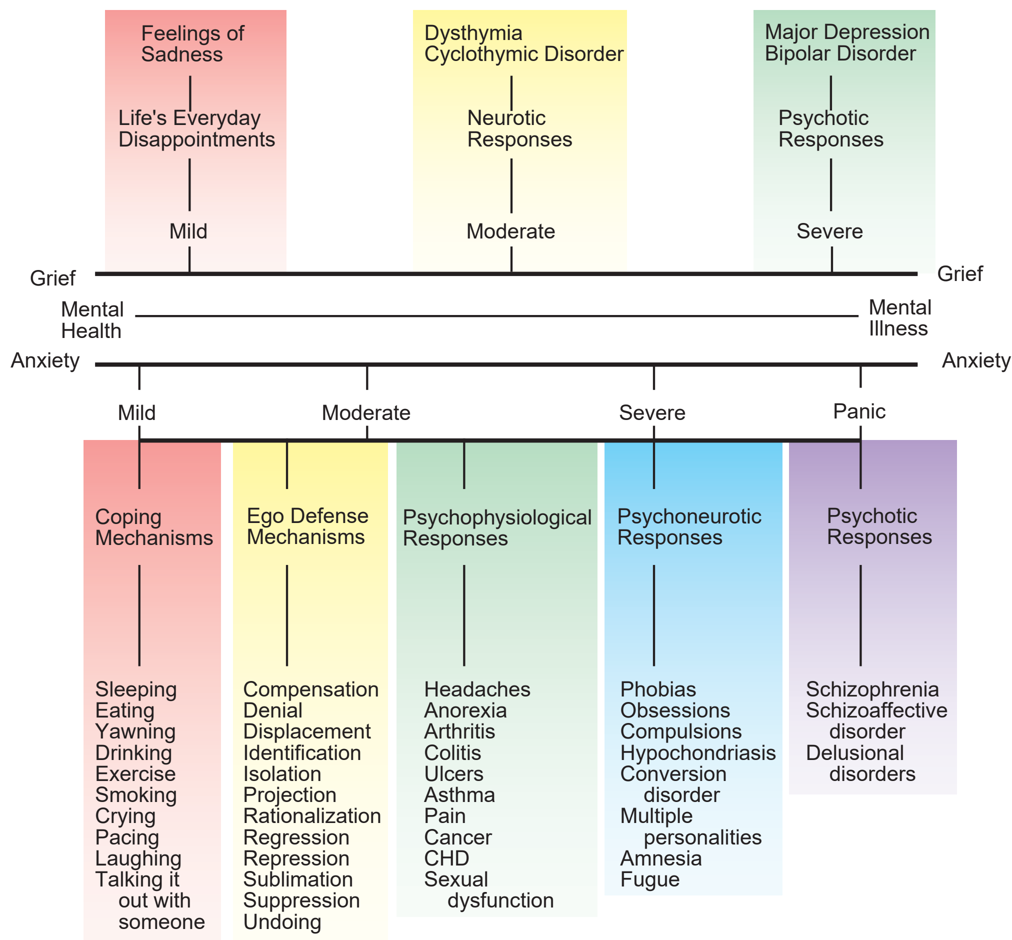

FIGURE 2–3 Conceptualization of anxiety and grief responses along the mental health/mental illness continuum.

Summary and Key Points

- Psychiatric care has its roots in ancient times, when etiology was based in superstition and ideas related to the supernatural.
- Treatments were often inhumane and included brutal beatings, starvation, or torture.
- Hippocrates associated insanity and mental illness with an irregularity in the interaction of the four body fluids (humors): blood, black bile, yellow bile, and phlegm.
- Conditions for care of the mentally ill have improved, largely because of the influence of leaders such as Benjamin Rush, Dorothea Dix, and Linda Richards, whose endeavors provided a model for more humanistic treatment.
- Maslow identified a hierarchy of needs that individuals seek to fulfill in their quest to self-actualization (one's highest potential).
- For purposes of this text, the definition of *mental health* is "the successful adaptation to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are age-appropriate and congruent with local and cultural norms."
- Most cultures label behavior as mental illness on the basis of incomprehensibility and cultural relativity.
- When observers are unable to find meaning or comprehensibility in behavior, they are likely to label that behavior as mental illness. The meaning of behaviors is determined within individual cultures. For purposes of this text, the definition of *mental illness* is viewed as "maladaptive responses to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are incongruent with the local and cultural norms, and that interfere with the individual's social, occupational, and/or physical functioning."
- Anxiety and grief have been described as two primary psychological response patterns to stress.
- Peplau defined anxiety by levels of symptom severity: mild, moderate, severe, and panic.
- Behaviors associated with levels of anxiety include coping mechanisms, ego defense mechanisms, psychophysiological responses, psychoneurotic responses, and psychotic responses.
- Grief is described as a response to loss of a valued entity. Loss is anything that is perceived as such by the individual.
- Kübler-Ross, in extensive research with terminally ill patients, identified five stages of feelings and behaviors that individuals experience in response to a real, perceived, or anticipated loss: denial, anger, bargaining, depression, and acceptance.
- Anticipatory grief is grief work that begins and sometimes ends before the loss occurs.
- Resolution is thought to occur when an individual is able to remember and accept both the positive and negative aspects associated with the lost entity.
- Grieving is thought to be maladaptive when the mourning process is prolonged, delayed or inhibited, or becomes distorted and exaggerated out of proportion to the situation. Pathological depression is considered to be a distorted reaction.

Review Questions

Self-Examination/Learning Exercise

Select the answer that is most appropriate for each of the following questions.

1. Anna's dog, Lucky, her pet for 16 years, was killed by a car 3 years ago. Since that time, Anna has lost weight, rarely leaves her home, and talks excessively about Lucky. Why would Anna's behavior be considered maladaptive?
   a. It has been more than 3 years since Lucky died.
   b. Her grief is too intense over the loss of a dog.
   c. Her grief is interfering with her functioning.
   d. Cultural norms typically do not comprehend grief over the loss of a pet.

Continued

Review Questions—cont'd

Self-Examination/Learning Exercise

2. Anna states that Lucky was her closest friend, and since his death, there is no one who could ever replace the relationship they had. According to Maslow's hierarchy of needs, which level of need is not being met?
a. Physiological needs
b. Self-esteem needs
c. Safety and security needs
d. Love and belonging needs

3. Anna's daughter notices that Anna appears to be listening to another voice when just the two of them are in a room together. When questioned, Anna admits that she hears someone telling her that she was a horrible caretaker for Lucky and did not deserve to ever have a pet. Which of the following best describes what Anna is experiencing?
a. Neurosis
b. Psychosis
c. Depression
d. Bereavement

4. Anna, who is 72 years old, is of the age when she may have experienced several losses in a short time. What is this called?
a. Bereavement overload
b. Normal mourning
c. Isolation
d. Cultural relativity

5. Anna has been grieving the death of Lucky for 3 years. She is unable to take care of her normal activities because she insists on visiting Lucky's grave daily. What is the most likely reason that Anna's daughter has put off seeking help for Anna?
a. Women are less likely than men to seek help for emotional problems.
b. Relatives often try to normalize behavior rather than label it mental illness.
c. She knows that all older people are expected to be a little depressed.
d. She is afraid that the neighbors will think her mother is "crazy."

6. Lucky's accident occurred when he got away from Anna while they were taking a walk. He ran into the street and was hit by a car. Anna cannot remember the circumstances of his death. This is an example of what defense mechanism?
a. Rationalization
b. Suppression
c. Denial
d. Repression

7. Lucky sometimes refused to obey Anna's commands to come back to her, including when he ran into the street on the day of the accident. But Anna continues to insist, "He was the very best dog. He always minded me. He always did everything I told him to do." Which defense mechanism is Anna exhibiting?
a. Sublimation
b. Compensation
c. Reaction formation
d. Undoing

8. Anna has been a widow for 20 years. Her maladaptive grief response to the loss of her dog may be attributed to which of the following? (Select all that apply.)
a. Unresolved grief over loss of her husband
b. Loss of several relatives and friends over the last few years
c. Repressed feelings of guilt over the way Lucky died
d. Inability to prepare in advance for the loss

Review Questions—cont'd

Self-Examination/Learning Exercise

9. For what reason would Anna's illness be considered a neurosis rather than a psychosis?
   a. She is unaware that her behavior is maladaptive.
   b. She exhibits inappropriate affect (emotional tone).
   c. She experiences no loss of contact with reality.
   d. She tells the nurse, "There is nothing wrong with me!"
10. Which of the following statements by Anna might suggest that she is achieving resolution of her grief over Lucky's death?
   a. "I don't cry anymore when I think about Lucky."
   b. "It's true. Lucky didn't always mind me. Sometimes he ignored my commands."
   c. "I remember how it happened now. I should have held tighter to his leash!"
   d. "I won't ever have another dog. It's just too painful to lose them."

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UNIT

Foundations for Psychiatric-Mental Health Nursing

3 Concepts of Psychobiology

CORE CONCEPTS

Genetics
Neuroendocrinology
Psychobiology
Psychoneuroimmunology
Psychopharmacology

CHAPTER OUTLINE

Objectives
Homework Assignment
The Nervous System: An Anatomical Review
Neuroendocrinology
Genetics
Psychoneuroimmunology
Psychopharmacology and the Brain
Implications for Nursing
Summary and Key Points
Review Questions

KEY TERMS

axon
cell body
circadian rhythms
dendrites
genotype
limbic system
neuron
neurotransmitter
phenotype
receptor sites
synapse

OBJECTIVES

After reading this chapter, the student will be able to:

1. Identify gross anatomical structures of the brain and describe their functions.
2. Discuss the physiology of neurotransmission in the central nervous system.
3. Describe the role of neurotransmitters in human behavior.
4. Discuss the association of endocrine functioning to the development of psychiatric disorders.
5. Describe the role of genetics in the development of psychiatric disorders.
6. Discuss the correlation of altered brain function to various psychiatric disorders.
7. Identify diagnostic procedures used to detect alteration in biological functioning that may contribute to psychiatric disorders.
8. Discuss the influence of psychological factors on the immune system.
9. Describe the biological mechanisms of psychoactive drugs at neural synapses.
10. Recognize theorized influences in the development of psychiatric disorders, including brain physiology, genetics, endocrine function, immune system, and psychosocial and environmental factors.
11. Discuss the implications of psychobiological concepts for the practice of psychiatric-mental health nursing.

HOMEWORK ASSIGNMENT

Please read the chapter and answer the following questions:

1. A dramatic reduction in which neurotransmitter is most closely associated with Alzheimer's disease?
2. Anorexia nervosa has been associated with a primary dysfunction of which structure of the brain?
3. Many psychotropic medications work by blocking the reuptake of neurotransmitters. Describe the process of *reuptake.*
4. What psychiatric disorder may be linked to chronic hypothyroidism?

In recent years, increased emphasis has been placed on the organic basis for psychiatric illness. This "neuroscientific revolution" studies the biological basis of behavior, and several mental illnesses are now considered physical disorders resulting from malfunctions and/or malformations of the brain. That some psychiatric illnesses and associated behaviors can be traced to biological factors does not imply that psychosocial and sociocultural influences are totally discounted. For example, there is evidence that *psychological* interventions have an influence on brain activity that is similar to that of psychopharmacological intervention (Flor, 2014; Furmark et al., 2002). Other evidence indicates that lifestyle choices such as marijuana use can precipitate mental illness (psychosis) in individuals with genetic vulnerability (National Institutes of Health, 2017). Ongoing research will build a better understanding of the complex interplay of neural activities within the brain and interaction with one's environment.

The systems of biology, psychology, and sociology are not mutually exclusive—they are interacting systems. This interaction is clearly indicated by the fact that individuals experience biological changes in response to environmental events. One or several of these systems may at various times explain behavioral phenomena.

This chapter focuses on the role of neurophysiological, neurochemical, genetic, and endocrine influences on psychiatric illness. An introduction to psychopharmacology is included (discussed in more detail in Chapter 4, Psychopharmacology), and various diagnostic procedures used to detect alteration in biological function that may contribute to psychiatric illness are identified. The implications for psychiatric-mental health nursing are discussed.

CORE CONCEPT

Psychobiology

The study of the biological foundations of cognitive, emotional, and behavioral processes.

The Nervous System: An Anatomical Review

The Brain

The brain has three major divisions, subdivided into six major parts:

1. Forebrain
   a. Cerebrum
   b. Diencephalon
2. Midbrain
   a. Mesencephalon
3. Hindbrain
   a. Pons
   b. Medulla
   c. Cerebellum

Each of these structures is discussed individually. A summary is presented in Table 3–1.

Cerebrum

The cerebrum consists of a right and left hemisphere and constitutes the largest part of the human brain. The two hemispheres are separated by a deep groove and connected to each other by a band of 200 million axons (nerve fibers) called the *corpus callosum*. Because

TABLE 3–1 Structure and Function of the Brain

STRUCTURE	PRIMARY FUNCTION
I. FOREBRAIN	
A. Cerebrum	Composed of two hemispheres connected by a band of nerve tissue that houses a band of 200 million axons called the *corpus callosum*. The outer layer is called the *cerebral cortex.* It is extensively folded and consists of billions of neurons. The left hemisphere appears to deal with logic and solving problems. The right hemisphere may be called the "creative" brain and is associated with affect, behavior, and spatial-perceptual functions. Each hemisphere is divided into four lobes
1. Frontal lobes	Voluntary body movement, including movements that permit speaking, thinking and judgment formation, and expression of feelings
2. Parietal lobes	Perception and interpretation of most sensory information (including touch, pain, taste, and body position)
3. Temporal lobes	Hearing, short-term memory, and sense of smell; expression of emotions through connection with limbic system
4. Occipital lobes	Visual reception and interpretation

Continued

TABLE 3–1 Structure and Function of the Brain—cont'd

STRUCTURE	PRIMARY FUNCTION
B. Diencephalon	Connects cerebrum with lower brain structures
1. Thalamus	Integrates all sensory input (except smell) on way to cortex; some involvement with emotions and mood
2. Hypothalamus	Regulates anterior and posterior lobes of pituitary gland; exerts control over actions of the autonomic nervous system; regulates appetite and temperature
3. Limbic system	Consists of medially placed cortical and subcortical structures and the fiber tracts connecting them with one another and with the hypothalamus. It is sometimes called the "emotional brain"—associated with feelings of fear and anxiety; anger and aggression; love, joy, and hope; and with sexuality and social behavior
II. MIDBRAIN	
A. Mesencephalon	Responsible for visual, auditory, and balance ("righting") reflexes
III. HINDBRAIN	
A. Pons	Regulation of respiration and skeletal muscle tone; ascending and descending tracts connect brainstem with cerebellum and cortex
B. Medulla	Pathway for all ascending and descending fiber tracts; contains vital centers that regulate heart rate, blood pressure, and respiration; reflex centers for swallowing, sneezing, coughing, and vomiting
C. Cerebellum	Regulates muscle tone and coordination and maintains posture and equilibrium

each hemisphere controls different functions, information is processed through the corpus callosum so that each hemisphere is aware of the activity of the other.

The surface of the cerebrum consists of gray matter and is called the *cerebral cortex*. The gray matter is composed of neuron cell bodies that appear gray to the eye. These cell bodies are thought to be the actual "thinking" structures of the brain. The *basal ganglia,* four subcortical nuclei of gray matter (the striatum, the pallidum, the substantia nigra, and the subthalamic nucleus), are found deep within the cerebral hemispheres. They are responsible for certain subconscious aspects of voluntary movement, such as swinging the arms when walking, gesturing while speaking, and regulating muscle tone (Scanlon & Sanders, 2015).

The cerebral cortex is identified by numerous folds called *gyri* and deep grooves between the folds called *sulci*. This extensive folding extends the surface area of the cerebral cortex to permit the presence of millions more neurons than could not be accommodated without the folds (as is the case in the brains of some animals, such as dogs and cats). Each hemisphere of the cerebral cortex is divided into the frontal lobe, parietal lobe, temporal lobe, and occipital lobe. These lobes, which are named for the overlying bones in the cranium, are identified in Figure 3–1.

The Frontal Lobes

Voluntary body movement is controlled by impulses through the frontal lobes. The right frontal lobe controls motor activity on the left side of the body, and the left frontal lobe controls motor activity on the right side of the body. The frontal lobe may also play a role in the emotional experience, as evidenced by changes in mood and character after damage to this area. The prefrontal cortex (the front part of the frontal lobe) plays an essential role in the regulation and adaptation of our emotions to new situations and may have implications for moral and spiritual responses (Sadock, Sadock, & Ruiz, 2015). Neuroimaging tests suggest there may be decreased activity in the frontal lobes of people with schizophrenia (Butler et al., 2012).

The Parietal Lobes

The parietal lobes manage somatosensory input, including touch, pain, pressure, taste, temperature, perception of joint and body position, and visceral sensations. The parietal lobes also contain association fibers linked to the primary sensory areas through which interpretation of sensory-perceptual information is made. Language interpretation is associated with the left hemisphere of the parietal lobe.

The Temporal Lobes

The upper anterior temporal lobe is concerned with auditory functions, and the lower part is dedicated to short-term memory. The sense of smell has a connection to the temporal lobes, as the impulses carried by the olfactory nerves end in this area of the brain. The temporal lobes also play a role in the expression of