

Chapter 1

Introduction to Health Psychology



Learning Objectives

After studying this chapter, students will have the knowledge and skills to be able to:

1. Define health psychology as a field of scientific investigation within psychology and discuss its applications.
2. Contrast the biomedical and biopsychosocial models of health and explain varying outcomes from each perspective.
3. Explain systems theory and its relationship to the biopsychosocial approach to health.
4. Compare perspectives on health in ancient times to the biomedical approach and to the biopsychosocial approach to health.
5. Define health and give examples of the physical, emotional, social, and cultural dimensions of health.
6. Explain three major factors affecting health characteristics of everyone.

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Introduction

As a college student, you will have little difficulty relating to the field of **health psychology**, because you already know about the importance of **health** and ways to preserve and improve your own health. In addition, you have experienced both illness and injury, so you will appreciate and recognize many of the concepts and examples used in this textbook. You are also aware that biology is not always responsible for your physical ailments. For example, most college students experience headaches and stomachaches. These rarely indicate cancer or other serious biological problems. Most of the time they are consequences of emotional reactions or stress, which is psychological, or problems with relationships, which are social and cultural.

Health psychology, a division within the American Psychological Association (APA), is a specialty applying psychological principles to the scientific study of health, illness, and health-related behaviors. It is empirically based, which means its vast and growing research literature is the outcome of scientific methods. It is specifically aimed toward a broader understanding of health, illness, injury, recovery, and the impact of each on human lives. Knowledge developed in this field includes psychological, social, and cultural influences on diagnosis, treatment, and rehabilitation of ill and injured people. Health psychologists are also interested in the prevention of illness and injury and in health policy formation (American Psychological Association, 2008).

Health psychology formally began in the 1970s when the behavioral sciences began to contribute more to the understanding of health problems (Schwartz & Weiss, 1977). Medicine had long included psychiatry, and clinical psychology was a specialty within general psychology. **Clinical psychologists** are mental health professionals with backgrounds in counseling and health psychology. Health psychology grew in relation to behavioral med-

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health Soundness of body and mind: a state of physical, emotional, and social well-being.

clinical psychologist A mental health professional with a background in counseling and health psychology.

icine as physicians began to include patient education in their medical practices. **Behavioral health** is a subfield within the field of behavioral medicine; it emphasizes the maintenance of health, including prevention of both physical and emotional illness (Matarazzo, 1980).

The origins of health psychology rest in a combination of biology, medicine, physiology, philosophy, and social science. Health psychology interfaces with the fields of epidemiology and public health and contributes to improvements in health by increasing knowledge about how health can best be achieved. The work of clinical health psychologists sometimes intersects with the fields of nursing, social work, exercise science, and other disciplines aimed toward understanding and changing health-related behavior. The fields of medical sociology and anthropology add to the subject by exploring the impact of social and cultural factors on health and illness. Health psychology is a science as well as a profession. It is rooted in clinical psychology, social psychology, and psychophysiology. Clinical health psychology has specific educational, training, and credentialing requirements (Papas, Belar, & Rozensky, 2004).

Those working in the field of health psychology recognize that each individual bears some responsibility for his or her health; the government and communities also have social responsibilities. As a science, the field includes health behavior research that focuses on physical, social, and emotional issues. For example, many psychologists focus on understanding how behavior modification can be helpful in changing problem behaviors such as alcohol abuse, drug addictions, and overeating. They recognize that emotions are linked closely to health and in turn, that physical health affects emotional states. One simple example is the way strong emotions, such as anger or fear, cause increases in heart rates and blood pressure. **Cognition**, or what people believe, and **emotion**, or how they feel about events and ideas, also influence health (Baum, Perry, & Tarbell, 2004).

Health and healing are also affected by social factors, including ethnicity and socioeconomic conditions such as poverty. Other influences on health are cultural beliefs, including religious and spiritual convictions. Human behavior has a tremendous impact on the development and progression of diseases, particularly those linked to lifestyle choices such as

behavioral health A subfield of behavioral medicine emphasizing the maintenance of health including prevention of both physical and emotional illnesses. Behavioral medicine combines work in the biomedical and behavioral sciences.

cognition The act or process of knowing, and products of the process such as problem solving. In health psychology, cognitions affect perception of stressors. Cognitive restructuring refers to methods of changing ones thinking about a stressor.

emotion Affective consciousness including feelings such as joy, sadness, fear, and hate. In health psychology, emotional support from others is helpful in recovery from illness and injury, and emotion-focused coping is a way to manage stress.

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smoking, overeating, alcohol abuse, and failing to exercise. Health psychologists research hundreds of topics and clinicians work with patients in hospital and clinical setting to change lifestyles. Some examples of clinical work are helping patients manage the distress of illness and teaching them techniques to alter their physiological responses to stressors. Other psychologists specialize in pain management, including the idea that taking a preemptive approach or preventing pain is more effective than dealing with it after the fact (Turk, 2002). Patients, family members, and even friends are included in efforts to manage the stress of medical treatments. Through scientific research, health psychologists even devised ways to prevent the conditioned vomiting associated with chemotherapy treatments for cancer (Redd, DuHamel, Vickberg, et al., 2001). Health psychologists also work in public health, patient education, nursing, and diet therapy.

The APA established the division of health psychology “to advance contributions of psychology to the understanding of health and illness through basic and clinical research, education, and service activities, and encourage the integration of biomedical information about health and illness with current psychological knowledge” (American Psychological Association, 2008). The division publishes a bimonthly scholarly journal, *Health Psychology*, and a newsletter, *The Health Psychologist*. In addition to college courses in the United States, health psychology is taught at colleges and universities in Canada, Europe, Australia, New Zealand, and Asia (Jansen & Weinman, 1991; Morrow, Hankivsky, & Varcoe, 2007). An International Society of Health Psychology was formed in 1996. A major thrust of work in health psychology throughout the world is interdisciplinary collaboration (Belar & McIntyre, 2004).

There are more than 20 journals focusing on health psychology and behavioral medicine, including the *British Journal of Health Psychology*, and the journals of *Behavioral Medicine* and *Psychosomatic Medicine*. Health psychology is a broad field, and psychologists may specialize in a variety of areas including pediatrics, pain management, cardiovascular diseases, cancer, or diabetes patient care, addictions, and disease prevention.

Appropriate education and training programs are paramount to becoming a health psychologist (McDaniel, Belar, Schroeder, Hargrove, & Freeman, (2002). Among suggested areas of competence are knowledge of the biological, cognitive-affective, social, and developmental bases of health and specific diseases; the necessary knowledge and skills to assess and intervene in illness and injury; and an understanding of ethical, legal, policy, professional, and multicultural issues associated with practice specific to patients’ problems (Belar, Brown, Hersch, et al., 2001).

The Study of Human Health

Two Scientific Viewpoints

You may wonder how using a science-based perspective affects the study of a topic. Perspectives are important because they influence explanations that guide thinking, research, and problem solving in specific fields. There are at least two contrasting viewpoints about

health. One approach, with which you are more familiar, is called the **biomedical model of health**. This perspective includes the idea that illness and injury are biological problems with biomedical solutions. People who hold this view assume that when someone is ill or injured only the physical self is affected and must be treated.

A second viewpoint, and the model used in this course, is known as the **biopsychosocial model of health**. This model assumes that illness and injury have biological, psychological, and sociocultural components. From this perspective, diagnosis and treatment decisions should take into account all three aspects.

The biomedical model is most characteristic of medicine as it is practiced in the United States. Great advances are made using this model. It is most successful against infectious agents, but less successful against lifestyle-related diseases such as heart disease and some cancers. The biomedical view is more mechanistic or mechanical than the biopsychosocial model and is based in molecular biology. One limitation is that it ignores psychological and sociocultural factors that are important in diagnosis, treatment, and recovery. Clearly, health is related to attitudes, emotions, and personality characteristics, as well as to exposure to viruses or bacteria.

The biopsychosocial model of health represents the guiding perspective used in health psychology courses and professions. This broader view allows analyses, diagnoses, and treatments of illnesses and injuries to incorporate multiple factors that might influence patients and their recovery. Using this wider viewpoint about patients' health problems generally improves healing. For example, the health psychology approach includes patients' families and friends as sources of social support important to patient progress. The cultures in which people grew up and in which they now live also affect actions about health and patients' emotional states and motivations to heal.

One major advantage of the biopsychosocial approach used in health psychology is that it searches for multiple causes and multiple solutions to health problems and appreciates the complexity of health, disease, injury, and healing. This approach encourages students to expand their thinking away from the more limited biological and physiological perspectives. The biopsychosocial approach means that we will consider more than one explanation

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when discussing causes of health problems in this textbook. We will look for multiple contributing factors to explain injury and illness. In a similar manner, we will investigate multiple solutions to illness and injury. Causes of health problems, as well as their resolution, are located in biological, psychological, and sociocultural contexts.

The Relationship of Emotional and Physical Health

Emotions, which are basically psychological, can cause changes in the body's biological system. This is most easily seen in the study of the effects of stress on health. For example, people die of cardiac arrest when facing fearful situations. Severe jealousy and anger can contribute to strokes. Asthma and colitis attacks are more likely when people are under stress. Other examples of mind-body connections are fainting or psychogenic shock, developing fever or high body temperatures in response to social situations, and hyperventilating when stressed. When someone smokes a cigarette near you, you are also smoking. Your biological, emotional, and social states are all affected. This also happens when someone talks on a cell phone near you at a concert or cuts in front of you on the freeway. Stress causes physical changes in your body.

Thoughts, emotions, and bodily functions affect the brain, nervous system, endocrine, and immune systems (Baum, Perry, & Tarbell, 2004). The reverse is also true. Physical changes are accompanied by emotional reactions. Growth is one example. Due to beliefs based in the culture, most young males are pleased when their feet grow bigger, but most young females are not. Many adults are frustrated when they weigh themselves because they usually do not want to gain weight. On the other hand, football-playing high school students are delighted to step on a scale and discover a weight gain but wrestlers would not be happy. Reactions to physical changes vary from person to person and reflect individual and social factors.

Origins of the Biopsychosocial Approach to Health

For this course and textbook, the concept of health is defined in the broadest possible terms. Health includes biological, psychological, and sociocultural components. This inclusive theoretical approach is basic to health psychology. The fundamental principle is that health both reflects and generates psychological and sociocultural issues along with the biological. By examining the history of any illness or injury, we can usually discover the presence of all three factors. All three also affect recovery of those who are ill or injured. The biopsychosocial approach used in health psychology can be applied before an illness or injury occurs for preventive purposes, during recovery efforts, and to any aftereffects in the lives of patients and their loved ones.

Systems Theory

The biopsychosocial approach is based in what is known as a **systems theory** approach (Engel, 1977; Schwartz, 1982). Human events, such as injury and illness, exist within several interconnected systems. Each system influences the others. For example, most humans are brought up in a network of relationships with parents, caregivers, teachers, babysitters, neighborhood and school friends, and even strangers. The larger social and cultural system is layered on top of what we learn through individual and group social relationships. The media, including books, television programs, DVDs, movies, music, newspapers, magazines, and blogs are other social and cultural influences on human health and development. Systems range from the general global culture to more narrow national, state, and community cultures in which families and individuals reside. There is constant interchange or feedback among system components. This interchange means that an entire system is more than just a collection or a sum of each part. A change in one part of the system changes other parts of the system. Systems theory includes the idea that medical providers, patients, family members, and friends need to consider the total situation and think about many different factors when dealing with illness or injury. Engel (1977) emphasized this when he wrote that patients should be viewed in their social contexts and physicians should use patients' social support systems to aid in treatment.

One Example of Biopsychosocial Analysis

Here is one example of the interplay of biopsychosocial factors and the use of the systems approach. Imagine your 70-year-old grandmother falls and breaks her hip. The origin of the break lies in biological, psychological, and sociocultural causes, and healing and preventing a repetition of the injury improves when using a systems perspective. Your grandmother's bones are weak due to osteoporosis, reflecting the lack of calcium in her diet over many years. She probably stopped drinking milk because she thought it would make her gain weight. Most women in this culture want to avoid obesity at all costs. Aging also reflects biological changes due to social and cultural effects. Her lack of doing weight-bearing or bone-strengthening exercises throughout her life reflects the outdated sociocultural idea that women should not sweat because it is unladylike. Further, part of aging is often being socially isolated and lonely. Perhaps your grandmother fell while eagerly rushing to the phone

systems theory An approach to human events, such as injury and illness, including the idea that events occur and exist within several interconnected systems. Each system influences the others. Systems theory in health psychology includes the idea that medical providers, patients, family members, and friends need to consider the total situation and think about many different factors when dealing with an illness or injury.

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thinking you were calling. The causes of her fall and injury are biological, psychological, and sociocultural in origin.

Her recovery also depends on biological, psychological, and sociocultural elements. She broke the femur. This may appear to be only a biological problem that can be solved with medical care, including setting and splinting the break. A second biological issue is pain control. The femur is a big bone with many nerve endings. She will be in great pain until sedated for surgery and splinting. Later the bone will ache. After the bone knits, your grandmother will need rehabilitation to ensure that she will walk again and avoid being limited to a wheelchair for the rest of her life. Physical therapists will supervise her rehabilitation and encourage her to make every effort to recoup her previous level of fitness. She will also need care and encouragement from family and friends. Following treatment, your grandmother may be discouraged about her future life, possible disability, and she probably fears falling again and breaking another bone. She may even become depressed and feel helpless and hopeless. These feelings or emotions are psychological, but they influence her struggle to walk again and her ability to maintain her health. Her recovery depends also on her social relationships. Recovery is more likely when friends and family members help by bringing meals, doing household chores, and transporting her to the doctor and rehabilitation facility. Research indicates that social support from family members and friends encourages healing (Baron, Cutrona, Hicklin, Russel, & Lubaroff, 1990).

Historical Perspectives on Health and Healing

Perceptions of Health and Healing

Human beliefs about the causes of illness and injury vary from age to age. In Neolithic times (ca. 8000–9000 BC), illness and injury were probably common and attributed to natural events or to some higher powers that also controlled climate changes and other events in nature. Evil forces, including curses, were often blamed for sickness and accidents. Incantations, songs, sacred objects, and healing ceremonies were developed to soothe evil spirits and cure patients. A Greek healer, Hippocrates (ca. 460–360 BC), is called the father of medicine, because he wrote recommendations for health and healing based on his own experiences and work with other people (Hippocrates, trans. 1952). Galen (ca. 200–130 BC), a Greek physician, referred to disease-causing organisms (Galen, trans. 1952). Today, ideas about causes of illnesses are somewhat similar. We use the term **pathogens** to refer to bacteria, viruses, and other infectious agents. In later times, illness and injury were also viewed as consequences of evil acts for which people must atone. Max Weber (1864–1920) suggested that part of the Protestant ethic in the United States was the idea that being wealthy and healthy meant you had earned God's good graces (Weber, trans. 1930). Even today there is a strong

pathogen microorganism capable of producing illness or disease.

relationship between wealth and health, because education and wealth provide resources for medical treatment.

Other cultures viewed health and healing differently. Some early Christians prayed for illness and suffering in order to be closer to God. In early Christian times, many people also believed that prayer and good acts would result in healing. This may sound very much like “the power of positive thinking” that we hear about today. This view is partially reflected when sick or injured people are told they must rest and relax in order to get well. Durkheim (1858–1917) studied suicide rates and demonstrated how the presence or absence of close relationships to other people and ties to one’s culture affected the probability of suicide (1897/1997). Sigmund Freud (1856–1939) contributed the idea that physical symptoms such as blindness could result from emotional problems and harmful social relationships (Freud, trans. 1952). Many physicians now acknowledge that emotional stress affects one’s physical health and that recovery depends in part on the social support given to patients by family and friends. An area of special interest to some researchers and physicians is how the quality of the interaction between doctors and patients can promote healing (Delbanco, 1993).

The Biomedical Approach to Health

For much of the past hundred years in the United States, health and healing were narrowly attributed to medical care and biological solutions. This perspective relies upon the basic sciences of biochemistry and anatomy to diagnose and treat health problems. Physiology is viewed as the most important cause for illness and injury. A biomedical viewpoint tends to ignore the influence of patients’ minds or mental states, their social relationships, and their cultural backgrounds.

Rene Descartes (1596–1650), a French philosopher and mathematician, is generally considered one of the first to write in terms of the body being apart from or separated from the influence of the mind (Descartes, trans. 1952). He believed physicians should concentrate on physical aspects of illness and injury. Some physicians and medical schools continue to emphasize the biomedical approach to healing rather than taking a more holistic approach such as the biopsychosocial model. The biomedical approach is a powerful influence on new physicians and many doctors still accept this narrow view of health and healing.

One limitation of using the biomedical model exclusively is the assumption that there is only one cause or contributing factor for any health problem. In most cases it is assumed that a correct diagnosis as to cause will lead directly to a specific biological solution, such as prescribing an antibiotic, surgically removing a growth, or putting a splint or cast on an injured arm. Relying on one cause and one cure often means other aspects of problems are

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Think about it!

Explain this!

1. College graduates are three times more likely to describe their health as excellent than those who had not graduated from high school.
2. People with family incomes above \$75,000 are twice as likely to describe their health as excellent than those with incomes of less than \$20,000.
3. Of the people whose ages fall between 18 and 44, 10 out of every 1,000 describe themselves as limited by mental illness.
4. Of the people whose ages fall between 18 and 44, 15 out of every 1,000 describe themselves as limited by arthritis or other musculoskeletal problems.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

ignored, such as in cases of child abuse or syndromes with multiple symptoms. Patients' problems often reappear, indicating there was neither a single medical cause nor just one cure.

Medical treatments also can damage patients' health. **Iatrogenic illnesses** are illnesses caused by diagnostic procedures or treatments. For example, Cushing's syndrome is the result of medical treatments using excessive amounts of corticosteroids. Patients being treated in rehabilitation centers sometimes experience burns due to excessive heat applied to the skin. Limbs or joints may be reinjured because of overly vigorous exercise (overuse injuries). **Nosocomial infections** are those specifically acquired during hospital stays.

After practicing medicine for a few years, many physicians begin to appreciate the fact that healing and good health are not just the result of medical treatments such as surgery or antibiotics. It becomes increasingly clear that patients' psychological states, and the attention and care provided by family and friends, also influence outcomes. Many medical care providers eventually recognize the connections among patients' bodies, their minds, and their social relationships. Psychological factors and social relationships play an important role in health and healing. This is what is meant by the connection of the body, the mind, and the sociocultural. Each is a system connected to other systems. Health, illness, injury, and death are linked to emotional and sociocultural aspects of patients' lives, not just to biological aspects.

iatrogenic illness a condition occurring as a result of medical diagnostic procedures, medical treatments, or exposure while in a medical facility

nosocomial infection infection acquired during a hospital stay.

Benefits of Using the Biopsychosocial Model of Health

In addition to hours of credit towards a degree, students taking this course will gain knowledge and insight into their own health and the health of others. At least two factors make taking a course in health psychology more worthwhile than ever before. One factor is that the most common causes of illness, injury, and deaths have changed. Earlier in history the major causes of death were infectious diseases that were difficult to control. Two examples are plagues and influenza epidemics. Today, the major causes of illness and premature death in industrialized countries are chronic diseases related to lifestyle choices or human behavior. A second major change is the cost of health care. At this time the costs of medical care are rising rapidly and increasing much faster than the rate of inflation. Millions of adults and children have no medical insurance in the United States. To add to these issues, life expectancy is greater than ever before. This is due to the control of infections, fewer infant deaths, and advances in medical treatment.

Health psychology emphasizes the beneficial role played by healthy lifestyles and positive mental attitudes in the prevention and treatment of illness and injury. Students will learn how to choose better options for exercise, eating patterns, and managing stress. Students will also learn theories of behavior change and how to help themselves and others develop healthy lifestyles and discontinue unhealthy behaviors. Three chapters are about the effects of psychological stress on illness and injury. Students will come to understand that recovery from illness and injury is more likely when psychological and sociocultural factors are taken into account along with the biological. Our health depends on biological, psychological, and sociocultural factors (see **Figure 1.1**).

Figure 1.1
Our health depends on biological, psychological, and sociocultural factors.



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This course also will improve students' communication skills about health issues. People who are knowledgeable about health care issues are more effective in discussions with medical providers, family members, friends, and coworkers. For example, students will understand how to ask more precise questions and give more accurate and useful answers to medical care providers. Adherence to health-care recommendations may also increase, because students will participate more actively in their own medical care and the medical care of those important to them. By taking a broader view of health, students will be more effective in helping significant others recover from injury or illness. The knowledge and skills covered in this course will empower students and help them develop greater self-confidence about their ability to affect their own health and the health of others. Students also will learn to think critically about health and health-related recommendations.

Important Concepts in Health Psychology

When taking a college course, it is important to understand the precise meaning of key words and concepts. Agreement on meanings of commonly used terms ensures students will understand the textbook, the professor, and each other when talking or writing about topics in this course.

Health

In this class, health is defined broadly and refers to physical, psychological, and sociocultural well-being. Health psychology takes its perspective from the World Health Organization (WHO). In 1948, WHO stated, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political beliefs, economic or social condition (p. 1)."

You may be in good health physically, but in poor health psychologically or socially. The reverse is also possible. For example, if you are an international student who has just arrived in the United States, you are probably physically healthy, but psychologically and socially lonely. You miss friends and family members you left to come to this campus. Socially you are feeling isolated. You may not know anyone on campus and are reluctant or shy about introducing yourself to others because you are not sure about customs or the right way to do things. At the same time, you are experiencing what is called **culture shock**. Familiar sights, smells, and sounds are missing. Perhaps you came from a rural area and now you are

culture shock emotional upheaval and even illness due to significant changes in living conditions. It particularly occurs when people experience a drastic change in their surroundings due to immigration or forced migration to new geographical areas. Another example is moving from a rural area to an urban area.

living in a city. The area seems very noisy and the food tastes strange. Many of the foods you really like are not offered in the campus cafeteria. You must communicate with and learn from teachers speaking a language different from the one you first learned as a child. You studied English in school and practiced speaking it, but everyone here talks very fast and many accents are difficult to understand.

Culture shock occurs when New Yorkers immigrate to Botswana and when Botswanians immigrate to New York. Culture shock happens to students from the United States attending colleges in Asia, Africa, South America, Australia, or Europe. Some international students return to their homes because culture shock is too hurtful and distressing. Some become physically ill due to their efforts to work and study in a different culture.

Evaluating Your Physical Health

One way to evaluate your own health at any given time is to locate yourself on a **continuum**. Think of a continuum as a line with extremes of some concept at either end. There can be many variations between the extremes or ends of a continuum. We use continuums to assess muscle strength (strong to weak) or elasticity (flexible to stiff). Some health books also include intellectual health and spiritual health. Find yourself on each continuum after reading the discussion below.

How do you feel right now? Are you healthy or sick? Do you have lots of energy or are you tired most of the time? Are you in pain or are you free of pain? Would you describe yourself as ill or well? Maybe you have the flu or your back is hurting and you can hardly walk. Some people can be sick and not know it, because there are no outward signs of physical problems. For example, high blood pressure is a risk factor for stroke. Unfortunately, many people with high blood pressure do not know they have it, because there are no outward signs. The way people find out about hypertension is by having someone measure their blood pressure. Find your current location on the continuum for **physical health** in **Figure 1.2**.

Evaluating Your Psychological Health

Do you like the way your life is going? Are you happy and content, or sad and dissatisfied with your life? Are you worried about something? Are you afraid or anxious? Do you think that someone is out to get you? Are you so sad you often lie down and stare at the ceiling of your bedroom? Do you cry a lot? How healthy are you from a psychological perspective? Look at **Figure 1.3** and decide the current state of your **psychological health**.

continuum illustrative figure such as a line with two extreme condition of some phenomenon located at either end of the line.

physical health positive physical functioning

psychological health positive emotional functioning

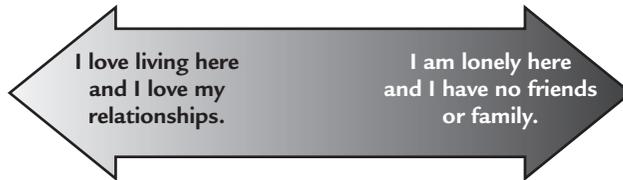
Figure 1.2
How healthy are you physically? Where would you put your physical health at this moment?



Figure 1.3
Where would you put your emotional health at this time?



Figure 1.4
How healthy are you socially? How comfortable are you in this culture? Find your location on the continuum for social and cultural health.



Evaluating Your Social and Cultural Health

Do you have many satisfactory relationships? Are there people you can count on when you want to talk about something important to you? Do you have positive relationships with family members? Are there good friends you can call upon when you need help? Do you feel relaxed most of the time, or tense? Do you like where you live, your work place, your school campus, and community or do you feel alienated from those around you? Look at **Figure 1.4** and locate yourself on the continuum of **social and cultural health**.

social and cultural health normal functioning within a culture including having friends and family members for interaction and social support.

Outcomes of Your Beliefs about Health

Health psychology is a behavioral science. Today most of the leading causes of premature death are due to behaviors such as smoking, overeating, lack of exercise, abusing alcohol or other substances, and participating in unsafe or reckless behaviors. These behaviors reflect your beliefs about health. By using a continuum, you clarified the state of your physical, emotional, and sociocultural health. Now ask yourself about the behavioral factors affecting your health.

First, think about behaviors directly connected to health and safety. Do you exercise, eat healthily, get adequate sleep, use sunscreen, and wear a seat belt? When you play sports, do you wear protective gear? Do you smoke tobacco or abuse alcohol or other substances? Do you take other risks with your physical health? What about your emotional health? Do you feel depressed, angry, frustrated, or guilty or are you generally happy, calm, friendly, and satisfied with your life? Do you have good relationships with family and friends, or are you isolated from others? Do you argue with everyone you meet? Do you think people are out to take advantage of you? Do you feel alienated from most of the people around you? Actions, feelings, and attitudes are behavioral and are measures of physical, mental, and social health. You might think of the three kinds of health as conditions or as processes, because health is both a condition (like a snapshot) and an ongoing process (like a video). Health is a process requiring neverending effort. We work all our lives to stay healthy and to avoid physical, emotional, and relational problems.

Illness

Arriving at a suitable definition of illness is difficult. There are scientific descriptions and medical diagnoses for specific diseases. Being ill means you are not in good health. Most of us tolerate some unwellness, such as spring allergies, but do not say we are ill enough to seek medical care. Other people go to school or work when they are very ill. They feel terrible and suffer from severe colds or the flu. These acute illnesses are usually short term and treatable. Chronic illnesses such as heart disease and cancer may go on silently for long periods of time and endure until we die.

Whether or not we are ill is in part subject to our personal perceptions about illness and may reflect how we are feeling at the time. Sometimes illness cannot be measured objectively. For example, have you ever felt terrible, but you did not have an elevated body temperature or any other symptoms? Other people cough, sneeze, and experience watering of their eyes, but they insist they feel fine. Sometimes people ignore symptoms or signs of illness when there is something they really want to do, such as participate in athletic competitions, school plays, band performances, or go on important dates such as proms. Emotional states and social relationships play an important role in how illnesses are perceived as well as how difficult or easy recovery is for us.

The words *illness* and *sickness* are often used in a variety of ways in our culture. Have you ever said to someone, “You make me sick”? Did you mean the person made you physically

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ill, or were you talking about emotional or relational illness? When watching a news report on television, have you ever said, “That makes me sick”? Sometimes we talk about being sick at heart, meaning our emotional health is disturbed by something we saw or heard. We might also say we are heartsick when a romance ends.

Health psychology sometimes makes a distinction between **illness behaviors** and actual illness. Recent research indicates that fear, anxiety, and depression may be connected to rising blood pressure levels, with stroke and death as a result, while in other cases neuroticism and negative affect predict heart attacks (Smith & Ruiz, 2004, pp. 168–169). Sickness Impact Profile (SIP) measures ambulation, mobility, social interaction, alertness, emotional behaviors, communication, sleeping and rest, eating, work, home management, recreation, and pastimes (Bergner, Bobbit, Carter & Gibson, 1981). Other checklists assess psychosocial adjustment to illness.

Pregnancy

Many people still treat pregnant women as if expecting a baby is an illness. Being pregnant is not the same thing as being ill, although some pregnant women experience nausea and vomiting in the early months. In the later stages of pregnancy, doctors advise women to avoid activities that might result in falls or cause body heat to rise to very high levels. Either situation could endanger the pregnancy. It is true that pregnant women should be aware of what they eat or drink, because everything affects the fetus.

People with Disabilities

Having a disability is not the same thing as having an illness. (Later chapters discuss chronic illness and disabilities.) How would you assess the health of a person you think has different abilities than you do? Some people experience limitations due to the effects of chronic illnesses such as cardiovascular, pulmonary, or metabolic diseases. People with immune system limitations due to lupus, AIDS/HIV, or cancer treatments may be socially restricted to avoid being infected by others. Many people live with anemia, clotting disorders, organ transplants, and fibromyalgia. **Orthopedic disabilities** include arthritis, lower back pain, osteoporosis, and amputations, especially of the lower limbs. **Neuromuscular disorders** include strokes and other kinds of brain injury, spinal cord injuries, epilepsy, muscular dystrophy,

illness behavior Actions taken by people who believe they are ill to discover causes and solutions to their situation.

orthopedic disabilities Physical limitations due to damage to the bones, joints, muscles, ligaments, and tendons.

neuromuscular disorder illness or injury relating to nerves and muscles.

multiple sclerosis, polio, cerebral palsy, and Parkinson's disease. There are also persons with cognitive, psychological, and sensory disabilities. These include mental illness, limited hearing, visual impairment, Alzheimer's disease, and mental retardation. Most persons with physical or mental disabilities are physically healthy, but face some limitations. For example, people who experience heart attacks may be troubled with chest pain or angina when they exercise in very hot or cold weather. Have you ever met persons who appear to be limited socially? There are persons who are unable to tolerate or relate to other people. Perhaps as a result of childhood experiences, traumatic experiences, or an autism-spectrum disorder, or perhaps with no obvious cause.

Injuries

Being injured is different from being ill. **Injury** is usually viewed as a temporary condition. Injuries include damage to bones, muscles, or other soft tissues, such as tendons and ligaments; our skin can be injured by bruising, cuts, and burns. Insect and animal bites may result in serious illnesses, such as anaphylactic shock or infections such as rabies or Lyme disease. Injuries occur during car wrecks, sports events, and fights. People who recover from injuries often report they are as "good as new," although they frequently experience lingering side effects.

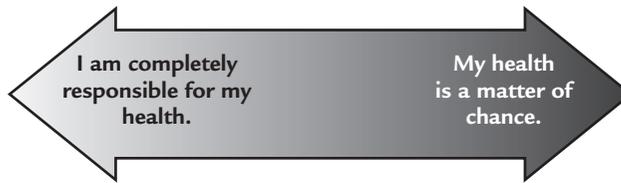
Responsibility for Health

Another important question in health psychology is how much responsibility individuals bear for their health. Some people assume that their health is out of their control and decide to let nature take its course. At the other end of the spectrum are those who work constantly to improve their physical, emotional, and social-relational well-being. They eat healthily and exercise regularly. If they are depressed, they seek therapeutic care. If they are having trouble with relationships, they get counseling. These are people who believe their behavior has a major effect on their health and that they can offset genetic limitations by following healthy lifestyles. Look at the continuum in **Figure 1.5** and decide how accountable you believe you are for your health.

Very few people would put themselves at either extreme on this continuum, because most people think they are born with some limitations. Nevertheless, most people take some responsibility for their health. They wash their hands, brush their teeth, and try to get adequate rest to avoid illness. They drive carefully and warm up before exercise to prevent injuries. Others believe they have little effect on their health and are careless in much of what they do. Some people believe that national, state, and local governments will protect their health and safety. They expect the Food and Drug Administration (FDA) to protect them from

injury damage to some component of the body

Figure 1.5
How responsible do you think you are for your health?



harmful food and medications. They believe the Environmental Protection Agency (EPA) will keep the air clean and stop global warming. They may also believe the Occupational Safety and Health Agency (OSHA) will protect them at work. It is true these agencies exist for our protection, but they are often underfunded and cannot do everything or be everywhere. A great deal about our health and safety is up to us.

Outcomes of Beliefs about Responsibility for Health

Your beliefs about your responsibility for your health are the most important of all. If your behavior matches your beliefs, then you are consistent. For example, Careless Caroline does not believe she has any control over illness or injury so she does whatever she feels like doing. She eats what she wants to eat, does not brush her teeth, avoids making friends, has temper tantrums when she does not get what she wants, drives recklessly, avoids exercise, and never gets medical checkups. She smokes, abuses alcohol, and uses a variety of illegal drugs. When she has sexual relationships with men she does not insist that her partner wear a condom. There is consistency between her behavior and her attitudes. Statistically she will die prematurely, probably in a car accident or as a result of a crime.

On the other end of the continuum is Healthy Hannah, who exercises aerobically 30 minutes a day. She does strength training and flexibility exercises. Hannah eats a balanced diet and maintains a normal weight. She attends college and studies often, but takes time to relax with friends. She gets adequate sleep, drives carefully, wears a seatbelt, does not smoke, and seldom drinks alcoholic beverages. Hannah sees her physician for checkups and her dentist every 6 months. She also values her family and spends time with them.

Most of us are somewhere in between Healthy Hannah and Careless Caroline. Find yourself on the continuum in Figure 1.5 and think about how much responsibility you take for your health. Inventory your current lifestyle including sleep, eating, exercise, management of stress, and use of substances. Wearing a seat belt, using sunblock, and taking other kinds of precautions are important behaviors. Maintaining good social relationships is part of good health practices too. All behaviors, both healthy and unhealthy, become even more important if we are injured or become ill. The healthier we are physically, emotionally, and socially, the more likely we are to recover from illness and injury, regardless of the cause.

Factors Affecting Health

Several factors affect health. Think about which you believe to be the most important factors in your case. Do you believe that your genetic background is the most important factor affecting your health?

Genetic Background

Genes are basic units of biological or family inheritance. In biology, you probably learned that some of your characteristics such as eye and skin color reflect genetic heritage. Scientists do not completely understand all the factors affected by genetics, but people at risk of some genetic disorders can be counseled about risks. Scientists are trying to discover how genes affect health. For example, two genes are believed to be related to breast cancer, but not everyone who develops breast cancer carries those genes, and many people with those genes never develop breast cancer. Some health-related factors are genetic, but other factors are probably more important. Genes can also be altered by exposure to radiation, drugs, viruses, and other factors. Eventually, nanotechnology, biotechnology, and information technology may result in very personalized medicine, but at this time it is most helpful to think about our behavior as the major causes of illness and injury.

Environmental Factors during Childhood

Environments, both physical and social, affect health. This includes everything from the air we breathe to the thousands of social encounters and relationships we experience during our lives. Our health is also influenced by government policies affecting education, occupation, insurance, and access to health care. Our own health is affected by the health of our biological parents at the time of our conception. After being conceived, fetuses live about 9 months in their mother's uterus or womb. Their blood is interchanged with their mother's, so infants take in the same substances ingested by the mother. We know that smoking, alcohol, other substances, and radiation exposure prior to birth can affect fetal and infant health.

During childhood and adolescence, the behavior of caregivers as well as the behavior of young people themselves influences biological, emotional, and social health. Important factors include living in a loving home and safe shelter, eating nutritious meals, getting adequate sleep, receiving good medical care, and developing educationally, intellectually, emotionally, and spiritually. Values, attitudes, and beliefs of caregivers play an important part in children's health. What early childhood experiences had the greatest effect on your health?

Behavior during Adulthood

Infectious diseases are still the major cause of death in most of the world (WHO, 2006). This was once true in the United States and other industrialized nations, but now the most influential factor for health is human behavior. In the 1970s researchers began to show

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how specific lifestyle choices such as patterns of sleeping, eating, exercising, smoking, and alcohol use affected the likelihood of death (Belloc & Breslow, 1972). The greater the number of positive health behaviors a person practiced, the longer they were likely to live. People make many choices affecting their health throughout their lives. In fact, the majority of deaths in the United States are a result of behavioral risk factors (United States Department of Health and Human Services [USDHHS], 2004). The leading cause of death is cardiovascular disease, which is exacerbated or even caused by smoking, high-fat and high-caloric eating patterns, and little exercise. Cancer is the second leading cause of death, and it is often related to all of the factors mentioned above, plus alcohol and other substances, following unsafe sexual practices, contact with carcinogenic substances, and excessive exposure to sunlight and tanning beds. People younger than 24 years are more likely to die in motor vehicle collisions, which are labeled “unintentional” causes of death to distinguish them from suicides and homicides. Many of these collisions are due to alcohol abuse and reckless driving. Maintaining a stressful lifestyle is probably related to all of the above, but “stress” does not appear on death certificates.

Summary

This chapter introduces students to the field of health psychology located within the scientific discipline of general psychology. Health psychology applies psychological principles toward a broader understanding of health, illness, and injury. It uses a systems approach to health rather than a more limited biomedical approach. The biopsychosocial model of health psychology includes biological, psychological, and sociocultural components of health in any analysis. Beliefs about influence on health vary from age to age. Health psychologists use information from a variety of fields, including behavioral medicine, epidemiology, medical sociology, and cultural anthropology. Completing a course in health psychology will result in students developing a better understanding of the multiple factors affecting their health and healing following an illness or injury. Students are asked to assess their attitudes about the state of their own physical, emotional, and sociocultural health as well as their level of responsibility for maintaining their health. Genetic background, environmental factors, and behaviors also affect health. For most of us, the most important health-related factor is our own behavior. The major causes of death in the United States in the 21st century are the result of human behaviors such as smoking, substance abuse, overeating, neglect of exercise, and risky behaviors.

Review Questions

1. Write a brief description of the main goals of the field of health psychology.
2. What is different about health and life expectancy today than was true in the past?
3. List and briefly explain five benefits of completing a course in health psychology in addition to college credit.
4. Describe the biomedical approach to health and its limitations.

5. Explain advantages and disadvantages of taking a biopsychosocial approach to health.
6. What is systems theory? How does it help in the analysis of health issues?
7. Describe and give examples of the physical, emotional, and sociocultural dimensions of health.
8. If an individual is pregnant or has a disability, do you think of them as ill? Explain your answer.
9. Discuss three important factors affecting your health.
10. Write a brief summary of how your behavior affects your health.

Student Activity

1. Write a sentence explaining your personal view of health. Clarify whether your view is closer to the biomedical or the biopsychosocial approach.
2. Write an evaluation of your location on the three continuums of health. Are you physically well and emotionally happy at this time? Are your relationships satisfactory? Very few people are completely healthy in all three areas studied by health psychology.
3. Now describe what actions you could take to move yourself toward complete health on each of the three health continuums.
4. Analyze your most recent illness or injury using the biopsychosocial approach. Write about biological, psychological, and sociocultural factors that contributed to the illness or injury.
5. Explain what biopsychosocial factors contributed to your recovery.

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