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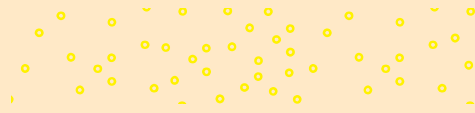
Eleventh Edition

# HEALTH PSYCHOLOGY

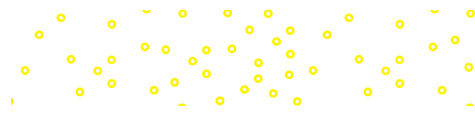
Shelley E. Taylor • Annette L. Stanton



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# HEALTH PSYCHOLOGY







# HEALTH PSYCHOLOGY

ELEVENTH EDITION

**SHELLEY E. TAYLOR AND ANNETTE L. STANTON**

University of California, Los Angeles



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## HEALTH PSYCHOLOGY, ELEVENTH EDITION

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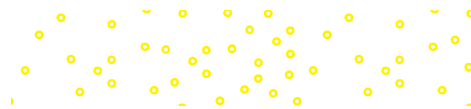
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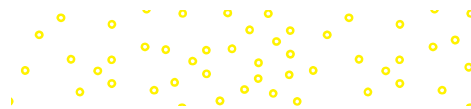
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For Everyone Living with  
a Chronic Disease Who  
So Generously Takes Part  
in Our Research



## ABOUT THE AUTHOR



Courtesy of Shelley E. Taylor

**SHELLEY E. TAYLOR** is Distinguished Professor of Psychology at the University of California, Los Angeles. She received her Ph.D. in social psychology from Yale University. After a visiting professorship at Yale and assistant and associate professorships at Harvard University, she joined the faculty of UCLA. Her research interests concern the psychological and social factors that promote or compromise mental and physical health across the life span. Professor Taylor is the recipient of a number of awards—most notably, the American Psychological Association’s Distinguished Scientific Contribution to Psychology Award, a 10-year Research Scientist Development Award from the National Institute of Mental Health, and an Outstanding Scientific Contribution Award in Health Psychology. She is the author of more than 350 publications in journals and books and is the author of *Social Cognition*, *Social Psychology*, *Positive Illusions*, and *The Tending Instinct*. She is a member of the National Academy of Sciences and the National Academy of Medicine.



Courtesy of Annette Stanton

**ANNETTE L. STANTON** is Professor of Psychology and Psychiatry/ Biobehavioral Sciences, Senior Research Scientist at the Cousins Center for Psychoneuroimmunology, and Member of the Jonsson Comprehensive Cancer Center at the University of California, Los Angeles. She earned the Ph.D. in clinical psychology at the University of Connecticut. After serving as faculty at Auburn University and the University of Kansas, she joined the faculty of UCLA in 2003. Through her research, Dr. Stanton identifies factors that promote or impede psychological and physical health in adults and couples undergoing chronically stressful experiences, with a focus on the experience of cancer. She translates her findings into action by developing and testing approaches to enhance psychological and physical health in those populations. An author of more than 250 publications in scientific journals and books, she has served as President of the Society for Health Psychology of the American Psychological Association. Her research and professional contributions have been recognized by awards from that society, the International Society of Behavioral Medicine, the American Psychosocial Oncology Society, and the Cancer Support Community. She also is an award-winning teacher and mentor of undergraduate and graduate students.

## CONTENTS

PREFACE xv

## PART 1

## INTRODUCTION TO HEALTH PSYCHOLOGY

## CHAPTER 1

## What Is Health Psychology? 2

**Definition of Health Psychology 3**

Why Did Health Psychology Develop? 3

**The Mind–Body Relationship: A Brief History 4****The Rise of the Biopsychosocial Model 5**

Psychosomatic Medicine 5

Advantages of the Biopsychosocial Model 5

Clinical Implications of the Biopsychosocial Model 6

The Biopsychosocial Model: The Case History of  
Nightmare Deaths 6**The Need for Health Psychology 6**

Changing Patterns of Illness 7

Advances in Technology and Research 8

Expanded Health Care Services 8

Increased Medical Acceptance 9

**Health Psychology Research 9**

The Role of Theory in Research 9

Experiments 10

Correlational Studies 10

Prospective and Retrospective Designs 10

The Role of Epidemiology in Health Psychology 11

Methodological Tools 11

Qualitative Research 12

**What is Health Psychology Training for? 12**

## CHAPTER 2

## The Systems of the Body 14

**The Nervous System 15**

Overview 15

The Brain 15

**BOX 2.1** Costs of War to the Brain 17

The Role of Neurotransmitters 17

Disorders of the Nervous System 17

**The Endocrine System 19**

Overview 19

The Adrenal Glands 19

Disorders Involving the Endocrine System 19

**The Cardiovascular System 20**

Overview 20

The Heart 21

Disorders of the Cardiovascular System 21

Blood Pressure 22

The Blood 22

**The Respiratory System 23**

Overview 23

The Structure and Functions of the Respiratory  
System 23

Disorders Associated with the Respiratory System 24

Dealing with Respiratory Disorders 25



**The Digestive System and the Metabolism of Food 25**

- Overview 25
- The Functioning of the Digestive System 25
- Disorders of the Digestive System 26
- The Gut–Brain Connection 27

**The Renal System 27**

- Overview 27
- Disorders of the Renal System 28

**The Reproductive System 28**

- Overview 28
- The Ovaries and Testes 28
- Fertilization and Gestation 28
- Disorders of the Reproductive System 29

**Genetics and Health 30**

- Overview 30
- Genetics and Susceptibility to Disorders 30

**The Immune System 31**

- Overview 31
- BOX 2.2** Portraits of Two Carriers 32
- Infection 32
- The Course of Infection 32
- Immunity 33
- Disorders Related to the Immune System 34

## PART 2

## HEALTH BEHAVIOR AND PRIMARY PREVENTION

## CHAPTER 3

## Health Behaviors 40

**An Introduction to Health Behaviors 41**

- Role of Behavioral Factors in Disease and Disorder 41

**Health Promotion: An Overview 41**

- Health Behaviors and Health Habits 41
- Practicing and Changing Health Behaviors:  
An Overview 42
- Barriers to Modifying Poor Health Behaviors 43
- Intervening with Children and Adolescents 43
- Intervening with At-Risk People 45
- Health Promotion and Older Adults 46
- Ethnic and Gender Differences in Health Risks  
and Habits 47

**Changing Health Habits 47**

- Attitude Change and Health Behavior 47
- The Health Belief Model 49
- The Theory of Planned Behavior 50
- Criticisms of Attitude Theories 50
- Self-Regulation and Health Behavior 51
- Self-Determination Theory 51
- Implementation Intentions 52
- Health Behavior Change and the Brain 52

**Cognitive–Behavioral Approaches to Health Behavior  
Change 53**

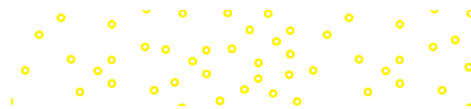
- Cognitive–Behavioral Therapy (CBT) 53
- Self-Monitoring 53
- Stimulus Control 53
- The Self-Control of Behavior 53
- BOX 3.1** Classical Conditioning 54
- BOX 3.2** Operant Conditioning 55
- BOX 3.3** Modeling 56
- Social Skills and Relaxation Training 56
- Motivational Interviewing 57
- Relapse Prevention 57
- Evaluation of CBT 58

**The Transtheoretical Model of Behavior Change 59**

- Stages of Change 59
- Using the Stage Model of Change 60

**Changing Health Behaviors Through Social Engineering 61****Venues for Health-Habit Modification 61**

- The Practitioner’s Office 61
- The Family 61
- Self-Help Groups 62
- Schools 62
- Workplace Interventions 62



Community-Based Interventions 63  
 The Mass Media 63  
 Cellular Phones and Landlines 64  
 The Internet 64

#### CHAPTER 4

### Health-Promoting Behaviors 67

#### Exercise 68

Benefits of Exercise 68  
 Determinants of Regular Exercise 69  
 Exercise Interventions 70

#### Accident Prevention 71

Home and Workplace Accidents 72  
 Motorcycle and Automobile Accidents 73

#### Vaccinations and Screening 73

Vaccinations 73  
 Screenings 73  
 Colorectal Cancer Screening 74

#### Sun Safety Practices 75

#### Developing a Healthy Diet 76

Changing Diet 77  
 Resistance to Modifying Diet 77

#### Sleep 79

What Is Sleep? 79  
 Sleep and Health 79

#### Rest, Renewal, Savoring 81

#### CHAPTER 5

### Health-Compromising Behaviors 83

#### Characteristics of Health-Compromising Behaviors 84

#### Marijuana Use 85

#### Obesity 86

What Is Obesity? 86  
**B O X 5.1** The Biological Regulation of Eating 89

Obesity in Childhood 89  
 SES, Culture, and Obesity 90  
 Obesity and Dieting as Risk Factors for Obesity 91  
 Stress and Eating 92  
 Interventions 92  
**B O X 5.2** Don't Diet 93  
 Cognitive-Behavioral Therapy (CBT) 94  
 Evaluation of Cognitive-Behavioral Weight-Loss  
 Techniques 96  
 Taking a Public Health Approach 96  
**B O X 5.3** The Barbie Beauty Battle 97

#### Eating Disorders 97

Anorexia Nervosa 98  
 Bulimia 99  
 Binge Eating Disorder 100

#### Alcoholism and Problem Drinking 100

The Scope of the Problem 100  
 What Is Substance Dependence? 101  
 Alcoholism and Problem Drinking 101  
 Origins of Alcoholism and Problem Drinking 101  
 Treatment of Alcohol Abuse 102  
 Treatment Programs 102  
**B O X 5.4** After the Fall of the Berlin Wall 103  
**B O X 5.5** A Profile of Alcoholics Anonymous 104  
 Evaluation of Alcohol Treatment Programs 104  
**B O X 5.6** The Drinking College Student 105  
 Preventive Approaches to Alcohol Abuse 106  
 Drinking and Driving 107  
 Is Modest Alcohol Consumption a Health  
 Behavior? 107

#### Smoking 107

Synergistic Effects of Smoking 107  
 A Brief History of the Smoking Problem 108  
 Why Do People Smoke? 110  
 Nicotine Addiction and Smoking 111  
 Interventions to Reduce Smoking 112  
 Smoking Prevention Programs 115  
**B O X 5.7** The Perils of Secondhand Smoke 116

## PART 3

## STRESS AND COPING

## CHAPTER 6

## Stress 120

## What Is Stress? 121

- What Is a Stressor? 121
- Appraisal of Stressors 121

## Origins of the Study of Stress 121

- Fight or Flight 121
- Selye's General Adaptation Syndrome 121
- Tend-and-Befriend 123
- How Does Stress Contribute to Illness? 123

## The Physiology of Stress 124

- Effects of Long-Term Stress 125
- Individual Differences in Stress Reactivity 126
- Physiological Recovery 127
- Allostatic Load 127
- BOX 6.1** Can Stress Affect Pregnancy? 128

## What Makes Events Stressful? 128

- Dimensions of Stressful Events 128
- Must Stress Be Perceived as Such to Be Stressful? 130
- Can People Adapt to Stress? 130
- Must a Stressor Be Ongoing to Be Stressful? 130

## How Has Stress Been Studied? 131

- Studying Stress in the Laboratory 131
- Inducing Disease 131
- Stressful Life Events 131
- BOX 6.2** Post traumatic Stress Disorder 132
- BOX 6.3** Can an Exciting Sports Event Kill You?
  - Cardiovascular Events During World Cup Soccer 134
- Daily Stress 134
- BOX 6.4** A Measure of Perceived Stress 135

## Sources of Chronic Stress 135

- Effects of Early Stressful Life Experiences 135
- BOX 6.5** The Measurement of Daily Strain 136
- Chronic Stressful Conditions 137
- Stress in the Workplace 137
- BOX 6.6** Can Prejudice Harm Your Health? 138

- Some Solutions to Workplace Stressors 141
- Combining Work and Family Roles 141

## CHAPTER 7

## Coping, Resilience, and Social Support 144

## Coping with Stress and Resilience 145

- Personality and Coping 145
- BOX 7.1** The Measurement of Optimism:
  - The LOT-R 147
- Psychosocial Resources 147
- BOX 7.2** Religion, Spirituality, Coping, and Well-Being 149
- Resilience 150
- Coping Style and Coping Strategies 150
- BOX 7.3** The Brief COPE 151
- BOX 7.4** Coping with HIV 152
- Problem-Focused and Emotion-Focused Coping 153

## Coping and External Resources 154

## Coping Outcomes 154

## Coping Interventions 155

- Mindfulness Meditation and Acceptance/Commitment Therapy 155
- Expressive Writing 155
- Self-Affirmation 156
- Relaxation Training 156
- Coping Skills Training 156

## Social Support 158

- What Is Social Support? 158
- Effects of Social Support on Illness 159
- BOX 7.5** Is Social Companionship an Important Part of Your Life? 160
- Biopsychosocial Pathways 160
- Moderation of Stress by Social Support 161
- What Kinds of Support Are Most Effective? 162
- BOX 7.6** Can Bad Relationships Affect Your Health? 163
- Enhancing Social Support 164

## PART 4

## SEEKING AND USING HEALTH CARE SERVICES

## CHAPTER 8

## Using Health Services 168

## Recognition and Interpretation of Symptoms 169

Recognition of Symptoms 169

Interpretation of Symptoms 170

Cognitive Representations of Illness 170

**BOX 8.1** Can Expectations Influence Sensations?

The Case of Premenstrual Symptoms 171

Lay Referral Network 172

The Internet 172

## Who Uses Health Services? 172

Age 172

Gender 172

Social Class and Culture 173

Social Psychological Factors 173

## Misusing Health Services 174

Using Health Services for Emotional  
Disturbances 174**BOX 8.2** The June Bug Disease: A Case of

Hysterical Contagion 175

Delay Behavior 175

## CHAPTER 9

## Patients, Providers, and Treatments 179

## Health Care Services 180

Patient Consumerism 180

Structure of the Health Care Delivery System 180

Patient Experiences with Managed Care 181

## The Nature of Patient–Provider Communication 182

Setting 182

Provider Behaviors That Contribute to Faulty  
Communication 183**BOX 9.1** What Did You Say?: Language Barriers to  
Effective Communication 184

Patients' Contributions to Faulty Communication 184

Interactive Aspects of the Communication

Problem 185

Use of Artificial Intelligence 186

## Results of Poor Patient–Provider Communication 186

Nonadherence to Treatment Regimens 186

**BOX 9.2** What Are Some Ways to Improve  
Adherence to Treatment? 187Improving Patient–Provider Communication and Increasing  
Adherence to Treatment 188

Teaching Providers How to Communicate 188

**BOX 9.3** What Can Providers Do to Improve  
Adherence? 189

## The Patient in the Hospital Setting 190

Structure of the Hospital 191

The Impact of Hospitalization  
on the Patient 192**BOX 9.4** Burnout Among Health Care  
Professionals 193Interventions to Increase Information in Hospital  
Settings 194

## The Hospitalized Child 194

**BOX 9.5** Social Support and Distress from  
Surgery 195Preparing Children for Medical  
Interventions 195

## Complementary and Alternative Medicine 196

Philosophical Origins of CAM 197

## CAM Treatments 198

Dietary Supplements and Diets 198

Prayer 199

Acupuncture 199

Yoga 199

Hypnosis 200

Meditation 200

Guided Imagery 200

Chiropractic Medicine 201

Osteopathy 201

Massage 201

Who Uses CAM? 201

Complementary and Alternative Medicine: An Overall  
Evaluation 202

## The Placebo Effect 203

History of the Placebo 203

**BOX 9.6** Cancer and the Placebo Effect 204

What Is a Placebo? 204

Provider Behavior and Placebo Effects 204

Patient Characteristics and Placebo Effects 205

Patient–Provider Communication and Placebo Effects 205  
 Situational Determinants of Placebo Effects 205  
 Social Norms and Placebo Effects 205  
 The Placebo as a Methodological Tool 206

## CHAPTER 10

### The Management of Pain and Discomfort 209

#### The Elusive Nature of Pain 211

**BOX 10.1** A Cross-Cultural Perspective on Pain: The Childbirth Experience 212  
 Measuring Pain 212  
**BOX 10.2** Headache Drawings Reflect Distress and Disability 214  
 The Physiology of Pain 214  
**BOX 10.3** Phantom Limb Pain: A Case History 216  
 Neurochemical Bases of Pain and Its Inhibition 216

#### Clinical Issues in Pain Management 217

Acute and Chronic Pain 217  
 Pain and Personality 219

#### Pain Control Techniques 220

Pharmacological Control of Pain 220  
 Surgical Control of Pain 220  
**BOX 10.4** The Opioid Crisis 221  
 Sensory Control of Pain 221  
 Biofeedback 222  
 Relaxation Techniques 222  
 Distraction 223  
 Coping Skills Training 223  
 Cognitive–Behavioral Therapy 224

#### Pain Management Programs 225

Initial Evaluation 225  
 Individualized Treatment 225  
 Components of Programs 226  
 Involvement of Family 226  
 Relapse Prevention 226  
 Evaluation of Programs 226

## PART 5

# MANAGEMENT OF CHRONIC AND TERMINAL HEALTH DISORDERS

## CHAPTER 11

### Management of Chronic Health Disorders 230

#### Quality of Life 232

What Is Quality of Life? 232  
 Why Study Quality of Life? 233

#### Emotional Responses to Chronic Health Disorders 233

Denial 233  
 Anxiety 234  
 Depression 234  
**BOX 11.1** A Future of Fear 235

#### Personal Issues in Chronic Health Disorders 235

The Physical Self 235  
 The Achieving Self 236  
 The Social Self 236  
 The Private Self 236

#### Coping with Chronic Health Disorders 236

Coping Strategies and Chronic Health Disorders 236  
 Patients' Beliefs About Chronic Health Disorders 237

#### Comanagement of Chronic Health Disorders 238

Physical and Behavioral Rehabilitation 238  
**BOX 11.2** Chronic Fatigue Syndrome and Other Functional Disorders 239  
**BOX 11.3** Epilepsy and the Need for a Job Redesign 240  
 Vocational Issues in Chronic Health Disorders 240  
 Social Interaction Problems in Chronic Health Disorders 240  
**BOX 11.4** Who Works with People with Chronic Health Disorders? 241  
 Gender and the Impact of Chronic Health Disorders 243

Positive Changes in Response to Chronic Health Disorders 244  
When a Child Has a Chronic Health Disorder 244

### Psychological Interventions and Chronic Health Disorders 246

Pharmacological Interventions 246  
Individual Therapy 246  
Relaxation, Stress Management, and Exercise 247  
Social Support Interventions 247  
**B O X 11.5** Help on the Internet 248  
Support Groups 248

## CHAPTER 12

Psychological Issues in Advancing and Terminal Illness 250

### Death Across the Life Span 251

Death in Infancy and Childhood 252  
Death in Adolescence and Young Adulthood 254  
Death in Middle Age 255  
Death in Old Age 255  
**B O X 12.1** Why Do Women Live Longer Than Men? 256

### Psychological Issues in Advancing Illness 257

Continued Treatment and Advancing Illness 257  
**B O X 12.2** A Letter to My Physician 258  
Psychological and Social Issues Related to Dying 258  
**B O X 12.3** Ready to Die: The Question of Assisted Death 259  
The Issue of Nontraditional Treatment 260

### Are There Stages in Adjustment to Dying? 260

Kübler-Ross's Five-Stage Theory 260  
Evaluation of Kübler-Ross's Theory 261

### Psychological Issues and the Terminally Ill 262

Medical Staff and the Terminally Ill Patient 262  
The Promise of Palliative Care 263  
Counseling with the Terminally Ill 263  
The Management of Terminal Illness in Children 264

### Alternatives to Hospital Care for the Terminally Ill 264

Hospice Care 264  
Home Care 265

### Problems of Survivors 265

**B O X 12.4** Cultural Attitudes Toward Death 266  
The Survivor 266  
Death Education 268

## CHAPTER 13

Heart Disease, Hypertension, Stroke, and Type 2 Diabetes 270

### Coronary Heart Disease 271

What Is CHD? 271  
Risk Factors for CHD 271  
Stress and CHD 272  
Women and CHD 274  
Personality, Cardiovascular Reactivity, and CHD 275  
**B O X 13.1** Hostility and Cardiovascular Disease 276  
Depression and CHD 277  
Other Psychosocial Risk Factors and CHD 278  
Management of Heart Disease 279  
**B O X 13.2** Picturing the Heart 280  
Prevention of Heart Disease 283

### Hypertension 283

How Is Hypertension Measured? 283  
What Causes Hypertension? 283  
Treatment of Hypertension 286  
The Hidden Disease 286

### Stroke 287

Risk Factors for Stroke 288  
Consequences of Stroke 288  
Rehabilitative Interventions 289

### Type 2 Diabetes 290

Health Implications of Diabetes 292  
Psychosocial Factors in the Development of Diabetes 292  
**B O X 13.3** Stress Management and the Control of Diabetes 293  
The Management of Diabetes 293

## CHAPTER 14

Psychoneuroimmunology and Immune-Related Disorders 296

### Psychoneuroimmunology 297

The Immune System 297  
Assessing Immune Functioning 297  
Stress and Immune Functioning 297  
**B O X 14.1** Autoimmune Disorders 299  
Negative Affect and Immune Functioning 299  
Stress, Immune Functioning, and Interpersonal Relationships 300  
Psychosocial Resources and Immune Functioning 300  
Interventions to Improve Immune Functioning 301

**HIV Infection and AIDS 302**

- A Brief History of HIV Infection and AIDS 302
- HIV Infection and AIDS in the United States 303
- The Psychosocial Impact of HIV Infection 304
- Interventions to Reduce the Spread of HIV Infection 305
- Coping with HIV+ Status and AIDS 309
- Psychosocial Factors That Affect the Course of HIV Infection 309

**Cancer 310**

- Why Is Cancer Hard to Study? 311
- Who Gets Cancer? A Complex Profile 311
- Psychosocial Factors and Cancer 313

- Psychosocial Factors and the Course of Cancer 313
- Adjusting to Cancer 314
- Psychosocial Issues and Cancer 314
- Post traumatic Growth 315
- Interventions 315
- Therapies with Cancer Patients 316

**Arthritis 317**

- Rheumatoid Arthritis 317
- Osteoarthritis 318

**Type 1 Diabetes 319**

- Special Problems of Adolescents with Diabetes 320

## PART 6

## TOWARD THE FUTURE

**CHAPTER 15****Health Psychology: Challenges for the Future 324****Health Promotion 326**

- A Focus on Those at Risk 326
- Prevention 326
- A Focus on Older Adults 326
- Refocusing Health Promotion Efforts 327
- Promoting Resilience 327
- Health Promotion and Medical Practice 327
- Health Disparities 328

**Stress and Its Management 330**

- Where Is Stress Research Headed? 330

**Health Services 331**

- Building Better Consumers 331

**Management of Serious Illness 331**

- Quality-of-Life Assessment 332
- The Aging of the Population 332

**Trends in Health and Health Psychology 332**

- Research of the Future 332
- The Changing Nature of Medical Practice 333
- Systematic Documentation of Cost-Effectiveness and Treatment Effectiveness 334
- International Health 335

**Becoming a Health Psychologist 337**

- Undergraduate Experience 337
- Graduate Experience 337
- Postgraduate Work 338
- Employment 338

GLOSSARY 340

REFERENCES 350

NAME INDEX 431

SUBJECT INDEX 467

## PREFACE

When I (Dr. Taylor) wrote the first edition of *Health Psychology* over 30 years ago, the task was much simpler than it is now. Health psychology was a new field and was relatively small. In recent decades, the field has grown steadily, and great research advances have been made. Chief among these developments is the use and refinement of the biopsychosocial model: the study of health issues from the standpoint of biological, psychological, and social factors acting together. Increasingly, researchers have identified the biological pathways by which psychosocial factors such as stress may adversely affect health and potentially protective factors such as social support may buffer the impact of stress. With Dr. Stanton joining as an author, our goal in the 11th edition of this text is to convey this increasing sophistication of the field in a manner that makes it accessible, comprehensible, and exciting to undergraduates.

Like any science, health psychology is cumulative, building on past research advances to develop new ones. Accordingly, we have tried to present not only the fundamental contributions to the field but also the current research on these issues. Because health psychology is developing and changing so rapidly, it is essential that a text be up to date. Therefore, we have not only reviewed the recent research in health psychology but also obtained information about research projects that will not be available in the research literature for several years. In so doing, we are presenting a text that is both current and pointed toward the future.

A second goal is to portray health psychology appropriately as being intimately involved with the problems of our times. The aging of the population and the shift in numbers toward the later years have created unprecedented health needs to which health psychology must respond. Such efforts include the need for health promotion with this aging cohort and an understanding of the psychosocial issues that arise in response to aging and its associated chronic disorders. Because AIDS is a leading cause of death worldwide, the need for health measures such as condom use is readily apparent if we are to halt the spread of this disease. Obesity is now one of the world's leading health problems, nowhere more so than in the United States. Reversing this dire trend that threatens to shorten life expectancy worldwide is an important current goal of health psychology. Increasingly, health psychology is an international undertaking, with researchers from around the world providing insights into the problems that affect both developing and developed countries. The 11th edition includes current research that reflects the international focus of both health problems and the health research community.

Health habits lie at the origin of our most prevalent disorders, and this fact underscores more than ever the importance of modifying problematic health behaviors such as smoking and alcohol consumption. Increasingly, research documents the importance of a healthy diet, regular exercise, and weight control among other positive health habits for maintaining good health. The at-risk role has taken on more importance in prevention, as breakthroughs in genetic research have made it possible to identify genetic risks for diseases long before disease is evident. How people cope with being at risk and what interventions are appropriate for them represent important tasks for health psychology research to address.



Health psychology is both an applied field and a basic research field. Accordingly, in highlighting the accomplishments of the field, we present both the scientific progress and its important applications. Chief among these are efforts by clinical psychologists to intervene with people to treat biopsychosocial disorders, such as post traumatic stress disorder; to help people manage health habits that have become life threatening, such as eating disorders; and to develop clinical interventions that help people better manage their chronic illnesses.

Finding the right methods and venues for modifying health continues to be a critical issue. The chapters on health promotion put particular emphasis on the most promising methods for changing health behaviors. The chapters on chronic diseases highlight how knowledge of the psychosocial causes and consequences of these disorders may be used to intervene with people at risk—first, to reduce the likelihood that such disorders will develop, and second, to deal effectively with the psychosocial issues that arise following diagnosis.

The success of any text depends ultimately on its ability to communicate the content clearly to student readers and spark interest in the field. In this 11th edition, we strive to make the material interesting and relevant to the lives of student readers. Many chapters highlight news stories related to health. In addition, the presentation of material has been tied to the needs and interests of young adults. For example, the topic of stress management is tied directly to how students might manage the stresses associated with college life. The topic of problem drinking includes sections on college students' alcohol consumption and its modification. Health habits relevant to this age group—tanning, exercise, and condom use, among others—are highlighted for their relevance to the student population. By learning from anecdotes, case histories, and specific research examples that are relevant to their own lives, students learn how important this body of knowledge is to their lives as young adults.

Health psychology is a science, and consequently, it is important to communicate not only the research itself but also some understanding of how studies were designed and why they were designed that way. The explanations of particular research methods and the theories that have guided research appear throughout the book. Important studies are described in depth so that students have a sense of the methods researchers use to make decisions about how to gather the best data on a problem or how to intervene most effectively.

Throughout the book, we have made an effort to balance general coverage of psychological concepts with coverage of specific health issues. One method of doing so is by presenting groups of chapters, with the initial chapter offering general concepts and subsequent chapters applying those concepts to specific health issues. Thus, Chapter 3 discusses general strategies of health promotion, and Chapters 4 and 5 discuss those issues with specific reference to particular health habits such as exercise, smoking, accident prevention, and weight control. Chapters 11 and 12 discuss broad issues that arise in the context of managing chronic health disorders and terminal illness. In Chapters 13 and 14, these issues are addressed concretely, with reference to specific disorders such as heart disease, cancer, and AIDS.

Rather than adopt a particular theoretical emphasis throughout the book, we have attempted to maintain a flexible orientation. Because health psychology is taught within all areas of psychology (e.g., clinical, social, cognitive, physiological, learning, and developmental), material from each of these areas is included in the text so that it can be accommodated to the orientation of each instructor. Consequently, not all material in the book is relevant for all courses. Successive chapters

of the book build on each other but do not depend on each other. Chapter 2, for example, can be used as assigned reading, or it can act as a resource for students wishing to clarify their understanding of biological concepts or learn more about a particular biological system or illness. Thus, each instructor can accommodate the use of the text to his or her needs, giving some chapters more attention than others and omitting some chapters altogether, without undermining the integrity of the presentation.

## ■ NEW TO THIS EDITION

- More than 300 new citations
- Discussion of artificial intelligence and health care (Chapters 1, 9)
- Expanded coverage of web-based interventions (Chapters 1, 3, 11)
- Coverage of the significance of telomeres (Chapters 2, 6)
- Coverage of the gut–brain connection (Chapter 2)
- Discussion of telemedicine (Chapters 2, 8, 15)
- Expanded coverage of dementia (Chapters 2, 11)
- Discussion of socio cultural values and health (Chapters 3, 14)
- Expanded coverage of aging and health (Chapters 3, 4, 11, 14)
- Coverage of just-in-time interventions (Chapters 3, 15)
- Enhanced coverage of marijuana use (Chapter 5)
- New research on positive parenting, stress, and health (Chapter 6)
- Expanded coverage on the health effects of prejudice and discrimination (Chapters 6, 13, 14, 15)
- Coverage of the benefits of a sense of purpose and meaning in life (Chapter 7)
- Coverage of research on attempts to cope through actively approaching or avoiding stressful experiences (Chapter 7)
- Enhanced coverage of couples' attempts to cope with shared stressors (Chapter 7)
- Expanded coverage of mindfulness and mindfulness meditation (Chapters 7, 10)
- Enhanced coverage of the health consequences of social support and loneliness (Chapter 7)
- Discussion of the opioid crisis (Chapter 10)
- Expanded coverage of suicide (Chapter 12)
- Coverage of palliative care and end-of-life options (Chapter 12)
- Expanded discussion of bereavement (Chapter 12)
- Enhanced coverage of the prevention and treatment of HIV/AIDS (Chapter 14)
- Expanded coverage of contributors to cancer onset and progression (Chapter 14)
- The changing face of health psychology (Chapter 15)

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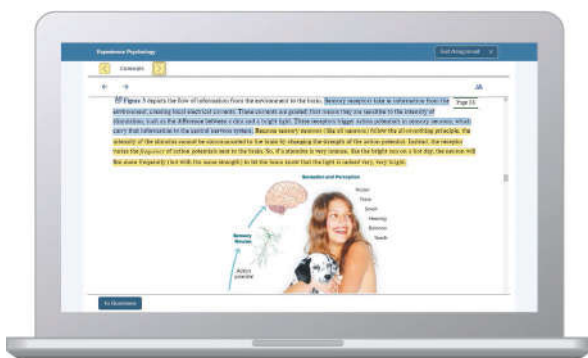
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PART

1

# Introduction to Health Psychology



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## CHAPTER

## 1

## What Is Health Psychology?



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## CHAPTER OUTLINE

**Definition of Health Psychology***Why Did Health Psychology Develop?***The Mind–Body Relationship: A Brief History****The Rise of the Biopsychosocial Model***Psychosomatic Medicine**Advantages of the Biopsychosocial Model**Clinical Implications of the Biopsychosocial Model**The Biopsychosocial Model: The Case History of Nightmare Deaths***The Need for Health Psychology***Changing Patterns of Illness**Advances in Technology and Research**Expanded Health Care Services**Increased Medical Acceptance***Health Psychology Research***The Role of Theory in Research**Experiments**Correlational Studies**Prospective and Retrospective Designs**The Role of Epidemiology in Health Psychology**Methodological Tools**Qualitative Research***What Is Health Psychology Training For?**

- “Government’s role in fighting loneliness”  
(September 12, 2018)
- “Vaccination is a social responsibility”  
(February 4, 2015)
- “Risk of concussions from youth sports”  
(December 25, 2015)
- “AI holds promise for improving diagnosis”  
(September 13, 2018)
- “Too little rest is bad for a heart” (January 22, 2019)
- “Be kind to your brain—workout” (January 22, 2019)

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

## ■ DEFINITION OF HEALTH PSYCHOLOGY

**Health psychology** is an exciting and relatively new field devoted to understanding psychological influences on how people stay healthy, why they become ill, and how they respond when they do get ill. Health psychologists both study such issues and develop interventions to help people stay well or recover from illness. For example, a health psychology researcher might explore why people continue to smoke even though they know that smoking increases their risk of cancer and heart disease. Understanding this poor health habit leads to interventions to help people stop smoking.

Fundamental to research and practice in health psychology is the definition of health. Decades ago, a forward-looking World Health Organization (1948) defined **health** as “a complete state of physical, mental, and social well-being and not merely the absence of disease or infirmity.” This definition is at the core of health psychologists’ conception of health. Rather than defining health as the absence of illness, health is recognized to be an achievement involving balance among physical, mental, and social well-being. Many use the term **wellness** to refer to this optimum state of health.

Health psychologists focus on *health promotion and maintenance*, which includes issues such as how to get children to develop good health habits, how to promote regular exercise, and how to design a media campaign to get people to improve their diets.

Health psychologists study the psychological aspects of the *prevention and treatment of illness*. A health psychologist might teach people in a high-stress occupation how to manage stress effectively to avoid health risks. A health psychologist might work with people who are already ill to help them follow their treatment regimen.

Health psychologists also focus on *the etiology and correlates of health, illness, and dysfunction*. **Etiology** refers to the origins or causes of illness. Health psychologists especially address the behavioral and social factors that contribute to health, illness, and dysfunction, such as alcohol consumption, drug use, exercise, the wearing of seat belts, and ways of coping with stress.

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

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

## Why Did Health Psychology Develop?

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

- When people are exposed to a cold virus, some get colds whereas others do not.
- Men who are married live longer than men who are not married.
- Throughout the world, life expectancy is increasing. But in countries going through dramatic social upheaval, life expectancy can plummet.
- Women live longer than men in all countries except those in which they are denied access to health care. But women are more disabled, have more illnesses, and use health services more.



- Infectious diseases such as tuberculosis, pneumonia, and influenza used to be the major causes of illness and death in the United States. Now chronic disorders such as heart disease, cancer, and diabetes are the main causes of disability and death.
- Attending a church or synagogue, praying, or otherwise tending to spiritual needs is good for your health.

By the time you have finished this book, you will know why these findings are true.

### ■ THE MIND–BODY RELATIONSHIP: A BRIEF HISTORY

During prehistoric times, most cultures regarded the mind and body as intertwined. Disease was thought to arise when evil spirits entered the body, and treatment consisted primarily of attempts to exorcise these spirits. Some skulls from the Stone Age have small, symmetrical holes that are believed to have been made intentionally with sharp tools to allow the evil spirit to leave the body while the shaman performed the treatment ritual.

The ancient Greeks were among the earliest civilizations to identify the role of bodily factors in health

and illness. Rather than ascribing illness to evil spirits, they developed a humoral theory of illness. According to this viewpoint, disease resulted when the four humors or circulating fluids of the body—blood, black bile, yellow bile, and phlegm—were out of balance. The goal of treatment was to restore balance among the humors. The Greeks also believed that the mind was important. They described personality types associated with each of the four humors, with blood being associated with a passionate temperament, black bile with sadness, yellow bile with an angry disposition, and phlegm with a laid-back approach to life. Although these theories are now known not to be true, the emphasis on mind and body in health and illness was a breakthrough for that time.

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



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

Source: The National Library of Medicine.

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

The resulting **biomedical model**, which has governed the thinking of most health practitioners for the past 300 years, maintains that all illness can be explained on the basis of aberrant somatic bodily processes, such as biochemical imbalances or neurophysiological abnormalities. The biomedical model assumes that psychological and social processes are largely irrelevant to the disease process. The problems with the biomedical model are summarized in Table 1.1.

**TABLE 1.1 | The Biomedical Model: Why Is It Ill-suited to Understanding Illness?**

- Reduces illness to low-level processes such as disordered cells and chemical imbalances
- Fails to recognize social and psychological processes as powerful influences over bodily states—assumes a mind–body dualism
- Emphasizes illness over health rather than focusing on behaviors that promote health
- Cannot address many puzzles that face practitioners: why, for example, if six people are exposed to a flu virus, do only three develop the flu?

## ■ THE RISE OF THE BIOPSYCHOSOCIAL MODEL

The biomedical viewpoint began to change with the rise of modern psychology, particularly with Sigmund Freud's (1856–1939) early work on **conversion hysteria**. According to Freud, specific unconscious conflicts can produce physical disturbances that symbolize repressed psychological conflicts. Although this viewpoint is no longer central to health psychology, it gave rise to the field of psychosomatic medicine.

## Psychosomatic Medicine

The idea that specific illnesses are produced by people's internal conflicts was perpetuated in the work of Flanders Dunbar in the 1930s (Dunbar, 1943) and Franz Alexander in the 1940s (Alexander, 1950). For example, Alexander developed a profile of the ulcer-prone personality as someone with excessive needs for dependency and love.

Dunbar and Alexander maintained that conflicts produce anxiety, which becomes unconscious and takes a physiological toll on the body via the autonomic nervous system. The continuous physiological changes eventually produce an organic disturbance. In the case of the ulcer patient, for example, repressed emotions resulting from frustrated dependency and love-seeking needs were thought to increase the secretion of acid in the stomach, eventually eroding the stomach lining and producing ulcers (Alexander, 1950).

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

We now know that all illnesses raise psychological issues. Moreover, researchers now believe that a particular conflict or personality type is not sufficient to produce illness. Rather, the onset of disease is usually due to several factors working together, which may include a biological pathogen (such as a viral or bacterial infection) coupled with social and psychological factors, such as high stress, low social support, and low socioeconomic status.

The idea that the mind and the body together determine health and illness logically implies a model for studying these issues. This model is called the **biopsychosocial model**. Its fundamental assumption is that health and illness are consequences of the interplay of biological, psychological, and social factors.

## Advantages of the Biopsychosocial Model

How does the biopsychosocial model of health and illness overcome the disadvantages of the biomedical model? The biopsychosocial model maintains that biological, psychological, and social factors are all important determinants of health and illness. Both macrolevel processes (such as the existence of social support or

the presence of depression) and microlevel processes (such as cellular disorders or chemical imbalances) continually interact to influence health and illness and their course.

The biopsychosocial model emphasizes both health and illness. From this viewpoint, health becomes something that one achieves through attention to biological, psychological, and social needs, rather than something that is taken for granted.

### Clinical Implications of the Biopsychosocial Model

The biopsychosocial model is useful for people treating patients as well. First, the process of diagnosis can benefit from understanding the interacting role of biological, psychological, and social factors in assessing a person's health or illness. Treatment can focus on all three sets of factors.

The biopsychosocial model makes explicit the significance of the relationship between patient and practitioner. An effective patient–practitioner relationship can improve a patient's use of services, the efficacy of treatment, and the rapidity with which illness is resolved.

### The Biopsychosocial Model: The Case History of Nightmare Deaths

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

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

However, most of the victims appeared to have a rare, genetically based malfunction in the heart's pacemaker. The fact that only men of particular ethnic backgrounds were affected was consistent with the potential role of a genetic factor. Also, the fact that the deaths seemed to cluster within particular families was

consistent with the genetic theory. But how and why would such a defect be triggered during sleep?

As the number of cases increased, it became evident that psychological and cultural, as well as biological, factors were involved. Some family members reported that the victim had experienced a dream foretelling the death. Among the Hmong of Laos, a refugee group that was especially plagued by these nightmare deaths, dreams are taken seriously as portents of the future. Anxiety due to these dreams, then, may have played a role in the deaths (Adler, 1991).

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

Interviews with the survivors revealed that many of the men had been watching violent TV shows shortly before retiring, and the content of the shows appeared to have made its way into some of the frightening dreams. In other cases, the fatal event occurred immediately after a family argument. Many of the men were said by their families to have been exhausted from combining demanding full-time jobs with a second job or with night school classes to learn English. The pressures to support their families had been taking their toll.

All these clues suggest that the pressures of adjusting to life in the United States played a role in the deaths. The victims may have been overwhelmed by cultural differences, language barriers, and difficulties finding satisfactory jobs. The combination of this chronic strain, a genetic susceptibility, and an immediate trigger provided by a family argument, violent television, or a frightening dream culminated in nightmare death (Lemoine & Mougne, 1983). Clearly, the biopsychosocial model unraveled this puzzle.

## ■ THE NEED FOR HEALTH PSYCHOLOGY

What factors led to the development of health psychology? Since the inception of the field of psychology in the early 20th century, psychologists have made important contributions to health, exploring how and

why some people get ill and others do not, how people adjust to their health conditions, and what factors lead people to practice health behaviors. In response to these trends, the American Psychological Association (APA) created a task force in 1973 to focus on psychology’s potential role in health research. Participants included counseling, clinical, and rehabilitation psychologists, many of whom were already employed in health settings. Independently, social psychologists, developmental psychologists, and community/environmental psychologists were developing conceptual approaches for exploring health issues (Friedman & Silver, 2007). These groups joined forces, and in 1978, the Division of Health Psychology was formed within the APA. It is safe to say that health psychology is one of the most important developments within the field of psychology in the past 50 years. What other factors have fueled the growing field of health psychology?

### Changing Patterns of Illness

An important factor influencing the rise of health psychology has been the change in illness patterns in the United States and other technologically advanced societies in recent decades. As Table 1.2 shows, until the 20th century, the major causes of illness and death in the United States were **acute disorders**. Acute disorders are short-term illnesses, often a result of a viral or bacterial invader and usually amenable to cure. The prevalence of acute infectious disorders, such as tuberculosis, influenza, measles, and poliomyelitis, has declined because of treatment innovations

and changes in public health standards, such as improvements in waste control and sewage.

Now, **chronic illnesses**—especially heart disease, cancer, and respiratory diseases—are the main contributors to disability and death, particularly in industrialized countries. Chronic illnesses are slowly developing diseases with which people live for many years and that typically cannot be cured but rather are managed by patient and health care providers. Table 1.3 lists the main diseases worldwide at the present time. Note how the causes are projected to change over the next decade or so worldwide.

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

Second, because people may live with chronic diseases for many years, psychological issues arise in their management. Health psychologists help chronically ill people adjust psychologically and socially to their changing health state and treatment regimens, many of which involve self-care. Chronic illnesses affect family functioning, including relationships with a partner or children, and health psychologists help ease the problems in family functioning that may result.

Chronic illnesses may require medication use and self-monitoring of symptoms, as well as changes in

**TABLE 1.2 | What Are the Leading Causes of Death in the United States? A Comparison of 1900 and 2017, per 100,000 Population**

1900		2017	
Influenza and pneumonia	202.2	Heart disease	165.0
Tuberculosis, all forms	194.4	Cancer	152.5
Gastroenteritis	142.7	Unintentional injuries	49.4
Diseases of the heart	137.4	Chronic lower respiratory diseases	40.9
Vascular lesions of the CNS	106.9	Stroke	37.6
Chronic nephritis	81.0	Alzheimer’s disease	31.0
All accidents	72.3	Diabetes	21.5
Malignant neoplasms (cancer)	64.0	Influenza and pneumonia	14.3
Certain diseases of early infancy	62.6	Intentional self-harm (suicide)	14.0
Diphtheria	40.3	Nephritis, nephrotic syndrome, and nephrosis	13.0

Note that some accidents and overdoses may be attempts at suicide, so it can be hard to distinguish between those two categories. Source: Xu, Jiaquan, Sherry L. Murphy, Kenneth D. Kochanek, Brigham Bastian, and Elizabeth Arias. “Deaths: Final Data for 2016.” *National Vital Statistics Reports* 67, no. 5 (July 2018): 1–76.

**TABLE 1.3 | What Are the Worldwide Causes of Death?**

2016		2030	
Rank	Disease or Injury	Projected Rank	Disease or Injury
1	Ischemic heart disease	1	Ischemic heart disease
2	Stroke	2	Stroke
3	Chronic obstructive pulmonary disease	3	Chronic obstructive pulmonary disease
4	Lower respiratory infections	4	Alzheimer's disease and other dementias
5	Alzheimer's disease and other dementias	5	Lower respiratory infections
6	Trachea, bronchus, lung cancers	6	Diabetes mellitus
7	Diabetes mellitus	7	Trachea, bronchus, lung cancers
8	Road injury	8	Kidney diseases
9	Diarrheal diseases	9	Cirrhosis of the liver
10	Tuberculosis	10	Road injury

Source: World Health Organization. "The Top 10 Causes of Death." Accessed June 10, 2019. <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>.

behavior, such as altering diet and getting exercise. Health psychologists develop interventions to help people learn these regimens and promote adherence to them.

### Advances in Technology and Research

New medical technologies and scientific advances create issues that can be addressed by health psychologists. Just in the past few years, genes have been uncovered that contribute to many diseases including breast cancer. How do we help a college student whose mother has just been diagnosed with breast cancer come to terms with her risk? If she tests positive for a breast cancer gene, how will this change her life? Health psychologists help answer such questions.

Certain treatments that prolong life may severely compromise quality of life. Increasingly, patients are asked their preferences regarding life-sustaining measures, and they may require counseling in these matters. These are just a few examples of how health psychologists respond to scientific developments.

### Expanded Health Care Services

Other factors contributing to the rise of health psychology involve the expansion of health care services. Health care is the largest service industry in the United States, and it is still growing rapidly. Americans spend more than \$3.5 trillion annually on health care (National Health Expenditures, 2017). In recent years, the health care industry has come under increasing scrutiny, as substantial increases in health care costs have

not brought improvement in basic indicators of health.

Moreover, huge disparities exist in the United States such that some individuals enjoy the very best health care available in the world while others receive little health care except in emergencies. Prior to the Affordable Care Act (known as Obamacare), 49.9 million Americans had no health insurance at all (U.S. Census Bureau, 2011). Efforts to reform the health care system to provide all Americans with a basic health care package, similar to what already exists in most European countries, have resulted.

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

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

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



*In the 19th and 20th centuries, great strides were made in the technical basis of medicine. As a result, physicians looked more and more to the medical laboratory and less to the mind as a way of understanding the onset and progression of illness.*  
image 100/age fotostock

### Increased Medical Acceptance

There is an increasing acceptance of health psychologists within the medical community. Health psychologists have developed a variety of short-term behavioral interventions to address health-related problems, including managing pain, modifying bad health habits such as smoking, and controlling the side effects of treatments. Techniques that may take a few hours to teach can produce years of benefit. Such interventions, particularly those that target risk factors such as diet or smoking, have contributed to the decline in the incidence of some diseases, especially coronary heart disease.

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

medical procedures such as surgery improves their adjustment (Janis, 1958; Johnson, 1984). As a consequence of these studies, many hospitals and other treatment centers now routinely prepare patients for such procedures.

Ultimately, if a health-related discipline is to flourish, it must demonstrate a strong track record, not only as a research field but as a basis for interventions as well. Health psychology fulfills both the tasks.

## ■ HEALTH PSYCHOLOGY RESEARCH

Health psychologists make important research contributions to understand health and illness (Riley, 2017). The health psychologist can be a valuable team member by providing the theoretical, methodological, and statistical expertise that is the hallmark of good training in psychology.

### The Role of Theory in Research

Although much research in health psychology is guided by practical problems, such as how to ease the transition from hospital to home care, about one-third of health psychology investigations are guided by theory (Painter, Borba, Hynes, Mays, & Glanz, 2008). A **theory** is a set of analytic statements that explain a set of phenomena, such as why people practice poor health behaviors. The best theories are simple and useful. We will highlight a number of such theories throughout this book.

The advantages of theory for guiding research and treatment are several. Theories provide guidelines for how to do research and interventions (Masters, 2018). For example, the general principles of cognitive-behavioral therapy can tell one investigator what components should go into an intervention with breast cancer patients to help them cope with the aftermath of surgery, and these same principles can help a different investigator develop a weight loss intervention for obese people.

Theories generate specific predictions, so they can be tested and modified as the evidence comes in. For example, testing theories of health behavior change revealed that people need to believe that they can change their behavior, and so the importance of self-efficacy has been incorporated into theories of health behaviors.

Theories help tie together loose ends. Everyone knows that smokers relapse, people go off their diets, and alcoholics have trouble remaining abstinent. A theory of relapse unites these scattered observations