

What Is Health Psychology?



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“Squeeze in a yoga class while you wait for your prescription” (December 27, 2004)

Every day, we see headlines about health, such as these from the *Los Angeles Times*. We are told that smoking is bad for us, that we need to exercise more, and that we’ve grown obese. We learn about new treatments for diseases about which we are only dimly aware, or we hear that a particular herbal remedy may make us feel better about ourselves. We are told that meditation or optimistic beliefs can keep us healthy or help us to get well more quickly. How do we make sense of all these claims, and which ones are personally important? Health psychology addresses important questions like these.

■ DEFINITION OF HEALTH PSYCHOLOGY

Health psychology is an exciting and relatively new field devoted to understanding psychological influences on how people stay healthy, why they become ill, and how they respond when they do get ill. Health psychologists both study such issues and promote interventions to help people stay well or get over illness. For example, a health psychology researcher might be interested in why people continue to smoke even though they know that smoking increases their risk of cancer and heart disease. Information about why people smoke helps the researcher both understand this poor health habit and design interventions to help people stop smoking.

Fundamental to research and practice in health psychology is the definition of health. In 1948, the World Health Organization defined **health** as “a complete state of physical, mental, and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 1948). This definition, which was very forward looking for its time, is at the core of health psychologists’ conception of health. Rather than defining health as the absence of illness, health is recognized to be an

achievement involving balance among physical, mental, and social well-being. Many use the term **wellness** to refer to this optimum state of health.

Health psychology is concerned with all aspects of health and illness across the life span. Health psychologists focus on *health promotion and maintenance*, which includes such issues as how to get children to develop good health habits, how to promote regular exercise, and how to design a media campaign to get people to improve their diets.

Health psychologists also study the psychological aspects of *the prevention and treatment of illness*. A health psychologist might teach people in a high-stress occupation how to manage stress effectively so that it will not adversely affect their health. A health psychologist might work with people who are already ill to help them adjust more successfully to their illness or to learn to follow their treatment regimen.

Health psychologists also focus on *the etiology and correlates of health, illness, and dysfunction*. **Etiology** refers to the origins or causes of illness, and health psychologists are especially interested in the behavioral and social factors that contribute to health or to illness and dysfunction. Such factors can include health habits such as alcohol consumption, smoking, exercise, the wearing of seat belts, and ways of coping with stress.

Finally, health psychologists analyze and attempt to improve *the health care system and the formulation of health policy*. They study the impact of health institutions and health professionals on people’s behavior and develop recommendations for improving health care.

In summary, health psychology examines the psychological and social factors that lead to the enhancement of health, the prevention and treatment of illness, and the evaluation and modification of health policies that influence health care.

Why Do We Need Health Psychology?

To many people, health is simply a matter of staying well or getting over illnesses quickly, states to which psychological and social factors might seem to have little to contribute. But consider some of the following puzzles that cannot be understood without the input of health psychology:

- When people are exposed to a cold virus, some get colds while others do not. Why?
- Men who are married live longer than men who are not. Why?

- Throughout the world, life expectancy is increasing. But in countries going through dramatic social upheaval, life expectancy can plummet. Why?
- Women live longer than men in all countries except those in which they are denied access to health care. But women are more disabled, have more illnesses, and use health services more. Why?
- Wealthier nations generally have better health care. In the United States, which has an average annual income of \$22,794, people can expect to live to about 77 years of age. But in Costa Rica, where the average annual income is \$4,193, life expectancy is exactly the same. Why?
- At the beginning of the previous century, infectious diseases such as tuberculosis, pneumonia, and influenza were the major causes of illness and death. Now chronic diseases such as heart disease, cancer, and diabetes are the main causes of disability and death. Why?
- Attending a church or synagogue, praying, or otherwise tending to spiritual needs is good for your health. Why?

In this chapter, we consider why our current state of knowledge about health and health care issues has given rise to the field of health psychology. To begin, we consider how philosophers have conceived of the **mind-body relationship** and how we have arrived at our present viewpoint of the mind and body as inextricable influences on health. Next, we consider the dominant clinical and research model in health psychology: the biopsychosocial model. Finally, we discuss the trends in medicine, psychology, and the health care system that have contributed to the emergence of health psychology.

■ THE MIND-BODY RELATIONSHIP: A BRIEF HISTORY

Historically, philosophers have vacillated between the view that the mind and body are part of the same system and the idea that they are two separate systems. When we look at ancient history, it becomes clear that we have come full circle in our beliefs about the mind-body relationship.

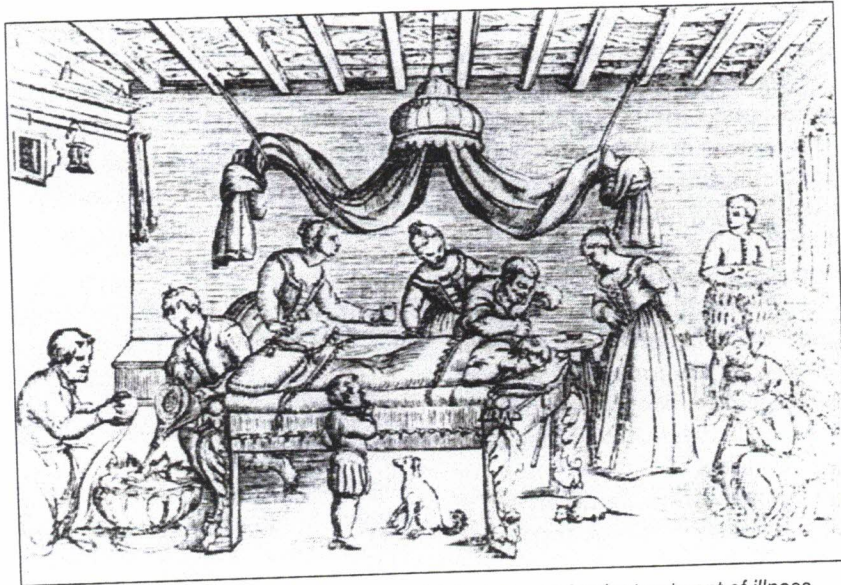
During human prehistory, most cultures regarded the mind and body as intertwined. Disease was thought to arise when evil spirits entered the body, and treatment

consisted primarily of attempts to exorcise these spirits. Some skulls from the Stone Age have small, symmetrical holes that are believed to have been made intentionally with sharp tools to allow the evil spirit to leave the body while the shaman performed the treatment ritual.

The ancient Greeks were among the earliest civilizations to identify the role of bodily factors in health and illness. Rather than ascribing illness to evil spirits, they developed a humoral theory of illness. According to their viewpoint, disease resulted when the four humors or circulating fluids of the body—blood, black bile, yellow bile, and phlegm—were out of balance. The goal of treatment was to restore balance among the humors. The Greeks did assign a role for the mind, however. They described personality types associated with each of the four humors, with blood being associated with a passionate temperament, black bile with sadness, yellow bile with an angry disposition, and phlegm with a laid-back approach to life. Thus, the Greeks attributed disease to bodily factors but believed that psychological factors could also have an effect.

By the Middle Ages, however, the pendulum had swung back toward supernatural explanations for illness. Disease was regarded as God's punishment for evil doing, and cure often consisted of driving out the evil forces by torturing the body. Later, this form of "therapy" was replaced by penance through prayer and good works. During this time, the Church was the guardian of medical knowledge, and as a result, medical practice assumed religious overtones. The functions of the physician were typically absorbed by priests, and so healing and the practice of religion became virtually indistinguishable.

Beginning in the Renaissance and continuing into the present day, great strides have been made in understanding the technical bases of medicine. These advances include the invention of the microscope in the 1600s and the development of the science of autopsy, which allowed medical practitioners to see the organs that were implicated in different diseases. As the science of cellular pathology progressed, the humoral theory of illness was finally put to rest. As a result of scientific advances such as these, medical practice drew increasingly on laboratory findings and looked to bodily factors rather than to the mind as bases for health and illness. In an effort to break with the superstitions of the past, practitioners resisted acknowledging any role of the mind in disease processes. Instead, they focused primarily on organic and cellular pathology as a basis for their diagnoses and treatment recommendations.



Sophisticated, though not always successful, techniques for the treatment of illness were developed during the Renaissance. This woodcut from the 1570s depicts a surgeon drilling a hole in a patient's skull, with the patient's family and pets looking on.

Psychoanalytic Contributions

This view began to change with the rise of modern psychology, particularly with Sigmund Freud's (1856–1939) early work on **conversion hysteria**. According to Freud, specific unconscious conflicts can produce particular physical disturbances that symbolize repressed psychological conflicts. In conversion hysteria, the patient converts the conflict into a symptom via the voluntary nervous system; he or she then becomes relatively free of the anxiety the conflict would otherwise produce (Cameron, 1963).

The conversion hysteria literature is full of intriguing but biologically impossible disturbances, such as glove anesthesia (in which the hand, but not other parts of the arm, loses sensation), in response to highly stressful events. Other problems—including sudden loss of speech, hearing, or sight; tremors; muscular paralysis; and eating disorders such as anorexia nervosa and bulimia—have also been interpreted as forms of conversion hysteria. True conversion responses are now less rarely seen.

Psychosomatic Medicine

Nonetheless, the idea that specific illnesses are produced by individuals' internal conflicts was perpetuated in the work of Flanders Dunbar in the 1930s (Dunbar, 1943) and Franz Alexander in the 1940s (Alexander, 1950).

Unlike Freud, these researchers linked patterns of personality, rather than a single specific conflict, to specific illnesses. For example, Alexander developed a profile of the ulcer-prone personality as someone whose disorder is caused primarily by excessive needs for dependency and love.

A more important departure from Freud concerned the physiological mechanism postulated to account for the link between conflict and disorder. Whereas Freud believed that conversion reactions occur without any necessary physiological changes, Dunbar and Alexander argued that conflicts produce anxiety, which becomes unconscious and takes a physiological toll on the body via the autonomic nervous system. The continuous physiological changes eventually produce an actual organic disturbance. In the case of the ulcer patient, for example, repressed emotions resulting from frustrated dependency and love-seeking needs were said to increase the secretion of acid in the stomach, eventually eroding the stomach lining and producing ulcers (Alexander, 1950).

Dunbar's and Alexander's work helped shape the emerging field of **psychosomatic medicine** by offering profiles of particular disorders believed to be psychosomatic in origin—that is, bodily disorders caused by emotional conflicts: ulcers, hyperthyroidism, rheumatoid arthritis, essential hypertension, neurodermatitis (a skin disorder), colitis, and bronchial asthma. Many of

the early ideas generated by adherents to the psychosomatic medicine perspective persist today (Engel, 1986).

Nonetheless, several important criticisms of this movement have been ventured. First, the work on which many of these formulations was based was methodologically problematic, not conforming to the highest scientific standards of the day. Second, and more importantly, researchers now believe that a particular conflict or personality type is not sufficient to produce illness. Rather, the onset of disease requires the interaction of a variety of factors; these include a possible genetic weakness in the organism, the presence of environmental stressors, early learning experiences and conflicts, current ongoing learning and conflicts, and individual cognitions and coping efforts. A third criticism of the psychosomatic movement is that it cordoned off a particular set of diseases as caused by psychological factors, thereby restricting the range of medical problems to which psychological and social factors were deemed to apply.

Despite the criticisms of the early psychosomatic movement, it laid the groundwork for a profound change in beliefs about the relation of the mind and the body (Engel, 1986). We now know that physical health is inextricably interwoven with the psychological and social environment: All conditions of health and illness, not just the diseases identified by the early psychosomatic theorists, are influenced by psychological and social factors. The treatment of illness and the prognosis for recovery are substantially affected by such factors as the patient-practitioner relationship and expectations about pain and discomfort. Staying well is heavily determined by good health habits, all of which are under one's personal control, and by such socially determined factors as stress and social support. The mind and the body cannot be meaningfully separated in matters of health and illness.

The renewed interest in the mind-body relationship has also been fueled by increasing attention in Western medicine to traditional East Asian medical philosophies and practices. For example, the Chinese approach to health and illness focuses on the whole person and, rather than regarding a diseased organ in isolation, considers its relations to all the body's systems. By identifying symptoms and using other diagnostic technologies, the pattern of disharmony that has resulted in illness is identified. The goal of treatment is to restore balance, which is often accomplished through treatments such as herbal remedies, acupuncture, massage, exercise, and nutrition. These insights have been increasingly incorporated into Western medical care.

An adequate understanding of what keeps people healthy or makes them get well is impossible without knowledge of the psychological and social context within which health and illness are experienced. This current conception of the mind-body interaction is one of the many factors that have spawned the rapidly growing field of health psychology.

■ THE BIOPSYCHOSOCIAL MODEL IN HEALTH PSYCHOLOGY

The idea that the mind and the body together determine health and illness logically implies a model for studying these issues. This model is called the **biopsychosocial model**. As its name implies, its fundamental assumption is that health and illness are consequences of the interplay of biological, psychological, and social factors (Suls & Rothman, 2004). Because the biopsychosocial model figures so prominently in the research and clinical issues described in this book, we consider it in some detail here.

The Biopsychosocial Model Versus the Biomedical Model

Perhaps the best way to understand the biopsychosocial model is to contrast it with the biomedical model. The **biomedical model**, which governed the thinking of most health practitioners for the past 300 years, maintains that all illness can be explained on the basis of aberrant somatic bodily processes, such as biochemical imbalances or neurophysiological abnormalities. The biomedical model assumes that psychological and social processes are largely irrelevant to the disease process.

Although the biomedical model has undeniable benefits for studying some diseases, it has several potential liabilities. First, it is a reductionistic model. That is, it reduces illness to low-level processes, such as disordered cells and chemical imbalances, rather than recognizing the role of more general social and psychological processes. Second, the biomedical model is essentially a single-factor model. That is, it explains illness in terms of a biological malfunction rather than recognizing that a variety of factors, only some of which are biological, may be responsible for the development of illness. Third, the biomedical model implicitly assumes a mind-body dualism, maintaining that mind and body are separate entities. Finally, the biomedical model clearly emphasizes

illness over health. That is, it focuses on aberrations that lead to illness rather than on the conditions that might promote health.

Thus, the shortcomings of the biomedical model are several. First, it has difficulty accounting for why a particular set of somatic conditions need not inevitably lead to illness. Why, for example, if six people are exposed to measles, do only three develop the disease? There are psychological and social factors that influence the development of illness, and these are ignored by the biomedical model. Whether a treatment will cure a disease is also substantially affected by psychological and social factors, and this cannot be explained by the biomedical model. As a consequence, researchers and practitioners have increasingly adopted the biopsychosocial model.

Advantages of the Biopsychosocial Model

How, then, does the biopsychosocial model of health and illness overcome the disadvantages of the biomedical model? The biopsychosocial model, as previously noted, maintains that biological, psychological, and social factors are all-important determinants of health and illness. As such, both macrolevel processes (such as the existence of social support or the presence of depression) and microlevel processes (such as cellular disorders or chemical imbalances) interact to produce a state of health or illness.

The biopsychosocial model maintains that health and illness are caused by multiple factors and produce multiple effects. The model further maintains that the mind and body cannot be distinguished in matters of health and illness because both so clearly influence an individual's state of health. The biopsychosocial model emphasizes both health and illness rather than regarding illness as a deviation from some steady state. From this viewpoint, health becomes something that one achieves through attention to biological, psychological, and social needs rather than something that is taken for granted.

But how do biological, social, and psychological variables interact, particularly if biological factors are microlevel processes and psychological and social factors are macrolevel processes? To address this question, researchers have adopted a **systems theory** approach to health and illness. Systems theory maintains that all levels of organization in any entity are linked to each other hierarchically and that change in any one level will

effect change in all the other levels. This means that the microlevel processes (such as cellular changes) are nested within the macrolevel processes (such as societal values) and that changes on the microlevel can have macrolevel effects (and vice versa).

Consequently, health, illness, and medical care are interrelated processes involving interacting changes both within the individual and on these various levels. To address these issues impels researchers toward interdisciplinary thinking and collaboration. It also requires researchers to apply sophisticated, multivariate approaches to testing problems and to the often complex statistics needed to analyze them (Suls & Rothman, 2004).

Clinical Implications of the Biopsychosocial Model

There are several implications of the biopsychosocial model for clinical practice with patients. First, the model maintains that the process of diagnosis should always consider the interacting role of biological, psychological, and social factors in assessing an individual's health or illness (Oken, 2000). Therefore, an interdisciplinary team approach may be the best way to make a diagnosis (Suls & Rothman, 2004).

Second, the biopsychosocial model maintains that recommendations for treatment must also involve all three sets of factors. By doing this, it should be possible to target therapy uniquely to a particular individual, consider a person's health status in total, and make treatment recommendations that can deal with more than one problem simultaneously. Again, a team approach may be most appropriate (Schwartz, 1982).

Third, the biopsychosocial model makes explicit the significance of the relationship between patient and practitioner. An effective patient-practitioner relationship can improve a patient's use of services, the efficacy of treatment, and the rapidity with which illness is resolved (Belar, 1997).

In summary, the biopsychosocial model clearly implies that the practitioner must understand the social and psychological factors that contribute to an illness in order to treat it appropriately. In the case of a healthy individual, the biopsychosocial model suggests that one can understand health habits only in their psychological and social contexts. These contexts may maintain a poor health habit or, with appropriate modifications, facilitate the development of healthy ones. In the case of the ill individual, biological, psychological, and social factors all contribute to recovery.

The Biopsychosocial Model: The Case History of Nightmare Deaths

To see how completely the mind and body are intertwined in matters of health, consider a case study that intrigued medical researchers for nearly 15 years. It involved the bewildering “nightmare deaths” among Southeast Asian refugees to the United States.

Following the Vietnam War, in the 1970s, a wave of immigrants from Southeast Asia, especially Laos, Vietnam, and Cambodia, came to the United States. Around 1977, the Centers for Disease Control (CDC) in Atlanta became aware of a strange phenomenon: sudden, unexpected nocturnal deaths among male refugees from these groups. These sudden deaths showed several important similarities. For example, death often occurred in the first few hours of sleep. Relatives reported that the victim began to gurgle and move about in bed restlessly. Efforts to awaken him were unsuccessful, and shortly thereafter he died. Even more mysteriously, autopsies revealed no specific cause of death.

However, most of the victims appeared to have a rare, genetically based malfunction in the heart’s pacemaker. The fact that only men of particular ethnic backgrounds were affected was consistent with the potential role of a genetic factor. Also, the fact that the deaths seemed to cluster within particular families was consistent with the genetic theory. But how and why would such a defect be triggered during sleep?

As the number of cases increased, it became evident that psychological and cultural, as well as biological, factors were involved. Interviews with victims’ families provided some clues. Family members reported that the victim or another close relative had often experienced a dream foretelling the death. Among the Hmong of Laos, a refugee group that was especially plagued by these nightmare deaths, dreams are taken seriously as portending the future. Anxiety due to these dreams, then, may have played a role in the deaths (Adler, 1991).

Another vital set of clues came from a few men who were resuscitated by family members. Several of them said that they had been having a severe night terror, an intensely frightening dream. One man, for example, said that his room had suddenly grown darker, and a figure like a large black dog had come to his bed and sat on his chest. He had been unable to push the dog off his chest and had become quickly and dangerously short of breath (Tobin & Friedman, 1983, p. 440). This was also an important clue because night terrors are known to produce abrupt and dramatic physiologic changes.

A particularly interesting result of the interviews with the survivors was the discovery that many of the men had been watching violent TV shows shortly before retiring, and the content of the shows appeared to have made its way into some of the frightening dreams. In other cases, the fatal event occurred immediately after a family argument.

None of the men who succumbed to nightmare death had been through any identifiably traumatic event. However, many of them were said by their families to have been exhausted from combining demanding full-time jobs with a second job or with night school classes to learn English. The pressures to support their families had been taking their toll.

All these clues suggest that the pressures of adjusting to life in the United States played a role in the deaths. The victims may have been overwhelmed by cultural differences, language barriers, difficulties finding satisfactory employment, and, in some cases, dependency on welfare—humiliating experiences for once proud, hard-working people. The combination of this chronic strain, a genetic susceptibility, and an immediate trigger provided by a family argument, violent television, or a frightening dream culminated in nightmare death (Lemoine & Mougne, 1983). This intriguing phenomenon helps us see that health and illness may be more complex than we realize.

■ WHY IS THE FIELD OF HEALTH PSYCHOLOGY NEEDED?

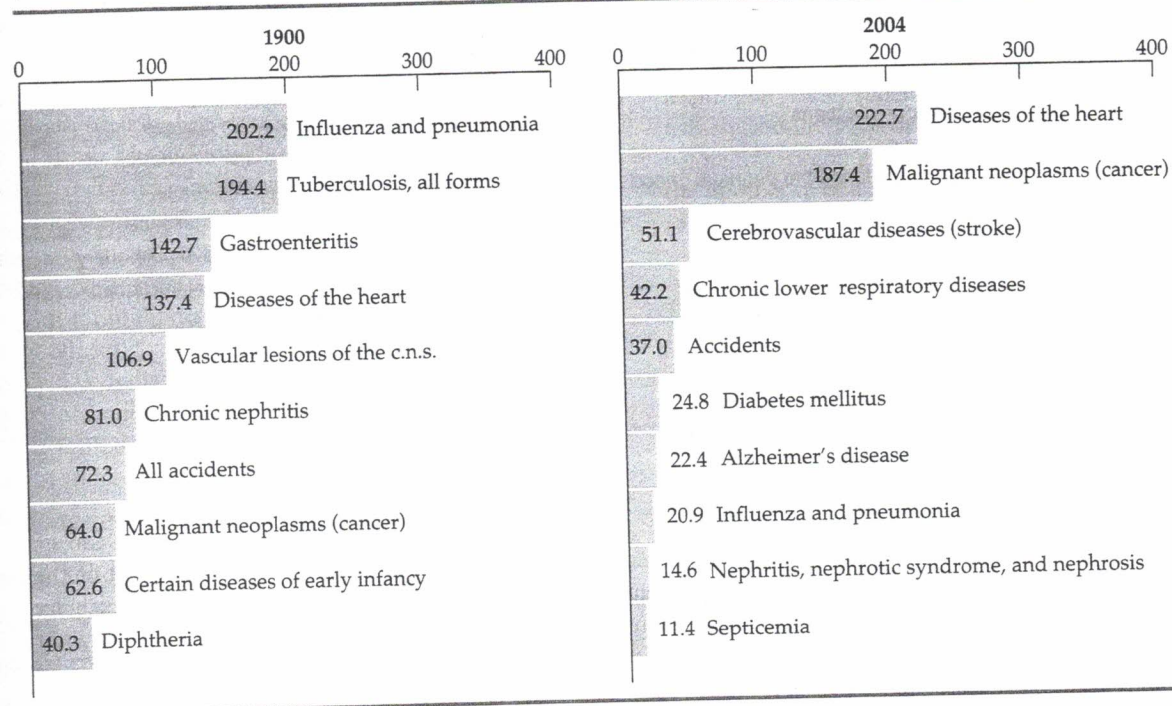
A number of trends within medicine, psychology, and the health care system have combined to make the emergence of health psychology inevitable. It is safe to say that health psychology is one of the most important developments within the field of psychology in the past 50 years. What factors led to the development of health psychology?

Changing Patterns of Illness

The most important factor giving rise to health psychology has been the change in illness patterns that has occurred in the United States and other technologically advanced societies. As Figure 1.1 shows, until the 20th century, the major causes of illness and death in the United States were **acute disorders**—especially tuberculosis, pneumonia, and other infectious diseases. Acute disorders are short-term illnesses, often the result of a viral

FIGURE 1.1 | Death Rates for the 10 Leading Causes of Death per 100,000 Population, United States, 1900 and 2004

(Sources: Murphy, 2000; National Vital Statistics Reports, 2006; Sexton, 1979)



or bacterial invader and usually amenable to cure. Now, however, **chronic illnesses**—especially heart disease, cancer, and diabetes—are the main contributors to disability and death, particularly in industrialized countries. Chronic illnesses are slowly developing diseases with which people live for a long time. Often, chronic illnesses cannot be cured but rather only managed by patient and health care provider. Table 1.1 lists the main diseases worldwide at the present time. Note how the causes are projected to change over the next decade or so.

Why have chronic illnesses helped spawn the field of health psychology? First, these are diseases in which psychological and social factors are implicated as causes. For example, personal health habits, such as diet and smoking, are implicated in the development of heart disease and cancer, and sexual activity is critical to the likelihood of developing AIDS (acquired immune deficiency syndrome). Consequently, health psychology has evolved, in part, to explore these causes and to develop ways to modify them.

Second, because people may live with chronic diseases for many years, psychological issues arise in connection

with them. Health psychologists help the chronically ill adjust psychologically and socially to their changing health state. They help those with chronic illness develop treatment regimens, many of which involve self-care. Chronic illnesses affect family functioning, including relationships with a partner or children, and health psychologists both explore these changes and help ease the problems in family functioning that may result.

Many people with chronic illnesses use unconventional therapies outside formal medicine (Eisenberg et al., 1993). Understanding what leads people to seek unconventional treatments and evaluating their effectiveness are also issues on which health psychologists can shed light.

Advances in Technology and Research

The field of health psychology is changing almost daily because new issues arise that require the input of psychologists (Saab et al., 2004). For example, new technologies now make it possible to identify the genes that contribute to many disorders. Just in the past few years, genes

TABLE 1.1 | What Are the Worldwide Causes of Death?

The causes of death and disability are expected to change dramatically by the year 2020.

| 1990 | | 2020 | |
|------|--|----------------|---------------------------------------|
| Rank | Disease or Injury | Projected Rank | Disease or Injury |
| 1 | Lower respiratory infections | 1 | Ischemic heart disease |
| 2 | Diarrheal diseases | 2 | Unipolar major depression |
| 3 | Conditions arising during the perinatal period | 3 | Road traffic accidents |
| 4 | Unipolar major depression | 4 | Cerebrovascular disease |
| 5 | Ischemic heart disease | 5 | Chronic obstructive pulmonary disease |
| 6 | Cerebrovascular disease | 6 | Lower respiratory infections |
| 7 | Tuberculosis | 7 | Tuberculosis |
| 8 | Measles | 8 | War |
| 9 | Road traffic accidents | 9 | Diarrheal diseases |
| 10 | Congenital anomalies | 10 | HIV |

Source: World Health Organization, 1996.

contributing to many diseases, including breast cancer, have been uncovered. How do we help a college student whose mother has just been diagnosed with breast cancer come to terms with her risk, now that the genetic basis of breast cancer is better understood? Should the daughter get tested? And if she does get tested, and if she tests positive for a breast cancer gene, how will this change her life? How will she cope with her risk, and how should she change her behavior? Health psychologists help answer such questions.

“My father had a heart attack. Should I be making changes in my diet?” asks a student in a health psychology class. Health psychologists conduct research that identifies the risk factors for disease, such as a high-fat diet, and help people learn to change their diet and stick to their program. Helping people make informed, appropriate decisions is fundamentally a psychological task.

Advances in genetic research have made it possible to identify carriers of illness and to test a fetus for the presence of particular life-threatening or severely debilitating illnesses. This places some parents in the position of having to decide whether to abort a pregnancy—a wrenching, difficult decision to make.

Certain treatments that may prolong life may also severely compromise quality of life. Increasingly, patients are asked their preferences regarding life-sustaining measures, and they may require counseling in these matters. These are just a few examples of the increasing role that patients play in fundamental decisions regarding their

health and illness and its management, and of the help health psychologists can provide in this process.

The Role of Epidemiology in Health Psychology Changing patterns of illness have been charted and followed by the field of epidemiology, a discipline closely related to health psychology in its goals and interests (Miller, 1992). **Epidemiology** is the study of the frequency, distribution, and causes of infectious and noninfectious disease in a population, based on an investigation of the physical and social environment. For example, epidemiologists study not only who has what kind of cancer but also why some cancers are more prevalent than others in particular geographic areas or among particular groups of people.

In the context of epidemiologic statistics, we will see the frequent use of two important terms: “morbidity” and “mortality.” **Morbidity** refers to the number of cases of a disease that exist at some given point in time. Morbidity may be expressed as the number of new cases (incidence) or as the total number of existing cases (prevalence). Morbidity statistics, then, tell us how many people are suffering from what kinds of illnesses at any given time. **Mortality** refers to numbers of deaths due to particular causes.

In establishing the goals and concerns of health psychology and the health care endeavor more broadly, morbidity and mortality statistics are essential. We need to know the major causes of disease, particularly the diseases that lead to early death, so as to reduce their

occurrence. For example, knowing that automobile accidents have historically been a major cause of death among children, adolescents, and young adults has led to the initiation of safety measures, such as child safety restraint systems, mandatory seat belt laws, and airbags. Knowing that cardiac disease is the major cause of premature death (that is, death that occurs prior to the expected age of death for an individual) has led to a nationwide effort to reduce risk factors among those most vulnerable, including smoking reduction, dietary changes, cholesterol reduction, increased exercise, and weight loss (Smith, Orleans, & Jenkins, 2004).

But morbidity is at least as important. What is the use of affecting causes of death if people remain ill but simply do not die? Increasingly, health psychology is concerned not only with biological outcomes but also with health-related quality of life and symptomatic complaints. Indeed, some have argued that quality of life and expressions of symptoms should be more important targets for our interventions than mortality and other biological indicators (Kaplan, 1990). Consequently, health psychologists are becoming more involved in the effort to improve quality of life among those diagnosed with chronic illnesses, so that these individuals may live out their remaining years as free from pain, disability, and lifestyle compromise as possible.

Expanded Health Care Services

Another set of factors that has contributed to the rise of health psychology relates to the expansion of health care services. Health care is the largest service industry in the United States, and it is still growing rapidly. Americans spend more than \$1.7 trillion annually on health care (National Center for Health Statistics, 2005). In recent years, the health care industry has come under increasing scrutiny as we have realized that massive increases in health care costs have not brought with them improvement in basic indicators of quality of health (Tovian, 2004).

Moreover, huge disparities exist in the United States such that some individuals enjoy the very best health care available in the world while others receive little health care except in emergencies. As of 2005, 46.6 million Americans had no health insurance at all (U.S. Census Bureau, 2005), with basic preventive care and treatment for common illnesses simply out of financial reach. These are among the developments that have fueled recent efforts to reform the health care system to provide all Americans with a basic health care

package, similar to what already exists in most European countries.

Health psychology represents an important perspective on these issues for several reasons:

- Because containing health care costs is so important, health psychology's main emphasis on prevention—namely, modifying people's risky health behaviors before they become ill—has the potential to reduce the number of dollars devoted to the management of illness.
- Health psychologists have done substantial research on what makes people satisfied or dissatisfied with their health care (see Chapters 8 and 9). Thus, they can help in the design of a user-friendly health care system.
- The health care industry employs many millions of individuals in a variety of jobs. Nearly every individual in the country has direct contact with the health care system as a recipient of services. Thus, its impact on people is enormous.

For all these reasons, then, health has a substantial social and psychological impact on people, an impact that is addressed by health psychologists.

Increased Medical Acceptance

Another reason for the development of health psychology is the increasing acceptance of health psychologists within the medical community. Although health psychologists have been employed in health settings for many years, their value is increasingly recognized by physicians and other health care professionals.

At one time, the role of health psychologists in health care was largely confined to the task of administering tests and interpreting the test results of individuals who were suspected of being psychologically disturbed. Like psychiatrists in health care settings, psychologists usually saw the "problem patients"—those who were difficult for medical staff to manage or whose physical complaints were believed to be entirely psychological in origin. Patients who had complaints that could be readily attributed to medical problems and who were easy to manage were considered not to have psychological problems and were therefore thought to be outside the psychologist's province.

Now, however, caregivers are increasingly recognizing that psychological and social factors are important in health and illness. Accordingly, the role of the psychologist in changing patients' health habits and contributing to treatment is increasingly acknowledged.

Demonstrated Contributions to Health

Health psychology has already demonstrated that it can make substantial contributions to health, contributions that form the substance of this book. A few brief examples will illustrate this point.

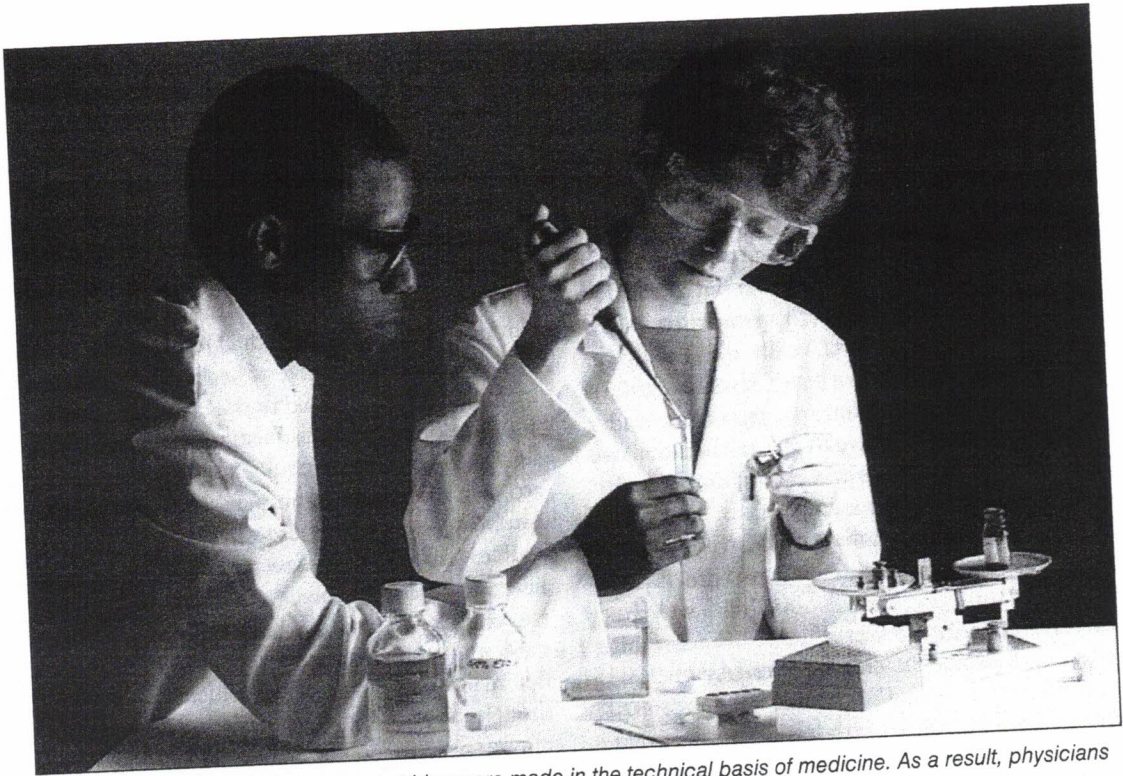
Health psychologists have developed a variety of short-term behavioral interventions to address a variety of health-related problems, including managing pain, modifying bad health habits such as smoking, and managing the side effects or treatment effects associated with a range of chronic diseases. Techniques that often take a mere few hours to teach often produce years of benefit. Such interventions, particularly those that target risk factors such as diet or smoking, have contributed to the actual decline in the incidence of some diseases, especially coronary heart disease (McGinnis et al., 1992).

To take another example, psychologists learned many years ago that informing patients fully about the procedures and sensations involved in unpleasant medical

procedures, such as surgery, improves their adjustment to those procedures (Janis, 1958; Johnson, 1984). As a consequence of these studies, many hospitals and other treatment centers now routinely prepare patients for such procedures. Ultimately, if a discipline is to flourish, it must demonstrate a strong track record, and health psychology has done precisely that.

Methodological Contributions to Health

Health psychologists make important methodological contributions to issues of health and illness. Many of the issues that arise in medical settings demand rigorous research investigation. Although physicians and nurses receive some methodological and statistical education, their training may be inadequate to conduct research on the issues they wish to address. The health psychologist can be a valuable member of the research team by providing the methodological and statistical expertise that is the hallmark of good training in psychology.



In the 19th and 20th centuries, great strides were made in the technical basis of medicine. As a result, physicians looked more and more to the medical laboratory and less to the mind as a way of understanding the onset and progression of illness.

Experiments Much research in health psychology is experimental. In an **experiment**, a researcher creates two or more conditions that differ from each other in exact and predetermined ways. People are then randomly assigned to experience these different conditions, and their reactions are measured. Experiments conducted by health care practitioners to evaluate treatments or interventions and their effectiveness over time are also called **randomized clinical trials**.

What kinds of experiments do health psychologists do? To determine if social support groups improve adjustment to cancer, cancer patients might be randomly assigned to participate in a support group or in a comparison condition, such as an educational intervention. The patients could be evaluated at a subsequent time to pinpoint whether one group was better adjusted to the cancer than the other or how they differed in their adjustment.

Experiments have been the mainstay of science, because they often provide more definitive answers to problems than other research methods. When we manipulate a variable and see its effect, we can establish a cause-effect relationship definitively. For this reason, experiments and randomized clinical trials have been the mainstays of health psychology research. However, sometimes it is impractical to study issues experimentally. People cannot, for example, be randomly assigned to diseases.

Correlational Studies Other research in health psychology is **correlational research**, in which the health psychologist measures whether a change in one variable corresponds with changes in another variable. A correlational study, for example, might reveal that people who are higher in hostility have a higher risk for cardiovascular disease. The disadvantage of correlational studies is that it is impossible to determine the direction of causality unambiguously: It is possible, for example, that cardiovascular risk factors lead people to become more hostile. On the other hand, correlational studies often have advantages over experiments because they are more adaptable, enabling us to study issues when the variables cannot be manipulated experimentally.

Prospective Designs Some of the problems with correlational studies can be remedied by using a prospective approach to research. **Prospective research** looks forward in time to see how a group of individuals

change, or how a relationship between two variables changes, over time. For example, if we were to find that hostility develops relatively early in life, but other risk factors for heart disease develop later, we might feel more confident that hostility is a risk factor for heart disease and recognize that the reverse direction of causality—namely, that heart disease causes hostility—is unlikely.

Health psychologists conduct many prospective studies in order to understand the risk factors that relate to certain health conditions. We might, for example, intervene in the diet of one community and not in another and over time look at the difference in rates of heart disease. This would be an experimental prospective study. Alternatively, we might measure the diets that people create for themselves and look at changes in rates of heart disease, as determined by how good or poor the diet is. This would be an example of a correlational prospective study.

A particular type of prospective approach is **longitudinal research**, in which the same people are observed over a long period of time. For example, if we wanted to know what factors are associated with early breast cancer in women at risk for it, we might follow a group of young women whose mothers developed breast cancer in an effort to identify which daughters developed breast cancer and whether there are any reliable factors associated with that development, such as diet, smoking, or alcohol consumption.

Retrospective Research Investigators also use **retrospective research**, which looks backward in time, in an attempt to reconstruct the conditions that led to a current situation. Retrospective methods, for example, were critical in identifying the risk factors that led to the development of AIDS. Initially, researchers saw an abrupt increase in a rare cancer called Kaposi's sarcoma and observed that the men who developed this cancer often eventually died of general failure of the immune system. By taking extensive histories of the men who developed this disease, researchers were able to determine that the practice of anal-receptive sex without a condom is related to the development of the disorder. Because of retrospective studies, researchers knew some of the risk factors for AIDS even before they had identified the retrovirus.

Throughout this text, we will refer to a variety of research methods that have developed to address the manifold problems with which health psychologists

have been concerned. The previous general introduction to some of the most important research methods serves as context to clarify the more focused methods that are described in subsequent chapters. Suffice it to say at this point that the research training that health psychologists receive in their undergraduate and graduate school experiences makes them valuable parts of the research teams that attempt to understand how we stay healthy and why we get ill.

■ WHAT IS HEALTH PSYCHOLOGY TRAINING FOR?

Students who are trained in health psychology on the undergraduate level go on to many different occupations.

Careers in Practice

Some go into medicine, becoming physicians and nurses. Because of their experience in health psychology, they are often able to understand and manage the social and psychological aspects of the health problems they treat better than would be the case if their education had included only training in traditional medicine. Thus, for example, they may realize that a self-care plan for a chronically ill person will be unsuccessful unless the family members are educated in the regimen. Some of these health care practitioners conduct research as well.

Other health psychology students go into the allied health professional fields, such as social work, occupational therapy, dietetics, physical therapy, or public health. Social workers in medical settings, for example, are often responsible for assessing where patients go after discharge, decisions that are enlightened by knowledge of the psychosocial needs of individual patients. A woman recovering from breast cancer surgery, for example, may need linkages to breast cancer support groups and contacts for obtaining a prosthesis. Occupational therapists are heavily involved in the vocational and avocational retraining of the chronically ill and disabled to improve their occupational abilities and skills for daily living. Dietetics is an increasingly important field as the role of diet in the development and management of certain chronic illnesses, such as cancer, heart disease, and diabetes, becomes clear. Physical therapists help patients regain the use of limbs and functions that may have been compromised by illness and its treatment.

Careers in Research

Many students go on to conduct research in public health, psychology, and medicine. Public health researchers are involved in research and interventions that have the broad goal of improving the health of the general population. Public health researchers typically work in academic settings, public agencies (such as county health departments), the Centers for Disease Control, family planning clinics, the Occupational Safety and Health Administration and its state agencies, and air quality management district offices, as well as in hospitals, clinics, and other health care agencies.

In these settings, public health researchers can be responsible for a variety of tasks. For example, they may be involved in developing educational interventions for the general public to help people practice better health behaviors. They may formally evaluate programs for improving health-related practices that have already been implemented through the media and in communities. They may be responsible for administering health agencies, such as clinics or health and safety offices. They may chart the progress of particular diseases, monitor health threats in the workplace and develop interventions to reduce these threats, and conduct research on health issues.

Many undergraduates in health psychology go on to graduate school in psychology, where they learn the research, teaching, and intervention skills necessary to practice health psychology. Some then work in university departments of psychology, where they conduct research and train new students; others work in medical schools; many are in independent practice, where they work with patients who have health-related disorders; others work in hospitals and other treatment settings; and still others work in industrial or occupational health settings to promote health behavior, prevent accidents and other job-related morbidity, and control health care costs (Quick, 1999; Williams & Kohout, 1999).

The remainder of this book focuses on the kind of knowledge, training, research, and interventions that health psychologists undertake. In the last chapter, Chapter 15, information about how to pursue a career in health psychology is provided. At this point, it is useful to turn to the content of this exciting and growing field. ●

SUMMARY

1. Health psychology is the field within psychology devoted to understanding psychological influences on how people stay healthy, why they become ill, and how they respond when they do get ill. It focuses on health promotion and maintenance; prevention and treatment of illness; the etiology and correlates of health, illness, and dysfunction; and improvement of the health care system and the formulation of health policy.
2. The interaction of the mind and the body has concerned philosophers and scientists for centuries. Different models of the relationship have predominated at different times in history, but current emphasis is on the inextricable unity of the two.
3. The rise of health psychology can be tied to several factors, including the increase in chronic or lifestyle-related illnesses, the expanding role of health care in the economy, the realization that psychological and social factors contribute to health and illness, the demonstrated importance of psychological interventions to improving people's health, and the rigorous methodological contributions of expert researchers.
4. The biomedical model, which dominates medicine, is a reductionistic, single-factor model of illness that regards the mind and the body as separate entities and emphasizes illness concerns over health.
5. The biomedical model is currently being replaced by the biopsychosocial model, which regards any health or illness outcome as a complex interplay of biological, psychological, and social factors. The biopsychosocial model recognizes the importance of both macrolevel and microlevel processes in producing health and illness, and it maintains that the mind and body cannot be distinguished in matters of health and illness. Under this model, health is regarded as an active achievement.
6. The biopsychosocial model guides health psychologists in their research efforts to uncover factors that predict states of health and illness and in their clinical interventions with patients.
7. Health psychologists perform a variety of tasks. They research and examine the interaction of biological, psychological, and social factors in producing health and illness. They help treat patients suffering from a variety of disorders and conduct counseling for the psychosocial problems that illness may create. They develop worksite interventions to improve employees' health habits and work in organizations as consultants to improve health and health care delivery.

KEY TERMS

acute disorders
 biomedical model
 biopsychosocial model
 chronic illnesses
 conversion hysteria
 correlational research
 epidemiology

etiology
 experiment
 health
 health psychology
 longitudinal research
 mind-body relationship
 morbidity

mortality
 prospective research
 psychosomatic medicine
 randomized clinical trials
 retrospective research
 systems theory
 wellness