4th EDITION

health psychology

WELL-BEING in a DIVERSE WORLD

Regan A. R. Gurung

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To the love of my life, Martha Ahrendt. You exemplify all the research showing just how valuable having a strong source of social support is. Thank you.

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PREFACE

PHILOSOPHY

I knew culture and diversity were important when I first pitched this book more than 15 years ago. They are even more important today. In 2018 there are great health disparities in America and a cultural discomfort that most college-aged students have never lived through before. There continue to be significant differences in health behaviors and the incidence of illnesses such as coronary heart disease and cancer across ethnic groups. It is crucial for researchers to acknowledge these cultural differences. The limited attention to diversity catalyzed me to present an introduction to health psychology with a cultural approach. In this fourth edition, I have further fine-tuned the cultural focus and explained more thoroughly how culture is an important predictor of health. I have aimed to focus more on well-being in general and to enhance the discussion of diversity. I even changed my subtitle to reflect this focus. I also took the opportunity to use a more applied approach to make the material even more relevant to readers' everyday lives. With the multitude of new and exciting research in the field published monthly, this fourth edition offers an opportunity to update you on new developments in diversity and health.

THIS EDITION

The goals of this fourth edition are to examine how you can study the areas of health, illness, and medicine from a psychological and cultural perspective and to introduce the main topics and issues in the area of health psychology. This is in combination with providing training to judge the scientific quality of research on psychology and medicine. I begin by describing what health psychology is all about, emphasizing the importance of cultural competence. In a new chapter for this edition I highlight research methods in health psychology and provide a primer to navigating research in scholarly publications. I build on these basics with a revealing chapter on cultural variations in health beliefs and behaviors (how do shamans, acupuncture, yoga, and sweat lodges fit into health?). Our physiology is an important determinant of health. Chapter 4 describes essential physiological systems and processes that will aid your understanding of the different topics discussed later in the book. I then unravel the mysteries of stress and the ways to cope. In Chapters 5 and 6, I discuss the theories explaining stress and the many practical ways to alleviate it. Armed with tools to make everyday life stress-free, I turn to another common aspect of life: health behaviors that many of us do (or try to do more often) and those we try not to do. Chapter 7 describes some of the ways we can change health behaviors, and Chapter 8 describes some of the behaviors in detail. The second half of the book turns to topics relating to sickness, such as factors that surround illness (such as adherence and patient–practitioner interactions; Chapter 9), pain (Chapter 10), and chronic illnesses, terminal illness, and death (Chapter 11), before examining some of the major health concerns and illnesses plaguing society today (such as HIV, cancer, and cardiovascular disease; Chapters 12 to 14). Finally, I identify the major challenges faced by those in the field of health psychology (and provide some avenues for future exploration and training in this area).

Each chapter first lets you measure yourself. In a new pedagogical addition, I have added Measuring Up sections. Each features an actual published scale that lets you see where you stand. I then provide you with three major questions in a new Ponder This section. There is an outline of the topics covered as well as a clear preamble to the main topics of the chapter to orient your reading. Every chapter ends with a summary to help you review the major points and a list of the key terms, concepts, and people. Sections called "Synthesize, Evaluate, Apply" serve to break up the chapters into easy, manageable segments and allow you to test your knowledge. In addition, each chapter ends with ten multiple-choice questions to help further your comprehension. Finally,

I have provided a short list of *absolute must-reads*—a selection of essential readings comprising classic articles in the field or contemporary research studies regarding some of the material most cited by health psychologists. These are essentially the articles that are most likely to be used in any writing on the topic. You will get insights into the field and feel a better part of it if you read them.

If you think I have missed something, if you have a suggestion for how this book can be improved, if you want to share a way that your culture has influenced your health, or even if you want to share that you really enjoyed learning about health psychology using this book (that's my goal), you may contact me by email at gurungr@uwgb.edu.

WHAT ELSE IS NEW?

A lot. As luck would have it, I just finished a major editing project. I am coeditor of a new edition of the *Handbook of Health Psychology* and got to read 40 chapters written by experts in the field. This reading shaped this revision, enabling me to make sure you have the latest on the field of health psychology. This edition covers all the major subdisciplines of health psychology. I also coauthored a paper reporting on a national survey of professors of health psychology courses, conducted with the cooperation of the Society for Health Psychology (Division 38 of the American Psychological Association). This study again helped me revise the text with an eye to what teachers want and need (Panjwani, Gurung, & Revenson, 2017).

Nothing saved me from reading a lot of published literature. To ensure you get to read the most updated information, this new edition is based on more than 1,000 new research articles cited. Additionally, as a testament to my commitment to providing you with a robust scientific introduction to the field, I enforce the chapter discussions with relevant and interesting citations.

There are some major changes to this edition. In every chapter I have provided more information on how the topics discussed are measured by health psychologists in the field. Interested in coping? The relevant chapter has the most recent coping measures and the most used ones. This emphasis on measurement reflects the field's greater focus on the same. Speaking of measurement, I now have an entirely new chapter on research methods. Having it as part of the first chapter in the first three editions was acceptable, but research is the foundation of psychological science. The stand-alone chapter on methods now is a testament to this.

I have shortened many chapters and rearranged some topics to allow for better reading. For example, I moved some information on culture from the first chapter to the third. I also noted that the chapter on health behaviors (e.g., smoking and exercise) was very unwieldy. It is now divided into two parts to make the material easier to digest.

I have completely overhauled the artwork program with the help of some great editorial assistance. There are new photographs, reworked figures and graphs, and current examples related to recent events in the news.

ACKNOWLEDGMENTS

Together with those who fueled my passion for health psychology (acknowledged in my first edition, but Shelley Taylor, Christine Dunkel-Schetter, and Margaret Kemeny in particular) and those who first helped me get this project off the ground (especially Michele Sordi), I am grateful to the friends I have made in the field over the last ten years. Tracey Revenson in particular, with her passion for diversity and expertise in health psychology, has been a great muse and kept me honest with this new addition. I salute the wonderful students I have had the pleasure to teach using this book. They have helped me make this fourth edition even stronger. The many colleagues who used this book have also been wonderful resources, providing useful suggestions for improvement. I am also grateful to the increased efforts of community organizations in my home city of Green Bay, Wisconsin (shout out to Wello) for working to increase well-being and address the diverse approaches to health.

Lara Parra, my editor at SAGE, has been a joy to work with helping me transition between publishers. Emma Newsom provided valuable suggestions to improve this revision and did a lot of the heavy lifting through production. I would also like to thank all the SAGE staff who worked behind the scenes in bringing this book to life and to Zachary Valladon in particular for his help in finding photographs that fit. He is one chill dude. Speaking of chill, a special thank you to Roz Stoa, UW–Green Bay psychology major par excellence. She was particularly instrumental in my finding the most up-to-date research papers.

A number of dedicated reviewers read draft chapters and the first edition and suggested insightful improvements. In particular the following people provided invaluable comments:

Karen Linville Baker, University of Memphis Lambuth

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Joel A. Hagaman, University of the Ozarks

Michael Lindsey, Dedman College of Humanities and Science

Angie MacKewn, The University of Tennessee at Martin

Erin Wood, Catawba College

I am particularly grateful to my wife, Martha Ahrendt, for her patience during the entire process. She not only tolerated the times I needed to be focused on this revision, but also read drafts and shared her own expertise. A special shout out to my son and daughter who always listened with rapt attention to the latest research I shared with them almost daily.

ABOUT THE AUTHOR

REGAN A. R. GURUNG is the Ben J. and Joyce Rosenberg Professor of Human Development Psychology at the University of Wisconsin–Green Bay.

Born and raised in Bombay, India, Dr. Gurung received a Bachelor of Arts in psychology at Carleton College (Minnesota) and Master of Science (MS) and doctoral (PhD) degrees in social and personality psychology at the University of Washington (Washington State). He followed with 3 years at the University of California, Los Angeles, as a National Institute of Mental Health (NIMH) research fellow.

His early work focused on social support and close relationships; he studied how perceptions of support from close others influence relationship satisfaction. His later work investigated cultural differences in coping with stressors such as HIV infection, pregnancy, and smoking cessation. He continues to explore cultural differences in health and is heavily involved in pedagogical research directed toward improving teaching and student learning.

He has received numerous local, state, and national grants for his research in health psychology and social psychology regarding cultural differences in stress, social support, smoking cessation, body image, and impression formation. He has published articles in a variety of scholarly journals, including the *American Psychologist, Psychological Review,* and *Personality and Social Psychology Bulletin,* and is a frequent presenter at national and international conferences. He is the author, coauthor, or editor of fourteen other books including the *Handbook of Health Psychology* (2019, with Tracey Revenson), a two-volume *Multicultural Approaches to Health and Wellness in America* (2014), *Easyguide to APA* [American Psychological Association] *Style* (2017, with Eric Landrum and Beth Schwartz), *Culture & Mental Health: Sociocultural Influences on Mental Health* (2009, with Sussie Eshun), *Getting Culture: Incorporating Diversity across the Curriculum* (2009, with Loreto Prieto), and *Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* (2009, with Nancy Chick and Aeron Haynie). Dr. Gurung is also a dedicated teacher and has interests in enhancing faculty development and student understanding. He is codirector of the University of Wisconsin (UW) System Teaching Scholars Program, has been a UW–Green Bay teaching fellow and a UW System teaching scholar. In 2017 he won the American Psychological Foundation's prestigious Charles L. Brewer Award for Distinguished Teaching in Psychology. He also has won the Carnegie Association's Wisconsin Professor of the Year (2010), the UW System Regent's Teaching Award (2011), the UW–Green Bay Founder's Award for Excellence in Teaching Excellence in Scholarship, and the UW Teaching at Its Best, Creative Teaching, and Featured Faculty awards. He has organized statewide and national teaching conferences and is an active member and past president of the Society for the Teaching of Psychology (American Psychological Association [APA]-Division 2). He is an elected fellow of the American Psychological Association and Association for Psychological Science and will be the president of the Psi Chi International Honor Society in Psychology in 2019.

When not reading, writing, or helping people stay calm, Regan enjoys culinary explorations, travel, and immersing himself in his son's and daughter's latest pursuits.

PART I

FOUNDATIONS OF HEALTH PSYCHOLOGY

CHAPTER 1

WHAT IS HEALTH?

Cultural and Historical Roots

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Chapter 1 Outline

MEASURING UP

HOW HEALTHY ARE YOU?

1. In general, would you say your health is
    a. Excellent
    b. Very good
    c. Good
    d. Fair
    e. Poor

2. How TRUE or FALSE is **each** of the following statements for you?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
I seem to get sick a little easier than other people	1	2	3	4	5
I am as healthy as anybody I know	1	2	3	4	5
I expect my health to get worse	1	2	3	4	5
My health is excellent	1	2	3	4	5

3. During the **past 4 weeks**, how much of the time has **your physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?
    a. All of the time
    b. Most of the time
    c. Some of the time
    d. A little of the time
    e. None of the time

WHAT IS THIS? WHY DOES IT MATTER?

These are items from the general health subscale of the 36-Item Short Form Health Survey (SF-36). RAND developed this scale as part of the Medical Outcomes Study (MOS), a multiyear, multisite study to explain variations in patient outcomes. This is a very common measure of self-rated health (Benyamini, 2016).

▼ Ponder This

How do you define health, and what signifies being healthy?

Could how you think about life be as important as the way your brain is wired?

If you like health and helping people can health psychology be the career for you?

Are you healthy? Sounds like a simple question to answer, right? Take a moment to consider it. What is your answer? If you are like most people, you probably think that you are reasonably healthy. Even if you do not think you are like most people, you may be more like most people than you know. Be warned, most people do not think that they are like most other people and this has health consequences, as you will see later. How did you arrive at your answer? Did you quickly drop down on the floor and see how many push-ups or sit-ups you could perform and how fatigued the exercises made you? Did you put down this book (or e-reader) and time how long it took you to sprint to the corner and back? Maybe you put a finger on your wrist and took your pulse. More than likely, if you do not presently have a cold or other illness, if you have not recently stumbled and twisted an ankle, or if you do not have any other physical ailment, you probably answered the opening question with a statement like, "Yes, pretty healthy, I guess."

RESEARCHER SPOTLIGHT

Dr. Yael Benyamini has a PhD in health and social psychology and teaches assessment at Tel Aviv University in Israel. She has a great chapter on self-rated health assessment (Benyamini, 2016; see Essential Readings).

For most people living in the United States, basic indicators of good health include the absence of disease, injury, or illness; a slow pulse; the ability to perform many physical exercises; or the ability to run fast. The self-report health measure the chapter opens with is one simple way to measure your health (Benyamini, 2016). You may be surprised to learn that these all represent only one general way of being healthy, the one supported by Western medicine and as seen on multiple shows on Netflix, Hulu, and Amazon Prime, not to mention on the big screen. The definition of what is healthy varies from person to person and is strongly influenced by his or her way of thinking and his or her upbringing. For some, being happy signifies good health. For others, being spiritually satisfied signifies good health. Are some people right and others wrong? What are the best ways to measure health and what are the different factors that influence how healthy we will be? In particular, what are the psychological and sociocultural factors that influence health?

The United States is a diverse nation with approximately 321 million citizens (U.S. Census Bureau, 2017). Not all Americans are similarly healthy (Arcaya & Figueroa, 2017; Gurung, 2014). For example, death rates for African Americans are significantly higher than those of Americans overall due to heart disease, cancer, diabetes, HIV, and homicide (Edwards et al., 2019; Noonan, Velasco-Mondragon, & Wagner, 2016). Corresponding to such differences, the U.S. health-care system has been making active attempts to broaden approaches toward health care in order to fulfill the needs of the diverse population (Schooler & Baum, 2000) and advance knowledge about different cultures or cultural competence (see below, Purnell & Pontious, 2014). Unfortunately, the differences between cultural groups is getting worse due to several trends such as changing health-care technologies, health-care access and reform policies (e.g., Affordable Care Act), widening gaps in income and education, and environmental hazards (Arcaya & Figueroa, 2017). There are critical cultural variations in the conceptualization, perception, health-seeking behaviors, assessment, diagnosis, and treatment of abnormal behaviors and physical sickness.

Many Americans also have different answers to questions about health. For example, ask a child what being healthy is, and it is almost certain that his or her answer will be different from that of an older person. Someone earning less than $13,000 a year will probably answer differently than someone making more than $100,000 a year. A Catholic will probably answer differently than a Buddhist or a Hindu or a Muslim (Von Dras, 2017). Essentially, a person's cultural background, ethnicity, age, gender, and educational level make substantial differences in how he or she answers. Furthermore, our many different actions influence our health—things that often vary by culture as well. The amount of sweetened carbonated beverages that you drink can make a difference; younger people tend to drink more of these types of beverages than older people do.

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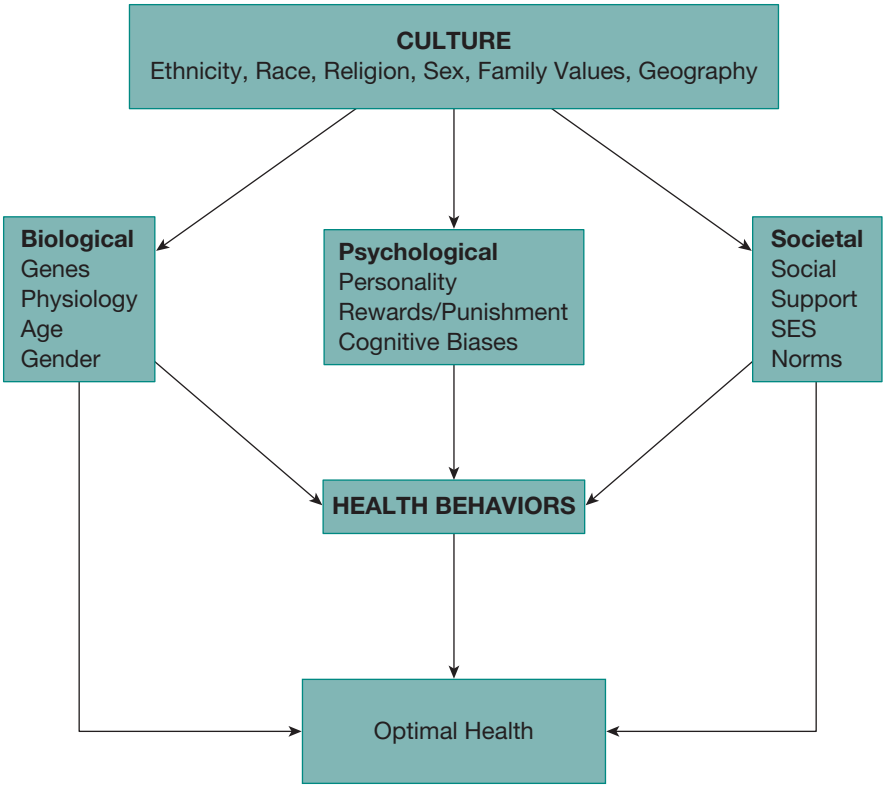
▲ **Different Pictures of Health.** These individuals may seem healthy to the naked eye. It is important to also look beyond mere physiological health and the lack of disease and consider mental, spiritual, and emotional health.

What you eat, including the amount of fast food you eat, makes a difference too. As with beverage consumption, some ethnic groups tend to eat more fast food than other groups.

In fact, the answer to the simple question, "Are you healthy?" can vary according to where you live, how old you are, what your parents and friends think constitutes health, what your religious or ethnic background is, and what a variety of other factors indicate about you (Gurung, 2012). If you live in California, where the sun shines most of the time, your health habits are probably different than they would be if you live in Wisconsin, where it is often overcast (Nelson et al., 2002). Though both states are leading producers of dairy products in the United States, statistically, Wisconsinites tend to weigh significantly more than Californians. (Is it too much cheese? Is it the lack of sun?) Factors such as where you live, your age, or your ethnicity interact with others to influence what you do and how healthy you will be. "**Culture**" is the term that adequately captures all these different elements that influence health. Thus, the focus of this book is on how our cultural backgrounds influence our health, shape healthy behaviors, prevent illness, and enhance our health and well-being. The schematic diagram in Figure 1.1 provides a map for the route we will take in this book.

▼ FIGURE 1.1

Health and Its Correlates



Notice (Figure 1.1) how many different pathways can determine health and how culture is often the basis of biological, psychological, and societal differences. In fact, many of the health disparities, "differences in health that are not only unnecessary and avoidable, but in addition, are considered unfair and unjust" (Whitehead, 1992, p. 433), are due to cultural factors (Centers for Disease Control and Prevention [CDC], 2015; Office of Disease Prevention and Health Promotion, 2014). There are many examples of disparities: for example, African Americans' heart disease death rates are more than 40% higher than European Americans' death rates (Edwards, 2018). The suicide rate among American Indians is 2.2 times higher than the national average, and those living below the poverty level are significantly more depressed that those higher in **socioeconomic status** (SES; Harris, 2017; King, 2017). In general, health care, mental health, and disease **incidence rates** vary significantly across cultural groups (Abradio-Lanza, 2018; Ruiz, Steffen, Doyle, Flores, & Price, 2019). The Institute of Medicine (IOM) performed an assessment on the differences in the kinds and quality of health care received by American racial and ethnic minorities and nonminorities and recommended specific actions (American Medical Association, 2012). See Table 1.1 for the full recommendations. Consequently, this book takes a cultural approach to discussing health psychology.

To begin, I discuss the dissimilar ways we define and measure health and culture. Next, the discussion introduces you to the field of health psychology and provides an overview of what

▼ TABLE 1.1

Institute of Medicine (IOM) recommendations to reduce differences in the kinds and quality of health care received by U.S. racial and ethnic minorities and nonminorities.

RECOMMENDATIONS
General Recommendations
Recommendation 2-1: Increase awareness of racial and ethnic disparities in health care among the public as well as key stakeholders.
Recommendation 2-2: Increase health-care providers' awareness of disparities.
Legal, Regulatory, and Policy Interventions
Recommendation 5-1: Avoid fragmentation of health plans along socioeconomic lines.
Recommendation 5-2: Strengthen the stability of patient–provider relationships in publicly funded health plans.
Recommendation 5-3: Increase the proportion of underrepresented U.S. racial and ethnic minorities among health professionals.
Recommendation 5-4: Apply the same managed care protections to publicly funded HMO enrolees that apply to private HMO enrolees.
Recommendation 5-5: Provide greater resources to the U.S. Department of Health and Human Services (DHHS) Office for Civil Rights to enforce civil rights laws.
Health Systems Interventions
Recommendation 5-6: Promote the consistency and equity of care through the use of evidence-based guidelines.
Recommendation 5-7: Structure payment systems to ensure an adequate supply of services to minority patients, and limit provider incentives that could promote disparities.
Recommendation 5-8: Enhance patient-provided communication and trust by providing financial incentives for practices that reduce barriers and encourage evidence-based practice.
Recommendation 5-9: Support the use of interpretation services where community need exists.
Recommendation 5-10: Support the use of community health workers.
Recommendation 5-11: Implement multidisciplinary treatment and preventive care teams.

RECOMMENDATIONS
Patient Education and Empowerment
Recommendation 5-12: Implement patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions.
Cross-Cultural Education in the Health Professions
Recommendation 6-1: Integrate cross-cultural education into the training of all current and future health professionals.
Data Collection and Monitoring
Recommendation 7-1: Collect and report data on health-care access and use by patients' race, ethnicity, SES, and, where possible, by their primary language.
Recommendation 7-2: Include measures of racial and ethnic disparities in performance measurement.
Recommendation 7-3: Monitor progress toward the elimination of health-care disparities.
Recommendation 7-4: Report racial and ethnic data by Office of Management and Budget (OMB) categories but use subpopulation groups where possible.
Research Needs
Recommendation 8-1: Conduct further research to identify sources of racial and ethnic disparities and assess promising intervention strategies.
Recommendation 8-2: Conduct research on ethical issues and other barriers to eliminating disparities.

Source: Reprinted with permission from "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care, 2003", by the National Academy of Sciences, Courtesy of the National Academic Press, Washington, DC.

health psychology covers. Finally, the chapter concludes with career and graduate training information related to health psychology. We look at how each of us is multicultural, especially focusing on differences in family structure, and how sociodemographic variables such as gender and income level are critical aspects of culture.

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▲ **Key Health Behaviors.** Getting six to eight hours of sleep, being physically active, eating a nutritional meal, and not smoking are all important health behaviors that can prolong life. Even stretching frequently is a good thing.

WHAT IS HEALTH?

Social media shares and newspaper headlines scream the latest health findings almost every day. Eat a big breakfast (Kahleova, Lloren, Mashchak, Hill, & Fraser, 2017), sugar causes most of society's health issues (Taubes, 2017), running barefoot might be better for you than running in shoes (Daoud et al., 2012), and diets are not the answer to the obesity crisis (Mann et al., 2007). Not only do news agencies report on countless research efforts every day, but much of the information presented is contradictory. Much of the media blitz capitalizes on the fact that people, in general, seem to be paying more attention to getting and staying healthy. Supermarket shelves overflow with supplements to enhance quality of life, and bookstores brim with recommendations on how to live better. The answer to the question, "What is health?" depends on who you ask. Let's start with the **WHO (World Health Organization)**. This organization defines **health** as a state of complete physical, mental, and social well-being (WHO, 1948/2017).

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▲ **Key Health Behaviors.** Getting a good night's sleep is one of the best health behaviors to practice.

As you can see, this is a general definition and encompasses almost every aspect of life. One aspect that could be added is the word "spiritual." Definitions such as this one are relatively common when we look at books or magazines that cover health in a nonspecific way. One way to see health is as a continuum with optimal health (broadly defined) at one end and poor health at the other, sitting on two ends of a great big teeter-totter (Figure 1.2). The number of healthy things we do in life determines our relative position (closer to optimal health or closer to death) at a particular moment. The healthy things we do (e.g., eat and sleep well, exercise, and take time to relax) make the optimal health side of the teeter-totter heavier. The unhealthy things we do (e.g., get stressed, smoke, and drink excessively) make us tilt toward the poor health side of the balance.

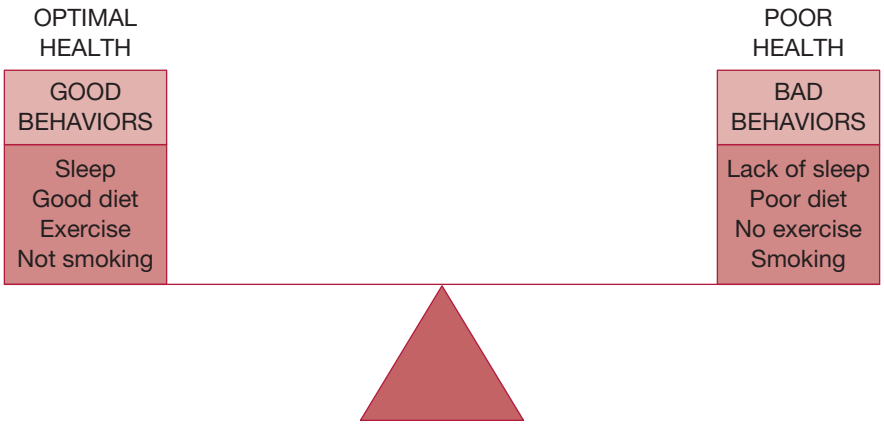
This imagery also captures how we sometimes rationalize some unhealthy behaviors by practicing some healthy behaviors to ensure the teeter-totter is leaning in the right direction and we are moving toward the optimal end of the spectrum. Of course, this analogy can only go so far: If you have smoked for 20 or 30 years, it will be quite difficult to compensate the balance. Furthermore, it is difficult to compare the extent to which different behaviors translate into longevity. Just because you do not smoke does not mean that you can drink excessively. Just because you exercise a lot does not mean you can afford to avoid a nutritional diet. Keeping your life tilted toward optimal health is a daily challenge and a dynamic process.

CROSS-CULTURAL DEFINITIONS OF HEALTH

In Western medical circles, you are healthy if disease is absent. Of course, this definition focuses primarily on the physical or biological aspect of life; this approach taken by Western medicine is often referred to as the **biomedical approach** to health. Non-Western societies have a different understanding of health. For example, in **Traditional Chinese Medicine** (TCM), health is the balance of yin and yang, the two complementary forces in the universe (Kaptchuk, 2000;

▼ FIGURE 1.2

Health Is a Continuum



Santee, 2017). Yin and yang are often translated into hot and cold (two clear opposites), referring to qualities and not temperatures. For optimal health you should eat and drink and live your life with equal amounts of hot qualities and cold qualities. Balancing hot and cold is a critical element of many different cultures (e.g., Chinese, Indian, and even Mexican), although some of the foods that constitute each vary across cultures. Some hot foods include beef, garlic, ginger, and alcohol. Some cold foods include honey, most greens, potatoes, and some fruits (e.g., melons, pears). Chapter 3 in this book covers a complete description of diverse approaches to health.

Other cultures also believe that health is the balance of different qualities (Table 1.2) (Galanti, 2014). Similarly, ancient Indian scholars and doctors defined health as the state in which "the three main biological units—enzymes, tissues, and excretory functions—are in harmonious condition and when the mind and senses are cheerful" (Agnihotri & Agnihotri, 2017, p. 31). Referred to as **Ayurveda**, which means knowledge of life, this ancient system of medicine focuses on the body, the sense organs, the mind, and the soul (Svoboda, 2004). Another way of looking at health is the approach of Mexican Americans, the largest non-European ethnic group in the United States. Mexican Americans believe that there are both natural biological causes for illness (similar to Western biomedicine) and spiritual causes (Tovar, 2017). Though Mexican American patients might go to a Western doctor to cure a biological problem, they trust only *curanderos,* or healers, to cure spiritual problems (Arellano & Sosa, 2018).

▼ TABLE 1.2

Some Cross-Cultural Definitions of Health

Culture	Definition
Western	Absence of disease
Chinese	Balance of yin and yang Balance of hot and cold
Indian	Balance of mind, body, and spirit
Mexican	Balance of body types and energies
American Indian	Spiritual, mental, and physical harmony Harmony with nature
Hmong	Prevention of soul loss
Ethiopian	Prevention of spirit possession

American Indians do not draw distinctions between physical, spiritual, and social entities or between religion and medicine (Peters, Green, & Gauthier, 2014). Instead, most tribes (especially the Navajo) strive to achieve a balance between human beings and the spiritual world (Alvord & Van Pelt, 2000). The trees, the animals, the earth, the sky, and the winds are all players in the same game of life. Most of the world's cultures use a more global and widespread approach to assessing health instead of just looking at whether or not disease is absent to determine health (as the biomedical model and most Western approaches do). We will discuss each of these different approaches to health in more detail in the Chapter 3.

Synthesize, Evaluate, Apply

- How has our view of the mind–body connection changed over time?
- What is the best way to view health? What do you feel is the best definition?
- How do different cultures vary in their definition of health?

WHY IS CULTURE IMPORTANT?

One easy answer to the question, "Why is culture important?" is to explain why there are significant differences in the health of European Americans and non–European Americans. However, the cultural differences predict and relate to more than health differences.

What do your mother, your best friend, and your religion have in common? They each constitute a way that you learn about acceptable behaviors. Take parents, for example. Whether we do something because they told us to (e.g., "Eat your greens!") or exactly because they told us not to (e.g., "Don't smoke!"), they have a strong influence on us. If our friends exercise, we will be more likely to exercise. Similarly, religions have different prescriptions for what individuals should and should not do. Muslims should not eat pork or drink alcohol (Amer, 2017). Hindus are prohibited from eating beef (Agnihotri & Agnihotri, 2017). Even where we live can determine our habits and can help predict the diseases we might die from as studied in detail by the area of health geography (Greenhough, 2011). Parents, peers, religion, and geography are a few of the key determinants of our behaviors and are examples of what makes up our culture.

Dimensions of Culture

If you think that there are many ways to describe health, then prepare for the challenge of defining culture. At first, it does not seem too difficult, but both trained psychologists and laypeople often mean different things when they discuss culture. Many use the words "culture," "ethnicity," and "race" interchangeably (see Figure 1.3). Beyond these specific examples, people also think culture represents a set of ideals or beliefs or sometimes a set of behaviors. Behaviors and beliefs are other accurate components of what culture is and are often amplified in cultural stereotypes. In the cable show *Silicon Valley,* Gavin the stressed-out devious head of Hooli, a major technology firm, has an Indian (East Asian) spiritual guide to keep him calm. The guru is a stereotypical Indian mystic complete with loose robes, beads, and calming mantras. Going back to the time of the Beatles, Westerners flocked to India to meditate and follow the teaching of holy men, and this stereotype makes it into many American shows. Many non-White actors such as as Kal Penn (of *Harold and Kumar* fame) play on these stereotypes to comic effect. The idea is that members of certain cultures share the beliefs and values of others in that culture.

Although we rarely acknowledge it, culture has many dimensions. Many of us limit discussions of culture to race or ethnicity. Look at what happens if you ask someone what she thinks the dominant culture around her is. In most cases, she will identify an ethnic category. Someone in Miami might respond that the dominant culture in her area is Cuban. Someone in Minnesota might say it is Scandinavian. When we pose the question in Green Bay, Wisconsin, people often say it is Hispanic or Hmong (people from Laos, near Vietnam). Or they sometimes say American Indian because they think we asked which ethnic group is most visible in town. In reality, culture can be a variety of things. The dominant culture in Green Bay is Catholic, but people rarely realize that religion constitutes a form of culture as well. You could also say being a Packers fan is the dominant culture Green Bay? Is there an American culture? What do you think?

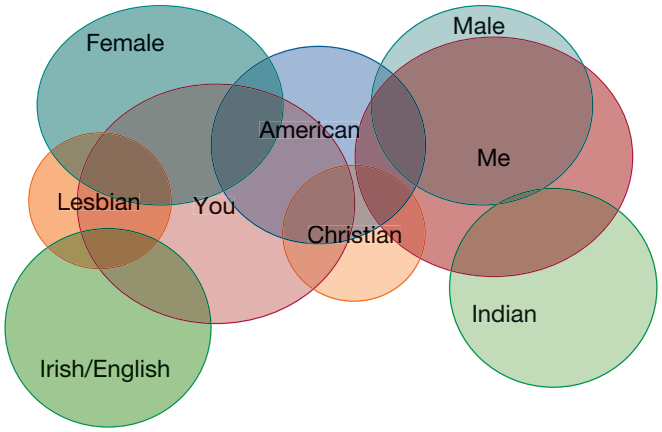
Defining Culture

Culture can be defined as "a unique meaning and information system, shared by a group and transmitted across generations, that allows the group to meet basic needs of survival, by coordinating social behavior to achieve a viable existence, to transmit successful social behaviors, to pursue happiness and well-being, and to derive meaning from life" (Matsumoto & Juang, 2017, p. 4). Culture can also include similar physical characteristics (e.g., skin color), psychological characteristics (e.g., levels of hostility), and common superficial features (e.g., hairstyle and clothing). Culture is dynamic because

▼ FIGURE 1.3

Defining Culture

Our race, ethnicity, and nationality are all interconnected and part of our "culture."



some of the beliefs held by members in a culture can change with time. However, the general level of culture maintains stability because the individuals change together. The beliefs and attitudes can be implicit, learned by observation, and passed on by word of mouth; or they can be explicit, written down as laws or rules for the group to follow. The most commonly described objective cultural groups consist of grouping by ethnicity, race, sex, and age. Look at Figure 1.4 for a summary of the different types of cultures and characteristics. There are more subjective aspects of culture that we cannot see or easily link to physical characteristics. For example, nationality, sex/gender, religion, and geography also constitute different cultural groups, each with its own set of prescriptions for behavior.

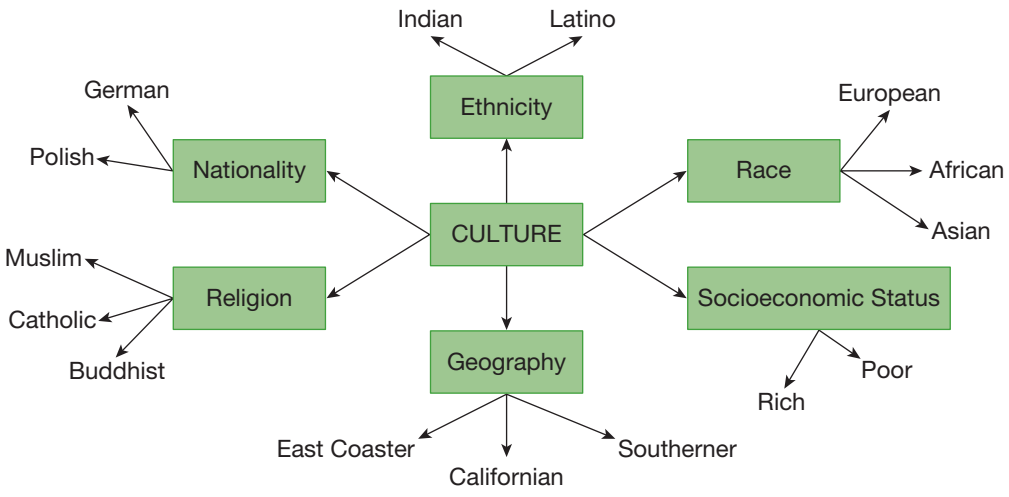
A broader discussion and definition of culture is important for a full understanding of the precedents of health behaviors and health. Culture includes ethnicity, race, religion, age, sex, family values, geography (the region of the country), and many other features. High school adolescents belong to a different culture than do college students. Even in college, there are different cultures. Some students live in dorms, and some live in off-campus apartments. On campus, also, there are athletes and musicians, among many others; each group provides different prescriptions for what is correct behavior. For instance, it is normal for the athletes to exercise a lot. Aspects of the specific culture we belong to correspondingly influence each of our health behaviors. Understanding the dynamic interplay of cultural forces acting on us can greatly enhance how we face the world and how we optimize our way of life. This book will describe how such cultural backgrounds influence the different behaviors we follow that can influence our health.

There are probably as many different definitions for culture as there are for health. For example, Soudijn, Hutschemaekers, and Van de Vijver (1990) analyzed 128 definitions. A good way to comprehend the breadth of culture is to see if you know what your own is. For the next 30 seconds, think of all the ways that you would answer the question, Who am I? Write down or just think of every response that comes to mind in the space provided in Figure 1.5.

You will notice that you use many labels for yourself. Social psychologists call this the "Who am I?" test (not a very inventive name, obviously). They use it to measure how people describe themselves. You probably generated a number of different descriptors for yourself, and your responses provide a number of different clues about yourself and your culture. Your answers may have included your religious background (e.g., I am Lutheran), your sex (e.g., I am male), or your major roles (e.g., I am a student, a daughter, or a friend). You might have even mentioned your nationality (e.g., I am American), your race (e.g., I am Black), or your ethnicity (e.g., I am Asian American). Therefore, if you really took the 30 seconds suggested, you should be staggering

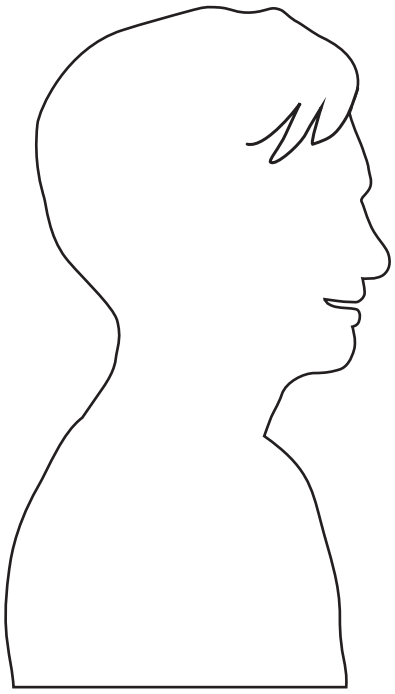
▼ FIGURE 1.4

The Variety of Cultures



▼ FIGURE 1.5

Who are you? Jot down the words you use to describe yourself in the space below.



under the realization that you actually have a lot more culture than you previously thought. Before doing these listing exercises, many European Americans have said things like, "I do not have any culture. I'm just White." Part of the exciting thing about life is that every one of us has different experiences and backgrounds, and we will keep these backgrounds at center stage as we discuss health behaviors and health.

Profile of a Multicultural America

What does it mean to be American? The presidential race of 2016 brought race and **sex,** two of the most salient and visible forms of cultural diversity, to the fore. For the first time in the history of the United States, a woman, Hillary Rodham Clinton, was a candidate for president. For 8 years prior, Barack Hussein Obama served as the first African American president. The months of campaigning were often accompanied by discussions of not just positions and platforms but also gender, sexual orientation, and race and ethnicity. Pollsters paid close attention to how women, Latinos, or LGBTQ (lesbian, gay, bisexual, transgender, and queer or questioning) Americans would vote. For the first time in many years people had to confront the fact that for all of America's history presidents have been White men. Is that profile what it means to be American? Does being American mean being White? Of course, it does not, just as being male is not a component of American. American citizens have many different skin colors, religions, and styles of dressing, and that is only the beginning of our country's diversity. America consists of a variety of cultural groups; it is critical to remind ourselves that not only is the country multicultural, but we ourselves are also multicultural.

The most recent census data lists the population of the United States at approximately 321 million. That number can be broken down along different cultural lines. An example of a cultural group that most people tend to think of first is ethnicity. Of that 321 million population, approximately 13% are African American or Black, approximately 4% are Asian American (including Americans of different Asian backgrounds such as Chinese, Japanese, Korean, and Indian), and approximately 1% are American Indians or Native Americans. The remaining 82% of the population are considered European American or White and include people of Latin American and Spanish ancestry. Commonly referred to as Latinos, the preferred term, or Hispanic (a term applied to this ethnic group by the U.S. government in the 1980 Census), the truth is that people in this same group have their own names for their groups depending on which part of the United States they live in and their specific country of origin (Arellano & Sosa, 2017). For example, Texans and those in the Southeast prefer the word "Hispanic," New Yorkers use both "Hispanic" and "Latino," and Chicagoans prefer "Latino" (Shorris, 1992). Even the term "Mexican American," part of the general classification Hispanic, includes people of Cuban descent, those from Puerto Rico, and Central or South America (Tovar, 2017). Ethnicity is just one way to divide cultural lines (see Figure 1.6).

A second type of culture is religion. When you look at our planet, the majority of humans are Christians (Pew Research Center, 2017), accounting for 31.2%. Muslims comprise 24.1%. Surprisingly, 16% are unaffiliated. Hindus comprise 15.1%. In the United States, 71% are Christian and 22.8% are unaffiliated. Importantly, some well-known religious groups are not present in large numbers: Only about 2% of Americans are Jewish. Testifying to the fact that we as human beings tend to overestimate the actual occurrence of something just based on the extent to which we hear about it (referred to as the **availability heuristic**),

Muslims only constitute a minute part of the U.S. population (0.9%). Because of political events (e.g., trouble in the Middle East and the wars in Afghanistan and Iraq, areas whose populations are predominantly Muslim), many Americans believe that there are many Muslims in the United States (and unfortunately have prejudices against them), when in fact they are a very small minority.

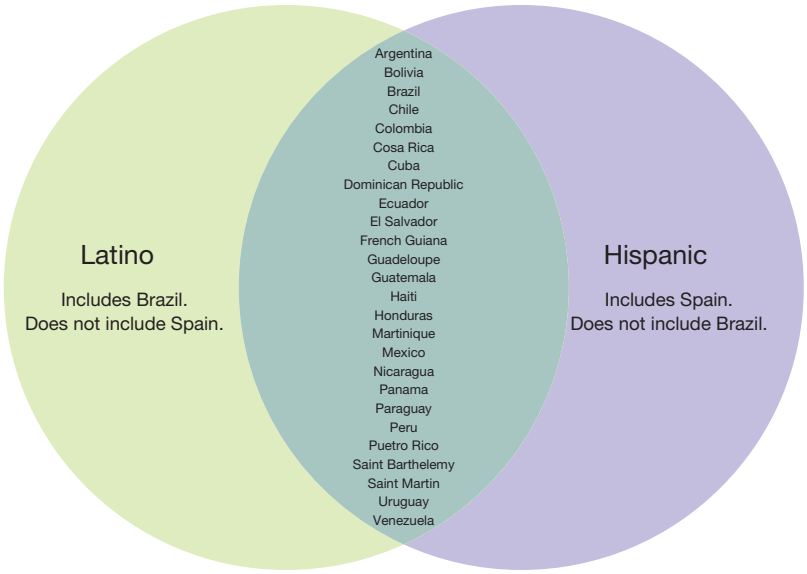
We can also think about culture in terms of ethnicity, different age groups, socioeconomic status (SES), or different geographical regions. People living in different parts of the country have different health behaviors (e.g., the Southeastern states such as Kentucky and Virginia show some of the highest levels of smoking). Different age groups—children, adolescents, teenagers, young adults, or older adults—experience different stressors. When you break down the U.S. population along different lines, you realize that there are many such groups and that each has its own specific health issues. The numbers in each of these groups also change over time. For example, the population of Americans over age 65 is projected to double from 36 million in 2003 to 72 million in 2030, and to increase from 12% to 20% of the population in the same time frame (He, Sengupta, Velkoff, & DeBarros, 2005). This difference in the age profile can have implications for each different group's health care.

Two Key Areas of Diversity

Two of the most important aspects that define cultural groups, often discussed as diversity, are **socioeconomic status** (SES) and sex. SES, often measured by combining income and education level (e.g., Tackett, Herzoff, Smack, Reardon, & Adam, 2017), is becoming one of the most important and widely studied constructs in health psychology (Ruiz et al., 2019). Almost any study done on this topic shows that poverty and illness tend to go together, often linked by factors such as access to health care and insurance. SES can also influence and underlie relationships among other factors such as race, parenting, and cardiovascular health. For examples, Black men exposed to positive parenting during adolescence had more ideal cardiovascular health based on American Heart Association guidelines (Matthews et al., 2017). SES also relates to body mass index (BMI) in young adults (Bradshaw, Kent, Henderson, & Setar, 2017).

▼ FIGURE 1.6

Culture and Ethnicity



The poor (currently those with a yearly income equal to or less than $23,050 for a family of four, U.S. Department of Health and Human Services [DHHS], 2017) make up a large percentage of Americans without health insurance. If you have money, you can afford healthy food and higher-quality health services. Of particular importance to taking a cultural approach to health is that the cultural make-up of those considered poor is changing. For example, Indiana's Manchester University and Massachusetts's Bentley University examined poverty rates and income levels from 1995 to 2006 for several U.S. population groups. They found that the disparity in poverty rates between European Americans and other ethnic groups had decreased 7 of the past 11 years, dropping 23% overall since 1995. Whereas European American poverty is remaining relatively stable (8.2% in 2006 vs. 8.5% in 1995), the poverty rates for African Americans dropped from 29.3% to 24.2%, for Hispanics from 30.2% to 20.6%, and for Asian/Pacific Islanders from 14.6% to 10.1% (Wollman, Yoder, Brumbaugh-Smith, & Haynes, 2007). Such changes can influence usage of health services and consequently a number of other factors that health psychologists study.

Socioeconomic status is related to a higher occurrence of most chronic and infectious disorders and to higher rates of nearly all major causes of mortality and morbidity (Ruiz et al., 2019). In one study SES differences accounted for 60% of the racial differences in death rates (Thorpe et al., 2012). Even the neighborhood in which you live can be important (Yao & Robert, 2011). Neighborhood SES has been associated with poorer health practices (Petridou et al., 1997) and a variety of other health conditions such as coronary heart disease (Walsemann, Goosby, & Farr, 2016). The relationship between SES and health is also direct: usually, the more money you have, the better your health. This relationship is seen in children and in older adults alike. Several ways of measuring SES have been proposed, but most include some quantification of family income, parental education, and occupational status. One common measure, the Hollingshead Four-Factor Index of Socioeconomic Status, uses parents' education level and occupational status (e.g., Matthews et al., 2017). Research shows that SES is associated with a wide array of health, cognitive, and socioemotional outcomes with effects beginning before birth and continuing into adulthood (Gottfried, Gottfried, Bathurst, Guerin, & Parramore, 2003). Even perceptions of how well-off your family is (i.e., subjective perceptions of familial SES) have been found to influence health (Goodman, Huang, Schafer-Kalkhoff, & Adler, 2007).

Many differences in health are due to sex, which is an innate, biological characteristic (Rosenthal & Gronich, 2019). For instance, men are more likely to die after intracerebral hemorrhages, a type of stroke (Marini et al., 2017), older women are more likely to benefit from exercise than are older men (Barha, Davis, Falck, Nagamatsu, & Liu-Ambrose, 2017), men and women react differently to hospitalization (Shlomi Polachek et al., 2017), in their need for health information (Stewart, Abbey, Shnek, Irvine, & Grace, 2004), and to illness in general (Westbrook & Viney, 1983). Sex often interacts with other elements of culture such as race and ethnicity (Zissimopoulos, Barthold, Brinton, & Joyce, 2017). For example, many Korean American males believe heavy drinking is associated with Korean traditions such as Poke-Tang because they encourage men but not women to drink alcohol (Sung Hyun & Wansoo, 2008). In the Latino community there are sex differences in relation to health seeking behavior, especially substance use (Abradio-Lanza, 2018).

Although women live longer than men (Murphy, Xu, & Kochanek, 2012), they report symptoms of illness more frequently and use health services to a greater extent (Waldron, 1991). The once-common belief that women have poorer health in general than men has been challenged (Macintyre, Hunt, & Sweeting, 1996). There are both pros and cons to being female. The female sex hormone estrogen has a protective effect against cardiovascular illness in women younger than age 50 (Orth-Gomer, Chesney, & Wegner, 1998). On the other

hand, women are more likely to be victims of violence and sexual assault (U.S. Department of Justice, 2015) and have body image, eating, and diet problems (Harrison, Taylor, & Marske, 2006). It is interesting to note that although body dissatisfaction is higher in girls than boys, the negative impact of body dissatisfaction on adolescents' quality of life does not differ by sex (Griffiths et al., 2017).

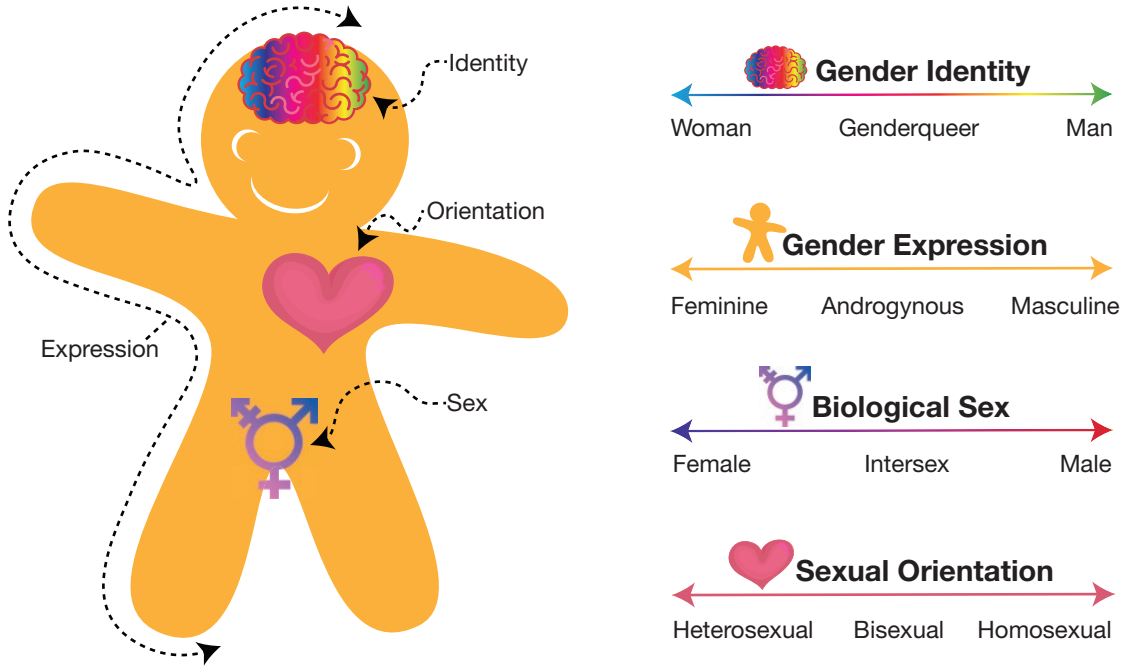
Boys and men are not always better off (Mitchison et al., 2017). Boys have body image issues as well, often spurred on by the media in general and some media (e.g., video gaming magazines) in particular (Harrison & Bond, 2007). Sometimes these differences are due to gender, which includes behaviors determined by socialization, and learning of social roles. For example, sociological factors related to gender include the extra demands of balancing different roles (e.g., being the primary caregiver for children and working outside the home). Most studies acknowledge these differences by statistically controlling for sex and implicitly (and sometimes explicitly) treating biological sex as a proxy for gender. Remember that sex and gender are not identical constructs, although the two are often treated interchangeably (Pryzgoda & Chrisler, 2000). In fact, biological sex is also different from sexual orientation. Figure 1.7 shows the differences between these terms.

ADVANCING CULTURAL COMPETENCE

There are many different cultural approaches to health, as you will see in Chapter 3. It is of great importance for health psychologists, health-care workers, and the administrations that support them to be culturally aware. Table 1.3 provides a summary of key recommendations for health-care administrators (Gurung, 2012). Not all clinicians and health-care workers have received the necessary instruction to be culturally competent, but there are some easy

▼ FIGURE 1.7

The Genderbread Person



ways to be prepared. Perhaps the most helpful model of cultural competence is the Purnell Model of cultural competence (Purnell, 2009). The model posits 12 main cultural domains that a clinician should be aware of and should attempt to learn about for each client. Chapter 3 illustrates the main domains and provides sample questions for the clinician to use to gain cultural competence.

It is important to acknowledge that many cultural variations exist within ethnic communities. Knowing how different cultural groups approach health and having a better understanding of how factors such as acculturation are important can help clinicians, health-care workers, and others with an interest in how lifestyle decisions are made to be more culturally competent. The efforts to increase cultural competency in the treatment of mental and physical health are promising, but the wider health-care arena needs to pay attention to the causes of health disparities and the role played by multicultural approaches to health (Purnell et al., 2011). We need a better connection between health care and the community so individuals can seek out treatments that best fit their cultural needs (Rogers, 2010); in so doing we can reduce the manifold health disparities.

A person's culture has a major impact on behaviors that influence health. Culture influences some explicit health behaviors. For example, how much do we exercise? Do we drink or smoke? Do we eat well? Culture also influences a whole range of behaviors that indirectly influence our health. For example, how do we form relationships? How many close friends do we have and do we call on them when we are under stress or in need?

HEALTH PSYCHOLOGY'S BIOPSYCHOSOCIAL APPROACH

An understanding of the different definitions of culture becomes a useful aid to study health and to examine why we do or do not do things that are good for us. Most behaviors that influence health—whether healthy behaviors such as physical activity and eating nutritionally balanced diets or unhealthy ones such as smoking or drinking excessively—depend heavily on the culture in which we grew up. If both of your parents exercised, there is a high probability that you will exercise as well. The fact that behavior is influenced by many different factors outside of the individual is a critical aspect on which health psychologists focus. We will

▼ TABLE 1.3

Recommendations for Fostering Cultural Sensitivity in Health-Care Organizations and Clinics

1. Post pictures representing the diversity of patient and staff throughout the organization.
2. Make cultural resources reflecting patient population available to staff.
3. Recruit bilingual staff.
4. Initiate diversity classes for administrators, professionals, and other care providers.
5. Initiate mentoring programs for culturally diverse staff.
6. Make sure culturally appropriate toys are available in pediatric settings.
7. Provide pain scales in the language of patients.
8. Ensure food selections are available to match cultural needs.
9. Make cultural references readily available.
10. Teach staff to be responsible for their own cultural education.

Source: Adapted from Purnell et al. (2011).

discuss the exact ways that culture influences our development and health behaviors in more detail throughout this book.

How does the culture that we come from and surround ourselves with influence our health and behaviors? Answering this question with a concerted look at sources of influence outside a person (i.e., not just his or her biology or psychology) is a distinctive feature of the approach taken by health psychologists in studying health. In contrast to the biomedical approach of Western medicine described previously, health psychologists use a **biopsychosocial approach** (Revenson & Gurung, 2019; Suls & Rothman, 2004). Most terms used in psychology reflect common sense, and this term is no exception. This type of approach focuses on the biology or physiology underlying health; the psychology or thoughts, feelings, and behaviors influencing health; and the ways that society and culture influence health. The term "biopsychosocial" nicely reminds us that different components go together. For example, there is an association between depression, a mental health issue, and cardiovascular disease, a physical health issue (Carney & Freedland, 2017). The biopsychosocial approach goes beyond defining health as simply the absence of disease and instead forces us to focus on the broader range of the critical determinants of health (Suls & Rothman, 2004).

Smoking provides a good example of how the biopsychosocial model is useful. People might start smoking for psychological reasons such as thinking it makes them less stressed or because of personality traits (extroverts are more likely to smoke). People might also start to smoke due to pressure from their social networks or because of perceived cultural norms. Finally, addictions have a strong biological component in terms of their heritability.

Synthesize, Evaluate, Apply

- What are the components of a good definition of culture?
- What aspects of life are influenced by culture? How is culture transferred?
- What factors can influence responses to the "Who am I?" test?
- Why are cultural differences important in the context of health?

The Evolution of Health Psychology

Health psychology is conceptualized as a discipline encompassed by the general field of behavioral medicine together with medicine and an array of public health sciences and services (Freedland, 2017). In the recent past, health psychology emerged when humans starting dying more due to chronic diseases than due to famines, infections, and communicable diseases (epidemiologic transition; Omran, 2005). Going back even farther, the first two components of the biopsychosocial approach—focusing on biology and psychology—represent a current resolution to an ancient debate.

For centuries researchers, thinkers, and philosophers have questioned if and how the mind (and psychology) and the body (and our biology) are related and whether this relationship influences health. Is the mind connected to the body? Does it reside in the body? Where is the soul? Philosophers and scientists alike have debated these questions for millennia. Modern health psychology has roots in philosophy, 19th-century scientific discovery, medical and clinical psychology, epidemiology and public health, medical sociology and anthropology, and psychosomatic medicine (Friedman & Adler, 2007; Taylor, 2010).

The earliest evidence, such as oral traditions and pictorial evidence from early civilizations, suggests that the mind and body were originally considered to be one (Ellenberger, 1981). Spirits invading the body were thought to cause illness, and gruesome solutions such as trephination—the drilling of holes in the skull to release spirits—were practiced to make people healthy. This was not a highly successful method (nor was it likely to have been extremely popular with people developing illnesses).

Many of the world's early philosophies seemed to share the view that the mind and the body were intimately connected; about 5,000 years ago both the ancient Chinese Taoist sages and the ancient Indian practitioners of Ayurveda wrote about various ways the mind

could calm the body and vice versa (Agnihotri & Agnihotri, 2017; Santee, 2017). It is also certain that the rich traditions of medical practice in Egypt and the Middle East around 2000 B.C. (e.g., Mesopotamia, present-day Iraq) also focused on this connection (Amer, 2017; Udwadia, 2000). Greek philosophers around 300 to 400 B.C. challenged this notion and proposed that the mind and the body were separate. Greeks valued reason and rational thought—basic components of the Greek approach to life—more than the biology of the body, but hypothesized that basic bodily substances caused different diseases. For example, the Greek philosopher **Hippocrates**'s rational explanation of why people get sick concerned the balance of four major bodily fluids (something that he borrowed from Alcmaeon of Crete). He argued that people got sick or showed different symptoms if the amount of one fluid exceeded that of the others. If you had a lot of blood, you would be cheerful; if you had a lot of black bile, you would be sad or melancholic. History considers Hippocrates, who made many other contributions to the biological study of illness, the father of Western biomedicine. In fact, most doctors take an oath before they practice medicine, one of which is the Hippocratic Oath (Table 1.4).

Many centuries after Hippocrates the French philosopher **Rene Descartes** (1596–1650), famous for his argument, "I think therefore I am"— "je pense, donc se suis" in Descartes's original French, or "cogito ergo sum" in Latin —strengthened the Greek idea about the separation of the mind from the body. The hundreds of years that people believed that the mind was separate from the body helped medical science develop as scientists dissected dead bodies and increased our knowledge of human anatomy. The Greek **Galen** first pioneered the examination of the dead to find the cause of disease, working primarily on animals. Centuries later, the study of human anatomy was fine-tuned by Andreas Vesalius (1514–1564) and the Italian artist (and the prototypical Renaissance man) Leonardo da Vinci (1452–1519). Both drew detailed diagrams of the construction of the human body. Dissections came to a halt when the

▼ TABLE 1.4

The Modern Physician's Oath

I swear to fulfill, to the best of my ability and judgment, this covenant:
I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow;
I will apply, for the benefit of the sick, **all measures which are required**, avoiding those twin traps of overtreatment and therapeutic nihilism.
I will remember that there is art to medicine as well as science, and that warmth, sympathy and understanding may outweigh the surgeon's knife or the chemist's drug.
I will not be ashamed to say "I know not," nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.
I will **respect the privacy** of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death. If it is given me to save a life, all thanks. But **it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness** and awareness of my own frailty. Above all, I must not play at God.
I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.
I will prevent disease whenever I can, for prevention is preferable to cure.
I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body, as well as the infirm.
If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection hereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.

Source: Thttp://www.aapsonline.org/ethics/oaths.htm#lasagna.

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▲ **Cultural Influences on Behavior.** Our own health behaviors are largely dependent on the health behaviors of other individuals who share our cultural group.

Roman Catholic Church explicitly banned dissections, which it deemed unholy. Finally, Descartes brokered a deal with the Church resulting from a complex set of sociopolitical factors. Active antagonism had existed between the Church and science, but the declining power of the Church and the draining of Church resources due to the Inquisition made it easier for Descartes to convince the Holy Father to allow dissections. Descartes essentially argued that because the mind and body were separate, the mind and soul of a person left the body when the person died. Hence, only the biological body was left behind, and it was unimportant. The Church accepted this explanation, and human dissections began in earnest.

In the early 20th century psychology started to play a part in the examination of health. Part of the reason this involvement came so late is that psychology was not a field of study in its own right until then. If you think back to your introductory psychology class, you probably will remember that the German William Wundt founded the first psychology laboratory in 1879. The first book in psychology, *Principles of Psychology* by Harvard University psychologist **William James**, was published in 1897. In a precursor of sorts to the biopsychosocial model, James also wrote *Varieties of Religious Experience* (1902) that referred to spirituality, health, and psychology. Also in the late 1890s, **Sigmund Freud** first generated his ideas about the structure of the human mind. When one mentions Freud's name, people quickly think of couches, bearded psychologists, and other stereotypical Freudian artifacts. Yes, Freud did have clients lie on his couch while he sat behind them and listened to them speak. Yes, we often see pictures of him in a beard and most movie psychoanalysts are similarly bearded (e.g., *Analyze This*, *Girl on the Train*). These tidbits aside, Freud was one of the earliest health psychologists, though few would call him such (Karademas, Benyamini, & Johnston, 2016).

iStock.com/ efenzi

▲ **Cultural Influences on Behavior.** If many of your friends smoke and drink, you are more likely to do the same.

How did Freud revolutionize the way we look at illness? Freud was the first to draw attention to the possibility that illness could have psychological causes. Trained as a neuroscientist, Freud had a strong biological background. He was perplexed by clients who reported strong symptoms of illness but who lacked physical evidence of illness. He also noticed the work of Pierre Janet and of Franz Anton Mesmer, who cured cases of hysteria with hypnosis. In talking to his clients, Freud discovered that many of their physical illnesses were due to psychological issues. Once these psychological issues were resolved, the physical symptoms disappeared. This focus on the workings of the mind in disease was continued later in the 20th century by the psychoanalysts

▲ **Galen.** A key figure in the history of medicine who was one of the first to dissect bodies.

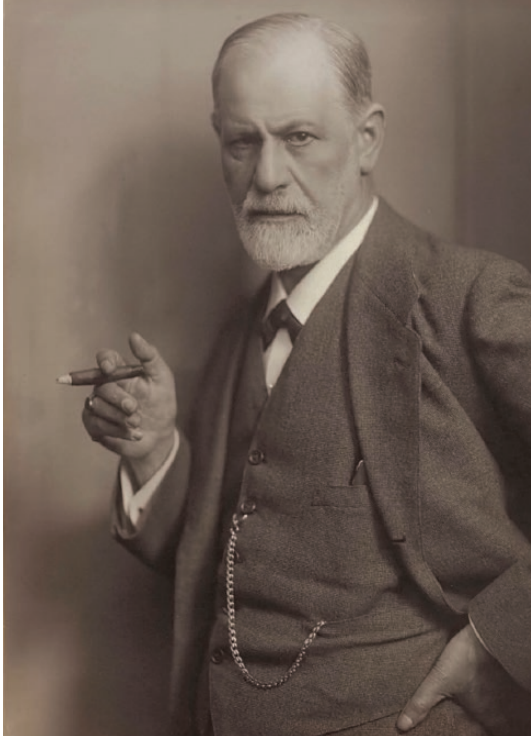
▲ **Descartes.** A key figure who advocated for the separation of the concept of the mind from the concept of the body.

Franz Alexander and **Helen Flanders Dunbar.** Together they established the first formal gathering of individuals interested in studying the influences of the mind on health. This movement within the mainstream medical establishment was coined **psychosomatic medicine**.

The new field of psychosomatic medicine had many supporters, which led to the formation of the first society specifically dedicated to the study of mind and body connections. The American Psychosomatic Society was formed to "promote and advance the scientific understanding and multidisciplinary integration of biological, psychological, behavioral and social factors in human health and disease, and to foster the dissemination and application of this understanding in education and health care" (American Psychosomatic Society, 2018). In 1936 the New York Academy of Medicine's joint committee on religion and medicine headed by Dunbar assembled a collection of the psychosomatic medical literature, together with publications examining the relationship of religion to health. Dunbar's early collection of articles led her to organize the publishing in 1939 of the first journal for this field, *Psychosomatic Medicine,* which still publishes research today. Although the early movement faltered and received mixed attention because it was based heavily on Freudian ideas and case study methods of research, the American Psychosomatic Society survives and is still active.

Another movement within the field of medicine, **behavioral medicine**, looks at nonbiological influences on health. Doctors and health-care specialists within the medical community were probably always aware that changes in behavior and lifestyle improve health, prevent illness, and reduce symptoms of illness, although they did not focus on this fact. The Society of Behavioral Medicine, a multidisciplinary, nonprofit organization founded in 1978, is dedicated to studying the influences of behavior on health and well-being. This organization brings together different disciplines—nursing, psychology, medicine, and public health—to form an interdisciplinary team. The society's explicit mission is "promoting the study of the interactions of behavior with biology and the environment, and the application of that knowledge to improve the health and well being of individuals, families, communities and populations" (Society of Behavioral Medicine, 2018). Similar to *Psychosomatic Medicine* for the APS, the SBM also has its own journal, the *Annals of Behavioral Medicine.* Another important resource for health psychology and clinical health psychologists in particular is the *International Classification of Diseases,* 9th revision (ICD-9), a classification of diseases and disorders. The connection between health psychology and medicine is strong. Even today, health psychology and clinical health psychologists play an important role in the practice of medicine and management of disease (Nicholas & Stern, 2011).

Other groups of individuals also began to draw attention to the fact that health issues needed to be addressed by a broader approach than the point of view taken by the medical establishment. Individuals in the field of **medical anthropology** are committed to improving public health in societies in economically poor nations. Based on the biological and sociocultural roots of anthropology, medical anthropologists have long considered health and medical care within the context of cultural systems, although not necessarily using the tools or theoretical approaches of psychologists. Similarly, medical sociologists are individuals working within the framework of the medical model, focusing on the role of culture and a person's environment in health and illness.



▲ **Freud.** A key figure who first explored the role of the mind in physical health.

There are many fascinating studies of health and behavior conducted within these different fields that we will refer to in this book. These fields and health psychology share common interests and terms. For example, health psychology and medical sociology both are influenced by the field of **epidemiology**—a branch of medicine that studies the frequency, distribution, and causes of different diseases with an emphasis on the role of the physical and social environments. We will also be paying close attention to clear-cut outcome measures used by epidemiologists. For example, we shall look at how different biopsychosocial factors relate to the number of cases of a disease that exist at a given point in time, or **morbidity**, and to the number of deaths related to a specific cause, or **mortality**.

Even within mainstream psychology, researchers in social psychology, personality psychology, cognitive psychology, and clinical psychology realize that the basic theories that they derived to describe and predict behavior easily could be applied in the study of health and well-being (Taylor, 2010, 2011). Beyond simply explaining what many laypeople (especially senators in Congress who begrudge the use of government money to fund psychological studies) considered commonsensical and mundane issues, psychological theorizing can actually save lives! As we will soon discover, social psychological theories form one of the core foundations of health psychological research (Taylor, 2011), and many social phenomena can explain why we do what we do. Are children likely to start smoking? What makes a person more or less likely to exercise or eat well? The answers to each of these questions come from theories derived from basic social psychological research.

▲ **Early Cures for Illness.** Many bizarre remedies for illness, such as bloodletting, were used prior to the discoveries of modern medicine.

WHAT IS HEALTH PSYCHOLOGY?

Health psychology is defined as an interdisciplinary subspecialty of psychology dedicated to promoting and maintaining health and preventing and treating illness (Leventhal, Weinman, Leventhal, & Phillips, 2008; Matarazzo, 1982; Taylor, 1990). Health psychologists pay close attention to the way that thoughts, feelings, behavior, and biological processes all interact with each other to influence health and illnesses ranging from chronic heart disease and cancer to diabetes and obesity (Freedland, 2017). In many ways, health psychology is greater than a subfield within the discipline of psychology, as it is built on theoretical ideas and research findings from many other areas in psychology. For example, many of the ways to understand the causes of stress and how we cope come from social and personality psychology. As previously discussed, in the evolution of psychology, even clinical psychologists such as Freud, Alexander, and Dunbar contributed to the development of the field. The biological bases of health have been studied by physiological psychologists. As we discuss in later chapters the ways in which health psychologists try to change behaviors, the influence of behaviorists such as Skinner and Watson will become apparent. Applying basic behaviorist theories (e.g., classical and operant conditioning) can help someone to stop smoking or help them to eat better or exercise more.

Whenever I refer to Health Psychology (with the capital letters) I refer to the subdivision of the American Psychological Association (**APA Division 38** now referred to as the **Society for Health Psychology**) that is dedicated to four issues:

Tony Savino/ Corbis Historical/ Getty Images

▲ **Early Cures for Illness.**
Using leeches to cure.

1. Advancing the contributions of psychology to the understanding of health and illness through basic and clinical research
2. Encouraging the integration of biomedical information about health and illness with current psychological knowledge
3. Promoting education and services in the psychology of health and illness
4. Informing the psychological and biomedical community and the general public about the results of current research and service activities in this area (APA, 2012)

Unlike the Society of Behavioral Medicine or the American Psychosomatic Society, whose members are overwhelmingly physicians, APA's Division 38, the Society for Health Psychology is a group specifically for psychologists. That fact aside, it is also open to (and is driven to foster collaborations with) members of the other health-care professions who are interested in the psychological aspects of physical and mental health. The Division's main goals are to (1) understand the etiology and promotion and maintenance of health; (2) prevent, diagnose, treat, and rehabilitate physical and mental illness; (3) study psychological, social, emotional, and behavioral factors in physical and mental illness; and (4) improve the health-care system and formulation of health policy.

Main Areas in Health Psychology

The field of health psychology, as well as the contents of this book, is naturally segmented into three areas: (1) stress and coping, (2) health behaviors, and (3) issues in health care. One major area under the umbrella of health psychology is **clinical health psychology**, a broad specialty in professional psychology that spans the three main segments and in which clinical practitioners work (Belar, 2008). Many health psychologists are clinicians and, although we will discuss clinical issues throughout this book, especially **evidence-based treatments** (Davidson, Trudeau, & Smith, 2006; Phillips, 2012), our focus is on the wider field of health psychology.

At the psychological roots of this area of study, the first part of this book will examine the biopsychosocial determinants of stress and then investigate how these same factors can influence coping style. The next part of the book will primarily describe the main health psychological theories relating to why we act in various healthy ways using different health behaviors as examples. We will look at the good (e.g., physical activity), the bad (e.g., eating too much fast food), and the ugly (e.g., seeing what smoking can do to a person's teeth and lungs). The last part of the book will focus on different factors relating to health care. These include the complexities of dealing with chronic and terminal illnesses and the different psychological factors influencing the quality of interactions between doctors and patients. We will begin by looking at how health psychologists do research, followed by an overview of some critical biological systems and discussing how different theories of human development and cultural variations can help us understand our health-related behaviors and our health. As you continue in the book, you will also learn about some of the fascinating ways that different cultures approach health and illness.

Synthesize, Evaluate, Apply

- What are the different areas of knowledge/psychology that play a role in health psychology?
- A 9-year study (Berkman & Syme, 1979) showed that people who practiced healthier behaviors lived longer but examined men and women over the age of 45 only. What aspect of this finding is a challenge for health psychologists (as we try to change the behaviors of younger adults)?
- How are the three main organizations for health psychology different from each other?
- Contrast the two approaches used by medicine and health psychology. What are components of each?

CAREERS AND GRADUATE TRAINING IN HEALTH PSYCHOLOGY

Health psychology enjoys growing popularity in colleges and universities (Panjwani et al., 2017). In one study, 177 out of 374 (48%) undergraduate psychology programs surveyed offered the course in 2005 (Stoloff et al., 2010) compared to only 112 of 400 programs surveyed (less than 26%) in a study conducted just 10 years previously (Perlman & McCann, 1999). After reading this book you may want to consider working in this fascinating field.

Most health psychologists work in either basic research settings or in applied settings. The former are academic psychologists who could be affiliated with a university or research center. The latter are clinicians who might be affiliated with hospitals or clinics. Researchers aim to determine the biopsychosocial factors involved in the many areas discussed in this book such as stress, cardiovascular diseases, cancer, and HIV. Clinical activities include conducting a variety of tests such as cognitive and behavioral assessments, psychophysiological assessments, clinical interviews, demographic surveys, objective and projective personality assessments, and various other clinical and research-oriented protocols. Health clinicians also implement interventions to change health behaviors, reduce stress, help people cope with chronic illnesses, and increase adherence to treatment. Many psychologists work in health-care settings and many HMOs include psychologists as well. Health psychologists have also been employed in governmental agencies, rehabilitation centers, medical schools, and pain centers (Belar & Deardorff, 2009). Table 1.5 shows the main types of levels of clinical health psychologists.

Although few undergraduate institutions offer specialized programs in health psychology, a growing number of graduate programs offer a degree or at least an emphasis in health psychology. The best preparation at the undergraduate level is a psychology major with many supporting courses in biology, statistics, and research methods. Many schools around the country are also adding an introductory health psychology course to the curriculum, but similar material may be covered in courses with titles such as behavioral health care, behavioral medicine, health behavior change, and health promotion. Because the biopsychosocial mode incorporates many different subject areas, you can cultivate your interest in health psychology by working in a variety of related fields. Many social workers, occupational and physical therapists, nutrition and exercise physiologists, dieticians, and other health-care workers also use the health psychological approach even if not the explicit label. Many county, state, and national organizations also hire students with backgrounds and interests in health psychology to work with related departments. Even within the field of psychology many social, personality, clinical, and counseling psychologists (some of the classic and traditional areas of psychology) sometimes also take a strong health psychological approach in their work.

After an undergraduate degree, most health psychologists enroll in graduate school and work toward a master of science (MS) or doctoral degree (PhD). A master's degree can take 2 to 3 years, and a doctoral degree can take 5 or more years; the content of the coursework will vary with the institution. Some graduate schools will focus more on the psychological aspects of the biopsychosocial model, including a greater number of advanced courses in psychology. Others will lean more heavily on the biological side of the model, with more courses that are specialized in biology and medicine. If you use the most traditional way to look for graduate schools—the American Psychological Association's guide to graduate study—here is something to look for. There are a small (although growing) number of health psychology PhD programs, but a larger number of clinical psychology programs that offer health psychology tracks. There are also many schools that have a health psychology emphasis within their social psychology doctoral programs (e.g., the University of California, Los Angeles [UCLA]). There are also schools with behavioral neuroscience or behavioral medicine programs whose curriculum is very close to that of health psychology programs. For one of the most up-to-date sources for programs with health psychology training, check the Society of Behavioral Medicine's health psychology education and training websites (Society of Behavioral Medicine, n.d.a, n.d.b).

Applied health psychologists have a doctoral or master's degree and are licensed for the independent practice of psychology in areas such as clinical and counseling psychology. Applicants have access to board certification in health psychology through the American Board of Professional Psychology. Clinical and counseling doctoral students are required to complete a 1-year internship before obtaining their doctorates, and many of these programs offer some training in health psychology. After graduate school, a number of individuals choose to specialize in a particular area of the field and take on postdoctoral positions. Although these positions rarely pay much, they are excellent opportunities to work closely with experienced researchers in the field and learn much more about specific topics.

If this brief exposure of what is available to you has whetted your appetite for more information about being

(Continued)

(Continued)

a health psychologist, the best place to look is the Society for Health Psychology's (APA Division 38) education and training website (https://societyforhealthpsychology.org/training/training-resources/#) or a similar site hosted by the Society for Behavioral Medicine (http://www.sbm.org/). At both sites you will find a listing of doctoral programs in health psychology, a guide to internships in health psychology, and a listing of postdoctoral programs in health psychology. Commercial job searching sites carry health psychology jobs as well, but be careful of the search terms you use. This is an expanding, exciting field with a tremendous potential to change how long and how well we live. I hope you are eager to learn more about it in the pages ahead, and consider becoming a health psychologist, too.

▼ TABLE 1.5

Levels of Clinical Health Psychologists

Specialty	Clinical Health Psychology			
Level of Training →	**Doctoral Training Program**	**Internship Training Program**	**Postdoctoral Training Program**	**Post-licensure Training Program**
Major Area of Study	2 HP courses[1] AND 2 CHP practica[2] AND CHP related dissertation or research project[3]	> 50% of supervised practice in clinical health[4]	80-100% of supervised practice in clinical health[4]	at least 100 hours of CHP CE* or 2CHP courses with 1000 hours of supervised CHP practice[7]
Emphasis	2 HP courses[1] AND 2 CHP practica[2]	≥30% - <50% of supervised practice in clinical health[4]	(Not applicable[5])	at least 50 CHP CE or 2 CHP academic courses with 480 hours supervised CHP practice[7]
Experience	1 HP course[1] AND 1 CHP practicum[2]	>20% - <30% of supervised practice in clinical health[4]	(Not applicable[5])	at least 25 hours of CHP CE* or 1 CHP academic course with 240 hours of supervised CHP practice[7]
↑ **Exposure**	1 HP course[1] OR 1 CHP practicum[2]	10% - 20% of supervised practice in clinical health[4]	10 to 20% of supervised practice in another specialty	at least 15 hours of CE* on clinical aspects of CHP practice or CHP academic course
Level of Opportunity[6]				

[1]Clinical Health Psychology (CHP) and Health Psychology (HP) Courses and Training -- Must have content congruent with *Clinical Health Psychology Education and Training and Guidelines and Post-doc-CRSPP 2011* (available on Council of Specialities in Professional Psychology website http://cospp.org/guidelines). Doctoral programs may be on quarter or semester academic calenders and a course in either system is considered equivalent. 2 semesters/3 quarters constitute one academic year.

[2]Clinical Health Psychology Practicum (CHP)—one academic year (approx. 9 months) of supervised training, at least 8 hours per week, or its equivalent (e.g., total clock hours 240 hours) with at least 50% of clinical service delivery with *health-related issues* of patient, family members, and/or *interprofessional* care teams.

[3]Clinical Health Psychology dissertation or research, project -- empirical research, extended case studies, literature critiques and analyses, or capstone projects.

[4]Clinical Health supervised practice: must include >50% of clinical service delivery to clinical health psychology patients, family members, and/or interprofessional care teams (e.g., assessment, treatment, consultation). The remainder of supervised experience can include seminar attendance, readings, research, provision of clinical supervision, teaching, program development and evaluation, and administration.

[5]Not applicable: By definition, postdoctoral education and training in clinical health psychology is a major area of study requiring 80% or more of time spent in this specialty area, but does allow for an exposure to other specialty areas.

[6]The term "focus" should be used to describe opportunities in non-specialty areas of training. Training programs should strive to provide explicit explanations of the type of training provided in these non-specialty areas.

[7]Supervised practice is expected with either the CE or CHP course(s) and defined as >50% of clinical service delivery to clinical health psychology patients, family members, and/or interprofessional care teams (e.g., assessment, treatment, consultation)

*CE course = must be organized CE program, APA sponsor of psychology continuing education.

Source: Reprinted with permission of the Society for Health Psychology.

CHAPTER REVIEW

SUMMARY

- There are many different definitions of health, each varying in its culture of origin. Western medicine sees health more as the absence of disease whereas other cultures see health more as a balance of opposing forces or spiritual harmony. The most common definition is that used by the World Health Organization: health is a state of complete physical, mental, and social well-being.
- Culture is broadly defined and includes ethnicity, sex, religion, gender, and nationality. Various dimensions of culture shape our health behaviors and our general health. Individualism and collectivism are examples of basic cultural dimensions. Socioeconomic status and sex are two of the most important cultural variables, each leading to a variety of health differences.
- Health psychology uses a biopsychosocial approach. This approach focuses on the biological, psychological, and sociocultural factors that influence health and health behaviors.
- Theorizing about the extent to which the mind and the body are connected has varied over time and across cultures. The ancient Chinese and Indians saw the two as connected, but the Greeks and other Europeans saw the mind and body as separate. Today we recognize that the two are clearly interconnected, and this connection is critical to understanding health and illness.
- Freud was the first psychologist to link the mind and body and to hypothesize psychological bases for physiological problems. His early views led to the formation of the first organization of behavioral medicine in the late 1930s, followed by further growth in the late 1960s.
- Health psychology as a unique area of psychology came to the forefront in the 1970s and has since grown. Its main goals are the prevention of illness, the promotion of health, the understanding of the biopsychosocial aspects of physical and mental illness, and the improvement of the health-care system. The main areas of health psychology are stress and coping, health behaviors, and issues in health care.
- Three major organizations cater to those using the biopsychosocial model: the Society of Behavioral Medicine, Society for Health Psychology, and American Psychosomatic Society.

TEST YOURSELF

Check your understanding of the topics in this chapter by answering the following questions.

1. The most comprehensive definition of health is provided by the
   a. Biomedical model.
   b. Hippocratic model.
   c. World Health Organization.
   d. Population Health model.
   e. International Classification of Functioning.

2. Which of the following is the primary focus of health psychology?
   a. health promotion, maintenance, and recovery
   b. etiology and correlates of health and illness
   c. revising the health-care system
   d. finding the cure for diseases like HIV and cancer
   e. studying patient–practitioner interactions

3. _____ refers to the number of cases of a disease that exist at some given point in time. _____ refers to the number of deaths due to particular causes.
   a. Morbidity; Mortality
   b. Mortality; Morbidity
   c. Epidemiology; Pathogenesis
   d. Etiology; Epidemiology
   e. Morbidity; Etiology

4. The Greek physician best known for dissections and providing us with anatomy data was
   a. Plato.
   b. Galen.

c. Hippocrates.
d. Descartes.
e. Aginostophenes.

5. The most common definition of health across cultures is health as
   a. the absence of disease.
   b. spiritual happiness.
   c. communion with God.
   d. a state of balance.

6. One of the first organizations to combine medicine with psychology, started by Dunbar and Alexander, was the
   a. Society for Health Psychology.
   b. Society for Behavioral Medicine.
   c. American Psychosomatic Society.
   d. Mind–Body Institute.
   e. National Institute of Mental Health (NIMH).

7. Culture is best defined as
   a. a set of beliefs shared by a group.
   b. race and ethnicity.
   c. religion, family values, and race.
   d. the values of our parents and family members.

8. One of the most powerful predictors of health disparities in North America is
   a. sex.
   b. socioeconomic status.
   c. race.
   d. ethnicity.

9. In studying about cultural differences in health, we should remember that
   a. in-group differences are often larger than between-group differences.
   b. between-group differences are often larger than in-group differences.
   c. racial differences outweigh all other cultural differences.
   d. most cultural differences are insignificant from a global level.

10. Studies where one group gets an experimental drug and another gets a placebo are called
    a. randomized clinical trials.
    b. correlational studies.
    c. quasi-experimental studies.
    d. longitudinal studies.

KEY TERMS, CONCEPTS, AND PEOPLE ▶▶

Alexander, Franz, **20**
APA Division 38, **21**
availability heuristic, **12**
Ayurveda, **9**
behavioral medicine, **20**
biomedical approach, **8**
biopsychosocial approach, **17**
clinical health psychology, **22**
culture, **10**
Descartes, Rene, **18**
Dunbar, Helen Flanders, **20**
epidemiology, **21**
Freud, Sigmund, **19**
Galen, **18**
health psychology, **21**
health, **7**
Hippocrates, **18**
incidence rates, **6**
James, William, **19**
medical anthropology **20**
morbidity, **21**
mortality, **21**
psychosomatic medicine, **20**
sex, **12**
socioeconomic status, **6**
Traditional Chinese Medicine, **8**
World Health Organization (WHO), **7**

ESSENTIAL READINGS ▶▶

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CHAPTER 2

DOING HEALTH PSYCHOLOGY

Research Methods

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Chapter 2 Outline

MEASURING UP

IS PSYCHOLOGY A SCIENCE?

Listed below are a number of statements. Read each statement carefully and indicate the extent to which you agree or disagree by writing the appropriate number by each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

1. An undergraduate degree in psychology should be a bachelor of science rather than a bachelor of arts degree. _____
2. It's just as important for psychology students to do experiments as it is for students in chemistry and biology. _____
3. Research conducted in controlled laboratory settings is essential for understanding everyday behavior. _____
4. Even though each person is unique, it is possible for science to find general laws explaining human behavior. _____
5. Carefully controlled research is not likely to be useful in solving psychological problems. _____
6. Our ability as humans to behave in any way we choose makes our attempts to predict behavior ineffective. _____
7. Psychological advice given in popular books and magazines is often as useful as claims that are more research based. _____
8. Government funding of experimentation is as necessary for expanding what we know about psychology as it is for gaining knowledge in areas like chemistry and physics. _____
9. The study of psychology should be seen primarily as a science. _____
10. Courses in psychology place too much emphasis on research and experimentation. _____
11. Psychological research can enable us to anticipate people's behavior with a high degree of accuracy. _____
12. Psychologists working as counseling professionals don't need to be so concerned with research findings. _____
13. Psychological theories presented in the media should not be trusted unless they are supported by experiments. _____
14. Psychology will never be a true science because its predictions of individual behavior are seldom exact or certain. _____
15. Students get little benefit from learning about procedures for conducting psychology experiments. _____

Source: "The Psychology as a Science Questionnaire" (Friedrich, 1996).

▼ Ponder This

Before you share a research study on Facebook, Twitter, or other social media, what should you be looking for in order to know it is valid?

What are the different ways to design research?

Does a startling research finding need to be shown again (replicate) before you believe it? Why or why not?

"Coffee is good for you." "Coffee is bad for you." "Eating chocolate leads to longer life." "Cell phone usage may cause cancer." "Daily mindfulness interventions lead to happiness." You have probably seen social media blaring similar headlines. Our Facebook and Twitter feeds are often flooded with the latest "Research shows . . . " type shares. Often, the advice is contradictory. Sometimes what is good for us in one year is bad for us in another year. Whereas it is easy to think nothing is true and that health is too complex to fully predict, the reality is that the media do not always do a good job of reporting research. We textbook authors aim to do a much better job but you will be a better consumer of information (both in life and in understanding health psychology) if you have a working understanding of the basic elements of research, the major designs used, and some common statistical analyses (and their interpretation). Scientific knowledge and research has a toolkit and a common methodology. This textbook is based on peer-reviewed journal articles—research published in academic journals that have passed the tests of independent review. How is that research done? What are the major designs used? In this chapter I will give you the tools to enable you to open up any research journal and be able to better understand the findings discussed within. By chapter's end we get to a major question for all scientific research—Do the findings replicate?

Common Rubrics for Health

Regardless of which definition of health we consider, each definition of health is broad and ambiguous. How can we measure mental, spiritual, and social health? Does simply the absence of physical problems or disease equate to health? Can anyone even measure a balanced yin and yang? The answer is no, not really, or at least not by any measure that we know of or use in the United States or in the scientific community, and not in a way on which we can all agree. To understand what keeps us healthy, it is important to start with a good measurement of health. As you learn about the field of health psychology, you will see that although most researchers will use a common understanding and relatively broad definition of health to guide their general thinking (e.g., a general state of well-being), every researcher uses a different specific measure of health to help understand what makes us healthy.

Take a quick look at the major research journals that report on health psychological research, and you will see that different studies use slightly different measures. This is the first major element to watch for when reading articles. The main categories of measures vary with each journal. For example, *Health Psychology* is the leading journal in the field and publishes the results of studies on the topic of health psychology. This journal features many studies that define health in terms of the extent to which health-improving behaviors are practiced (e.g., how much did the participants in the study exercise in a week?) or in terms of psychological well-being (e.g., what were the participants' scores on the Profile of Mood States, a common measure of mood?). You will also see many studies that assess the extent to which health-diminishing behaviors are practiced. For example, how much does a person smoke? What predicts the amount of alcohol consumed?

Other journals, such as the *Annals of the Society for Behavioral Medicine* and *Psychosomatic Medicine,* measure many specific physiological outcomes. For example, what are the levels of immune cells in the blood? Figure 2.1 shows sample contents from the three major journals. The bottom line is that we determine if people are healthy by measuring a variety of aspects. You will see measures of basic physiological levels of bodies' various systems (e.g., blood pressure, heart rate, or cholesterol level). You will see measures of how much people practice healthy behaviors (e.g., exercising). You will also see many measures of psychological well-being (e.g., levels of depression or optimism) and how well people practice healthy psychological ways (e.g., good coping skills). There are so many different ways to measure the key elements of health, an entire book focuses on the different measures used in health psychology (Benyamini, Johnston, & Karademas, 2016).

▼ FIGURE 2.1

Journal Covers

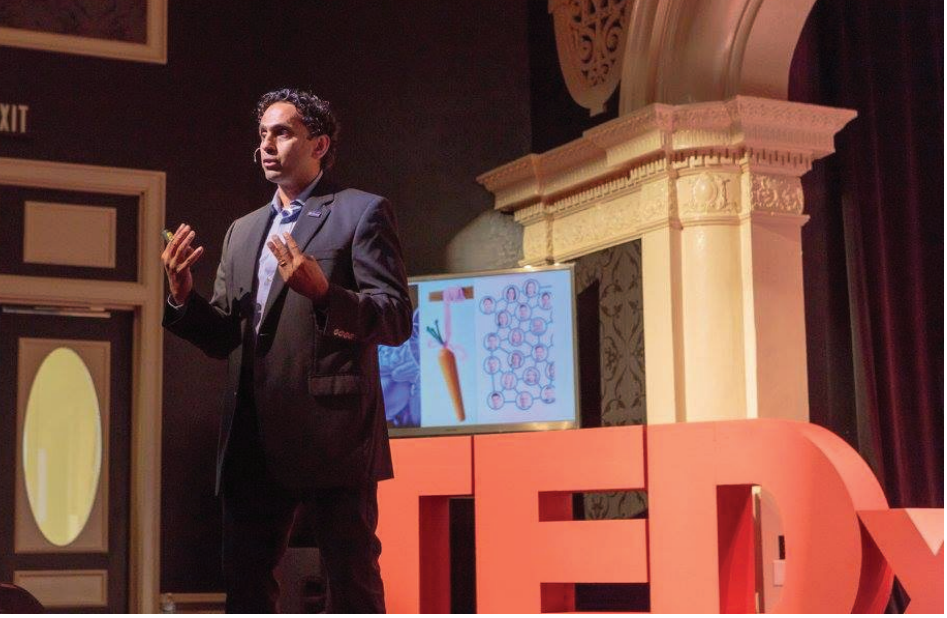
Sources: Applied Psychological Measurement, 42(3); *Cross-Cultural Research, 52*(2); *Clinical Case Studies, 17*(2).

A RESEARCH PRIMER

Health psychology relies firmly on the scientific method. The key elements of a science are (1) that it is empirical (relying on sense observations and data) and (2) that it is theory driven. The data or empirical evidence is collected in ethical, rigorously controlled, and standardized ways whether you are identifying causes of stress or testing the psychological effects of an intervention to reduce smoking. The research enterprise is a fascinating one; to get a good feel for the results of research (discussed throughout this book), you should have a good idea of the main research designs and data collection methods. Because the bulk of our knowledge comes from research, courses in experimental methods and statistics are great companions or foundations for the health psychology course. This chapter should be a good refresher for those of you who have taken such courses or provide the rest of you with enough to really enjoy reading research journals.

Understanding the common research methods used by health psychologists and knowing how to interpret common statistical results will also enable you to make better sense of peer-reviewed journal articles, the source of the information used in writing this book. Even if you learn of results of research on the radio, television, or via the Internet, it is always good practice to go to the original published article to substantiate the results. You will be surprised how often media outlets spin a finding to amplify the possible implications. Reading the original sources for yourself (and understanding them) will make you a better consumer of science. You may want to head over to PsycInfo (or a related database) right now and look up the latest issue of *Health Psychology*. Then go back to it after you read the rest of this chapter and feel the thrill of being research savvy.

Watch for different ways studies are set up. There are a wide variety of research designs in health psychology (Lovejoy & Fowler, 2019). As discussed in Chapter 1, Health Psychologists may be trained as clinicians, experimentalists, developmentalists, or social psychologists. Health psychology research is also conducted in different health-related disciplines such as nursing, medicine, and public health. Each of these different areas favors different research designs. Someone with a public health degree may favor population-wide measurement of bike path usage.



Dr. Regan A. R. Gurung

▲ **Research Presentations.** We often hear about research from conference presentations or even listening to TED talks. Listen to mine on how to Chill, Drill, and Build for healthy living. Remember, neither go through the same level of peer review as do scholarly journals.

Developmental psychologists may prefer studies conducted over a period of time. Social psychologists may prefer experimental tests of different treatments. Each design has its pros and cons, as you will see in the pages ahead.

Key Steps to Doing Research

The steps for conducting research on health mirror most of the steps used to conduct research on any topic. First, the researcher identifies a question of interest and then reviews what has been published on the topic. Next, the researcher ascertains what is left to be discovered or needed to be researched and then decides how to conduct that research. One common approach to this sort of research is to measure basic relevant health behaviors or states of health whether psychological or physiological. There are a variety of specific scales or questionnaires one can use to measure, assess, or evaluate health (Luszczynska, Kruk, & Boberska, 2019). *Measurement* focuses on describing characteristics of an individual (e.g., self-efficacy). *Assessment* relates to obtaining information according to a goal (e.g., how much did exercise increase after an intervention). *Evaluation* "accounts for the individual in a specific situation and the goals or criteria which were externally set resulting in a normative judgment" (Luszczynska et al., 2019). In health psychology these terms are often used interchangeably.

Similar to conducting psychological science in general, health researchers can start with descriptive studies (e.g., How much are people exercising?), move on to correlational designs (e.g., What is exercising associated with?), and then design interventions (e.g., If I introduce a new way of talking about exercise, will amount of exercise change?). In designing interventions, researchers can choose from a wide variety of models. Lovejoy and Fowler (2019) present a fuller description of different research designs and particular adaptations for health psychological interventions.

RESEARCHER SPOTLIGHT

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Good news. The basic process of doing research is common across the board and a recent chapter in the *Handbook of Health Psychology* (Revenson & Gurung, 2019) provides us with a major research designs in health psychology (Ranby, 2019). I summarize the main steps in Table 2.1. As you can see, most map nicely onto what you have read about in your research methods class. There are some nuances, of course. In health psychology research you tend to have to spend more time and energy collecting data and are more likely to be measuring sensitive topics. You have to pay particular attention to selecting your measurement tools, as well. Let's first overview the major types of research designs used in health psychology. We can then focus in on measurement.

Major Research Designs

Descriptive Studies The most basic form of research describes what is going on: How many people smoke? How prevalent is a certain disease or disorder? If you receive an electronic survey over email asking you about your behaviors you are probably being recruited for a descriptive study. This basic form of design is exploratory and aims to establish baselines for behaviors. You are most likely to see descriptive studies in the field of epidemiology and public health. Epidemiological studies often report **prevalence rates**, the proportion of the population that has a particular disease at a particular time (commonly reported as cases per 1,000 or 100,000 people), and **incidence rates**, the frequency of new cases of the disease during a year.