To my parents Alfio and Rosetta, and my uncle Albert.

In memory and gratitude.

Marie L. Caltabiano
# Brief contents

## PART 1  An introduction: basic issues and processes  1
- Chapter 1  An overview of psychology and health  2
- Chapter 2  The body’s physical systems  45

## PART 2  Stress, illness and coping  85
- Chapter 3  Stress – its meaning, impact and sources  86
- Chapter 4  Stress, biopsychosocial factors and illness  130
- Chapter 5  Coping with and reducing stress  178

## PART 3  Lifestyles to enhance health and prevent illness  213
- Chapter 6  Health-related behaviour and health promotion  214
- Chapter 7  Reducing substance use and abuse  272
- Chapter 8  Improving nutrition, weight control and diet, physical activity and safety  323

## PART 4  Becoming ill and getting medical treatment  373
- Chapter 9  Using health services  374
- Chapter 10  In the hospital: the setting, procedures and effects on patients  420

## PART 5  Physical symptoms: pain and discomfort  459
- Chapter 11  The nature and symptoms of pain  460
- Chapter 12  Managing and controlling clinical pain  498

## PART 6  Chronic and life-threatening health problems  533
- Chapter 13  Serious and disabling chronic illnesses: causes, management and coping  534
- Chapter 14  Heart disease, stroke, cancer and AIDS: causes, management and coping  575

## PART 7  Looking to the future  623
- Chapter 15  What’s ahead for health psychology?  624
Contents

Preface xii
To the student xv
About the authors xvii
Acknowledgements xviii

PART 1 An introduction: basic issues and processes 1

Chapter 1 An overview of psychology and health 2
What is health? 3
An illness/wellness continuum 4
Illness today and in the past 5
Viewpoints from history: physiology, disease processes and the mind 8
Early cultures 8
Ancient Greece and Rome 8
The Middle Ages 9
The Renaissance and after 10
Seeing a need: psychology's role in health 11
Overcoming problems with the Australian health care system 11
'The person' in health and illness 12
Assess yourself
How health conscious are you? 14
How the role of psychology emerged 15
Health psychology in Australia 18
Where is health psychology taught in Australia? 22
Current perspectives on health and illness 22
The biopsychosocial perspective 22
The life-span perspective 26
Relating health psychology to other science fields 27
Related fields 27
Health and psychology across cultures 28
Highlight on issues
Careers relating to health and psychology 30
Research methods 33
Experiments 33
Correlational studies 36
Quasi-experimental studies 37

Focus on research
The Australian Longitudinal Study of Ageing 40
Genetics research 41
Which research method is best? 42
Summary 42

Chapter 2 The body's physical systems 45
The nervous system 46
How the nervous system works 46
The central nervous system 48
The peripheral nervous system 53
The endocrine system 56
The endocrine and nervous systems working together 56
Adrenal glands 57
Other glands 57
The digestive system 58
Food's journey through digestive organs 58
Highlight on issues
Our physiological individuality 60
Using nutrients in metabolism 62
The respiratory system 64
The respiratory tract 64
Highlight on issues
How many calories do you burn while resting? 65
Respiratory function and disorders 65
The cardiovascular system 66
The heart and blood vessels 67
Blood pressure 68
Blood composition 70
Cardiovascular disorders 71
The immune system 72
Antigens 72
The organs of the immune system 73
Soldiers of the immune system 74
Highlight on issues
When the immune system turns on itself 76
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing stress reactions: stress management</td>
<td>195</td>
</tr>
<tr>
<td>Medication</td>
<td>195</td>
</tr>
<tr>
<td>Behavioural and cognitive methods</td>
<td>195</td>
</tr>
<tr>
<td><strong>Focus on research</strong></td>
<td></td>
</tr>
<tr>
<td>Stress management at the population level</td>
<td>203</td>
</tr>
<tr>
<td>Massage, meditation and hypnosis</td>
<td>204</td>
</tr>
<tr>
<td>Using stress management to reduce coronary risk</td>
<td>206</td>
</tr>
<tr>
<td>Modifying Type A behaviour</td>
<td>206</td>
</tr>
<tr>
<td>Treating hypertension</td>
<td>209</td>
</tr>
<tr>
<td>Minimising risk of cardiac recurrence</td>
<td>210</td>
</tr>
<tr>
<td>Summary</td>
<td>211</td>
</tr>
<tr>
<td><strong>PART 3 Lifestyles to enhance health and prevent illness</strong></td>
<td>213</td>
</tr>
<tr>
<td>Health and behaviour and health promotion</td>
<td>214</td>
</tr>
<tr>
<td>Health and behaviour</td>
<td>215</td>
</tr>
<tr>
<td>Lifestyles, risk factors and health</td>
<td>216</td>
</tr>
<tr>
<td>Interdisciplinary perspectives on preventing illness</td>
<td>220</td>
</tr>
<tr>
<td><strong>Highlight on issues</strong></td>
<td></td>
</tr>
<tr>
<td>Two health behaviours: breast and testicular examinations</td>
<td>221</td>
</tr>
<tr>
<td>Problems in promoting wellness</td>
<td>224</td>
</tr>
<tr>
<td>What determines people's health-related behaviour</td>
<td>226</td>
</tr>
<tr>
<td>General factors in health-related behaviour</td>
<td>226</td>
</tr>
<tr>
<td>The role of beliefs and intentions</td>
<td>229</td>
</tr>
<tr>
<td>The role of less rational processes</td>
<td>238</td>
</tr>
<tr>
<td>Developmental, gender and sociocultural factors in health</td>
<td>241</td>
</tr>
<tr>
<td>Development and health-related behaviour</td>
<td>241</td>
</tr>
<tr>
<td>Gender and health-related behaviour</td>
<td>245</td>
</tr>
<tr>
<td>Sociocultural factors and health-related behaviour</td>
<td>246</td>
</tr>
<tr>
<td>Programs for health promotion</td>
<td>248</td>
</tr>
<tr>
<td>Methods for promoting health</td>
<td>248</td>
</tr>
<tr>
<td>Promoting health in schools</td>
<td>254</td>
</tr>
<tr>
<td>Workplace health promotion</td>
<td>255</td>
</tr>
<tr>
<td><strong>Highlight on issues</strong></td>
<td></td>
</tr>
<tr>
<td>Indigenous children's health</td>
<td>257</td>
</tr>
<tr>
<td>Community health promotion</td>
<td>258</td>
</tr>
<tr>
<td>Prevention with specific targets: community and school approaches</td>
<td>261</td>
</tr>
<tr>
<td>Prevention in the prevention of obesity</td>
<td>262</td>
</tr>
<tr>
<td>Focus on research</td>
<td></td>
</tr>
<tr>
<td>Socioeconomic status and food purchasing</td>
<td>264</td>
</tr>
<tr>
<td>Prevention with specific targets: focusing on AIDS</td>
<td>265</td>
</tr>
<tr>
<td>Assess yourself</td>
<td></td>
</tr>
<tr>
<td>Your knowledge about AIDS</td>
<td>266</td>
</tr>
<tr>
<td>Summary</td>
<td>270</td>
</tr>
<tr>
<td>Chapter 7 Reducing substance use and abuse</td>
<td>272</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>273</td>
</tr>
<tr>
<td>Addiction and dependence</td>
<td>273</td>
</tr>
<tr>
<td>Processes leading to dependence</td>
<td>274</td>
</tr>
<tr>
<td>Smoking tobacco</td>
<td>276</td>
</tr>
<tr>
<td>Who smokes?</td>
<td>277</td>
</tr>
<tr>
<td>How much smokers smoke</td>
<td>279</td>
</tr>
<tr>
<td>Why people smoke</td>
<td>279</td>
</tr>
<tr>
<td>Smoking and health</td>
<td>285</td>
</tr>
<tr>
<td><strong>Highlight on issues</strong></td>
<td></td>
</tr>
<tr>
<td>Does someone else's smoking affect your health?</td>
<td>288</td>
</tr>
<tr>
<td>Preventing smoking</td>
<td>289</td>
</tr>
<tr>
<td>Quitting smoking</td>
<td>291</td>
</tr>
<tr>
<td>Alcohol use and abuse</td>
<td>298</td>
</tr>
<tr>
<td>Who drinks, and how much?</td>
<td>299</td>
</tr>
<tr>
<td><strong>Assess yourself</strong></td>
<td></td>
</tr>
<tr>
<td>What's true about drinking?</td>
<td>300</td>
</tr>
<tr>
<td>Why people use and abuse alcohol</td>
<td>302</td>
</tr>
<tr>
<td><strong>Assess yourself</strong></td>
<td></td>
</tr>
<tr>
<td>Do you abuse alcohol?</td>
<td>303</td>
</tr>
<tr>
<td>Drinking and health</td>
<td>304</td>
</tr>
<tr>
<td>Focus on research</td>
<td></td>
</tr>
<tr>
<td>How does heredity lead to alcohol abuse?</td>
<td>305</td>
</tr>
<tr>
<td>Preventing alcohol abuse</td>
<td>307</td>
</tr>
<tr>
<td>Treatments for alcohol abuse</td>
<td>308</td>
</tr>
<tr>
<td>Drug use and abuse</td>
<td>314</td>
</tr>
<tr>
<td><strong>Highlight on issues</strong></td>
<td></td>
</tr>
<tr>
<td>Types and effects of drugs</td>
<td>315</td>
</tr>
<tr>
<td>Who uses drugs, and why</td>
<td>316</td>
</tr>
<tr>
<td>Drug use and health</td>
<td>318</td>
</tr>
<tr>
<td>Preventing and stopping drug abuse</td>
<td>318</td>
</tr>
<tr>
<td>Summary</td>
<td>320</td>
</tr>
</tbody>
</table>
### Chapter 8  Improving nutrition, weight control and diet, physical activity and safety  323

**Nutrition**  324
- Components of food  325
- What people eat  326
- Nutrition and health  329
  - Focus on research  
    - Interventions to improve dietary components  332
**Weight control and body image**  333
  - Assess yourself  
    - How do you score on eating efficacy?  347
- Overweight and obesity  337
- Dieting and treatments to lose weight  346
  - Assess yourself  
    - Your weight control patterns  353
**Physical activity**  358
- The health effects of exercise  358
  - Highlight on issues  
    - Types and amounts of healthy exercise  360
- Who gets enough physical activity, who does not — and why  362
- Promoting physical activity  364
**Safety and harm reduction**  366
- Accidents  366
- Environmental hazards  367

**Summary**  370

### PART 4  Becoming ill and getting medical treatment  373

### Chapter 9  Using health services  374

**Types of health services**  375
- Specialised functions of practitioners  375
- Office-based and in-patient treatment  376
- The Australian health care system  377
- The New Zealand health and disability system  378
- Health care systems in other countries  379
**Perceiving and interpreting symptoms**  380
- Perceiving symptoms  381
- Interpreting and responding to symptoms  384
  - Focus on research  
    - People’s ideas about illness  386
  - Illness cognition and self-regulation  387
**Using and misusing health services**  389
- Who uses health services?  389
- Why people use, don’t use and delay using health services  392
- Using complementary and alternative medicine  394
- Misusing health services  396
  - Focus on research  
    - Neuroticism and symptom presentation  397
- The patient–practitioner relationship  398
- Patient preferences for participation in medical care  398
- The practitioner’s behaviour and style  400
  - Highlight on issues  
    - Fighting for your life  401
- The patient’s behaviour and style  403
  - Assess yourself  
    - Do you know what medical terms mean?  403
- Adherence: adhering to medical advice  405
  - Extent of the non-adherence problem  405
  - Why patients do and do not adhere to medical advice  407
- Patient–practitioner interactions  412
- Increasing patient adherence  414

**Summary**  417

### Chapter 10  In the hospital: the setting, procedures and effects on patients  420

**The hospital — its history, setting and procedures**  421
- How the hospital evolved  422
- The organisation and functioning of hospitals  423
- Roles, goals and communication  424
  - Assess yourself  
    - Who’s who in physician care  425
- The funding of medical services  427
**Being hospitalised**  429
- Relations with the hospital staff  429
- Sick-role behaviour in the hospital  431
Focus on research
Burnout among health care professionals 431
Patient satisfaction 436
Emotional adjustment in the hospital 436
Coping processes in hospital patients 437
Preparing patients for stressful medical procedures 440
Highlight on issues
Lamaze training as a method of psychological preparation for a medical procedure 446
When the hospitalised patient is a child 447
How health psychologists assist hospitalised patients 453
Initial steps in helping 453
Tests for psychological assessment of medical patients 454
Promoting patients’ health and adjustment 455
Summary 456

PART 5 Physical symptoms: pain and discomfort 459

Chapter 11 The nature and symptoms of pain 460

What is pain? 461
The qualities and dimensions of pain 462
Perceiving pain 464
Highlight on issues
Acute pain in burn patients 465
Highlight on issues
Trauma and pain: the Bali bombing and its aftermath 467
Theories of pain 470
Early theories of pain 470
The gate-control theory of pain 471
Focus on research
Inducing pain in laboratory research 471
Biopsychosocial aspects of pain 476
Neurochemical transmission and inhibition of pain 476
Personal and social experiences and pain 478
Highlight on issues
Placebos and pain 479
Emotions, coping processes and pain 482
Assessing people’s pain 486
Self-report methods 486
Behavioural assessment approaches 489
Assess yourself
Describing your pain 490
Psychophysiological measures 493
Pain in children 494
Pain and children’s sensory and cognitive development 494
Assessing pain in children 495
Summary 496

Chapter 12 Managing and controlling clinical pain 498

Clinical pain 499
Acute clinical pain 500
Chronic clinical pain 500
Medical treatments for pain 501
Surgical methods for treating pain 502
Chemical methods for treating pain 502
Highlight on issues
Types of pain-relieving chemicals 504
Behavioural and cognitive methods for treating pain 507
The operant approach 507
Relaxation and biofeedback 508
Cognitive techniques 512
Focus on research
How durable are the effects of psychological treatments for pain? 513
Preparation for events with potentially painful consequences 518
Assess yourself
Would behavioural or cognitive methods help your pain? 519
Hypnosis and insight-oriented psychotherapy 520
Hypnosis as a treatment for pain 521
Insight therapy for pain 522
Physiotherapy and stimulation therapies for pain 524
Stimulation therapies 524
Physiotherapy 526
Pain clinics 527
Multidisciplinary programs 527
PART 6 Chronic and life-threatening health problems 533

Chapter 13 Serious and disabling chronic illnesses: causes, management and coping 534

Adjusting to a chronic illness 535
  Initial reactions to having a chronic condition 536
  Influences on coping with a health crisis 537
  The coping process 541

Impacts of different chronic conditions 543
  Asthma 544
  Epilepsy 548
  Nervous system injuries 550
  Diabetes 553

Assess yourself
  Do you have diabetes? 556

Highlight on issues
  Self-managing diabetes 559

Arthritis 561
  Alzheimer’s disease 564

Psychosocial interventions for people with chronic conditions 567
  Education and support services 569
  Relaxation and biofeedback 570
  Cognitive approaches 571
  Insight therapy 571
  Family therapy 571

Focus on research
  Cognitive/behavioural approaches in managing arthritis 572

Summary 573

Chapter 14 Heart disease, stroke, cancer and AIDS: causes, management and coping 575

Coping with and adapting to high-mortality illness 577
  Adapting while the prospects seem good 577
  Adapting in a recurrence or relapse 578

Heart disease 579
  Who is at risk of heart disease, and why? 580
  Medical treatment and rehabilitation of cardiac patients 582
  The psychosocial impact of heart disease 585
  Psychosocial interventions for heart disease 587

Stroke 588
  Causes, effects and rehabilitation of stroke 588

Cancer 593
  The prevalence and types of cancer 594
  The sites, effects and causes of cancer 594
  Diagnosing and treating cancer 597
  The psychosocial impact of cancer 599

Focus on research
  Coping with chemotherapy and its side effects 601
  Psychosocial interventions for cancer 602

Highlight on issues
  Can patients ‘will away’ their cancer? 604

AIDS 605
  Risk factors, effects and treatment of AIDS 605
  The psychosocial impact of AIDS 608
  Psychosocial interventions for AIDS 609

Adapting to a terminal illness 610
  The patient’s age 610
  Psychosocial adjustments to terminal illness 612

The quality of life in death 614
  Medical and psychological care of dying patients 615

Assess yourself
  Your living will choices 616
  A place to die — hospital, home or hospice? 617
  The survivors: and life goes on 619

Summary 621
PART 7 Looking to the future 623

Chapter 15 What’s ahead for health psychology? 624

Goals for health psychology 625
   Enhancing illness prevention and treatment 625
   Improving efforts for helping patients cope 628
   Documenting the efficacy and cost–benefit ratio of care 628
   Enhancing psychologists’ acceptance in medical settings 630

Careers and training in health psychology 631
   Career opportunities 632
   Training programs 632

Issues and controversies for the future 633
   Environment, health and psychology 633
   Quality of life 634
   Ethical decisions in medical care 635

Future focuses in health psychology 638
   Critical health psychology 638

Assess yourself
   Some ethical dilemmas: what do you think? 639

Focus on research
   Treating infant sleep disturbance (ISD) — the Canterbury Infant Sleep Project 641

Sociocultural factors in health 642
   Gender differences and women’s health issues 643

Factors affecting health psychology’s future 643

Summary 644

Appendix 646

Glossary 647

References 657

Index 745
It was with great enthusiasm and pleasure that we embarked on writing this second Australasian edition of *Health Psychology*. When I (Marie Caltabiano) was originally approached by John Wiley Australia to write an Australasian adaptation of Edward Sarafino's *Health Psychology: Biopsychosocial Interactions*, I was extremely excited and felt very privileged to be involved in the project. I have taught health psychology in the psychology degree program at James Cook University since 1992, and have also taught variations of the subject to nursing science and social work students. While I have adopted several different texts for these courses, I have often returned to Sarafino's book. This widely respected text is comprehensive, easy to read and well liked by students. Over time, however, I came to recognise the need for a text that was relevant to the experience of students in Australia and the neighbouring region. Students needed a resource book that was similarly comprehensive, but that cited up-to-date Australian and New Zealand statistics on disease incidence and prevalence, discussed the Australian health care system and the New Zealand Health and Disability System, examined the findings of national surveys, reviewed Australian health promotion programs and discussed studies by Australasian researchers.

The objective of this second Australasian edition has been to update Sarafino's text with recent research conducted both within Australia and internationally. We have incorporated Australian and New Zealand statistics (for example, on disease and mortality incidence, and health risk) and documented Australian health programs and research conducted by health psychologists, public health researchers and those working in related fields.

Our task was facilitated by the wealth of creative ideas and innovative research in Australia and the nearby region coming out of professions such as public health, psychology and nursing. Although it was not possible to incorporate all these ideas, I believe that the research included represents the high quality of work being done in Australia and New Zealand.

This second edition still retains historical material on infectious diseases during the early settlement of Australia, trends over time in eating, drinking and smoking patterns, an historical account of hospitals in Australia and the organisational structure within hospitals, along with anecdotal data and the recounted experiences of well-known Australians. Also retained are the sections unique to the original text adaptation, such as psychosocial responses to disaster and traumatic events (chapter 3); social support as transactional process (chapter 4); applications of the theories of reasoned action and planned behaviour (chapter 6); and the use of the PRECEDE/PROCEED model as a guiding framework for health promotion in community health psychology (chapter 6). New to the second edition are recent smoking, drug and alcohol statistics for Australia and New Zealand, and prevalence rates for obesity and physical inactivity in the region. Also included in this edition is new material on stress (chapter 3) and social support (chapter 4); prevention with specific targets: focusing on community and school approaches in the prevention of obesity (chapter 6); overweight and body image (chapter 8); the New Zealand health and disability system, illness cognition and self-regulation (chapter 9); and advances in research and theory, technology and medical research, and critical health psychology (chapter 15). Other features include new prologues to chapters; Australasian research canvassed in the ‘Focus on research’ vignettes of respective chapters; the latest international research; significant and recent national health promotion initiatives; contemporary health issues; examples of applied theory in randomised controlled trials and interventions; recent global threats to health; and the psychological impact of terrorism. This new material serves to complement Sarafino while maintaining the integrity of the original text.
One additional theme makes this book unique — namely, its sustained focus on lifespan development in health and illness. The book discusses how health and health-related behaviour change with age, and describes health care issues and examples that pertain to pediatric and elderly patients. With the increasing trend towards an elderly population in Australia and neighbouring countries, throughout the book you will find examples of research specifically on the elderly; for example, immune functioning in older persons (chapter 2), and social support systems of elderly Australians (chapter 1). At the other end of the lifespan, health issues such as infant sleep disturbance and its treatment are considered. Developmental trajectories in smoking, drinking and drug usage are described in chapter 7.

The biopsychosocial model remains the basic explanatory theme for understanding the whole person in health and illness. The components of the model interrelate in a dynamic and continuous fashion, consistent with the concept of systems. The psychological research cited reflects an eclectic orientation and supports a variety of behavioural, physiological, cognitive and social–personality viewpoints. In addition, gender and sociocultural differences in health and related behaviours are addressed at many points in the book. In these ways, this book presents a balanced view of health psychology, positioning it squarely in the mainstream of current thinking in the field.

Health Psychology: Biopsychosocial Interactions, second Australasian edition draws on the research and theoretical perspectives of many disciplines to illustrate the interrelationship of psychology and health. This depth makes it a teaching resource suitable for undergraduate and postgraduate courses on health psychology or behavioural medicine taught within psychology degree programs, nursing science or medicine. The material will be relevant and interesting to students from disciplines other than psychology, such as public health, nursing, medicine, allied health and social work. Undergraduate training in health psychology has developed rapidly and can play an important role in helping students from many disciplines to understand the interplay of biological, psychological and social factors in people’s health. The text, and the exhaustive bibliography, will also be a valuable resource for practitioners and researchers in allied health professions.

The field of health psychology is exciting because of its relative infancy in Australia. It can be seen as a focal point for the application of psychological principles and psychological theory emanating from many other fields within psychology. Health psychology is particularly interesting because of its relevance to the lives of students, the researchers who study biopsychosocial aspects of health and illness, and the people students will work with in the future. Researchers from many disciplines, including psychology, are uncovering fascinating relationships between behaviour and health, and learning more about the roles of cognition, emotion and personality in health, adjustment to medical conditions and rehabilitation. Keeping up to date across such a broad field has been a challenge. In addition to some 2000 publications cited by Sarafino, close to another 1000, most published in the past few years, have been cited in this Australasian edition.

Writing this book has been both a major undertaking and a very rewarding experience. We have read more deeply in the literature than could possibly be acknowledged here, and we are greatly indebted to all those researchers whose work we have cited. As Sarafino has remarked, without their endeavours there would be no health psychology. Professor Don Byrne agreed to co-author this second edition and to offer his expertise, accrued over many years of working in this field. Thanks are extended also to Professor Paul Martin for his work on the original chapters 11 and 12.
There are a number of other people whose contribution we would like to acknowledge. At John Wiley & Sons Australia, we are indebted to publishing editor Nina Crisp for her enthusiasm in the early stages of this project, and later to development editor Dan Logovik for his patience, encouragement and assistance in making this second edition possible. A special thank you is extended to manuscript development manager, Jason Gray, for his insight, guidance and helpful suggestions. A number of other people deserve special acknowledgement — namely, project editor Catherine Spedding, coordinating editor Gabrielle Brady and the Wiley production staff.

Other individuals deserve mention. Thanks are extended to the Head of the School of Arts and Social Sciences at James Cook University, Professor Colin Ryan, for his support and many kind words of encouragement during the early stages of writing this book. Marie Caltabiano would also like to thank the Head of the Psychology Discipline, Associate Professor Frances Quirk, for her patience and understanding. She would also like to thank the countless academics both within and outside her field who have had a significant influence on her work. Of her family, she would like to thank most especially her best friend, sister and colleague, Dr Nerina Caltabiano, and her niece Amelia for their unwavering support. Don Byrne would like to thank Mrs Kerry Thomas, his research assistant, for her help in finding and keeping track of many new references. He became Head of School during the writing of this edition and has appreciated the forbearance of his School Administrator when other tasks gave way to the book. And as always, Anne and Edward were there to provide that essential work–life balance — and for being there, he is deeply grateful. Finally, thank you to the students, who make all this work worthwhile.

Marie L. Caltabiano
Don Byrne
December 2007
‘I wish I could help my father stop smoking’, a student in one of our health psychology courses said. Maybe she did help — he had quit by the end of the semester. This example points out two things that will probably make health psychology interesting to you: (1) the material is personally relevant and (2) many of the things you learn can actually be applied in your everyday life. Studying health psychology will also help you answer important questions you may have considered about health and psychology in the past. Does the mind affect our health — and if so, how? What effect does stress have on health and recovery from illness? What can be done to help people lead healthier lives than they do? Why don’t patients follow their doctors’ advice, and what can health care workers do to help? What special needs do children have as patients, and how can parents and health care workers address these needs? How can families, friends, and health care workers help patients adjust to disabling or life-threatening health problems?

As these questions indicate, a knowledge of health psychology can be relevant both now and later when you enter your future career. This is so whether you are studying to be a psychologist, medical social worker, nurse or doctor, physical or occupational therapist, public health worker or health educator. You will learn in this book that the relationship between a person’s health and psychology involves a ‘two-way street’ — each affects the other. Psychological factors go hand in hand with medical approaches in preventing and treating illness and in helping patients adjust to the health problems they develop.

THE BOOK
This book was designed for you, the reader. First and foremost, it provides a thorough and up-to-date presentation of the major issues, theories, concepts and research in health psychology undertaken both within and outside Australia. Throughout the book, the major point of view is ‘biopsychosocial’ — that is, that health and illness influence and result from the interplay of biological, psychological and social aspects of people’s lives. Because integrating these aspects involves complex concepts and technical material, we have made special efforts to write in a straightforward, clear and engaging fashion. When a new term is introduced it is defined immediately; important terms are set in bold type, listed as ‘key terms’ at the end of the chapter and defined in the glossary at the back of the book. Examples and case studies are included to clarify sometimes complex concepts.

Three types of boxed feature are presented throughout the book in order to illustrate or elaborate on surrounding content. These features are identified in the text by the corresponding icons.

Highlight on issues. Applied, high-interest and new frontier topics are highlighted here. They feature issues such as when the immune system turns on itself, sudden ‘voodoo’ death, the burden of caregiving, careers relating to health and psychology, breast and testicular self-examination, coping with terrorism, and acute pain in burn patients.

Focus on research. These features spotlight the research methods used in health psychology, reviewing unique or interesting research findings on topics such as heredity and alcohol abuse, socioeconomic status and food purchasing behaviour, inducing pain in laboratory research, stress management at the population level, and coping with chemotherapy and its side effects.

Assess yourself. Here students are given the opportunity to examine their own health-related characteristics, knowledge and beliefs on issues such as daily hassles, eating self-efficacy, alcohol use, AIDS, responding to pain, social support and ethical questions.

To help you absorb the material and remember it longer, the book also includes the following learning aids.

• Chapter contents and prologue. Each chapter begins with a contents list that outlines the major topics in the order in which they are covered. The prologue then introduces the chapter with a vignette that is relevant to the material ahead and gives an overview of the ideas you will read about.

• Illustrations. The many figures and tables in each chapter are designed to clarify concepts and research findings and help them stick in your mind.
- Summary and key terms. Each chapter closes with two features: (1) the summary, which presents the most important ideas covered, and (2) the key terms — a list of the most important terms in the chapter.
- Glossary. The glossary at the back of the book gives definitions of important terms and concepts, along with pronunciation keys for the most difficult words. It will be useful when you are studying or reading and are not sure of the exact meaning or pronunciation of a term.

ORGANISATION
The text is organised so that the main focus progresses across chapters from primary prevention (parts 1 to 3), through secondary prevention (parts 4 and 5), to tertiary prevention and care (part 6). The book is divided into seven parts.

Part 1. Chapter 1 presents a history and overview of health psychology, and introduces the main concepts and research methods used. Chapter 2 introduces the body's physical systems to help the student to understand how these systems interrelate. This introduction provides students with a useful resource to refer to when each system is discussed in later chapters. (You will note in the sections on metabolism and body weight that we have retained the imperial unit of measure, the calorie, since this term remains more generally recognised than the kilojoule. The metric equivalent of one calorie is 4.186 kilojoules.)

Part 2. Chapters 3 and 4 examine stress in relation to illness, and chapter 5 looks at ways of coping with and reducing stress. The position of this discussion early in the book recognises stress's influence on a wide range of health-related problems.

Part 3. The following chapters consider largely non-clinical approaches to enhancing health and preventing illness. Chapter 6 discusses health-related behaviours and public health promotion programs. Chapter 7 focuses on smoking, and on alcohol and drug use and abuse. Chapter 8 considers nutrition, weight control, body image, physical activity and safety issues.

Part 4. Chapter 9 describes the kinds of health services available in Australia and New Zealand, the patient-practitioner relationship, patients' adherence to medical regimes, and the effect of illness cognition on self-regulation of health. Chapter 10 introduces the hospital setting, staff and procedures, how patients cope with the physical and mental stresses they experience there, and the role of health psychologists in this coping process.

Part 5. Pain is the focus of the next two chapters. Chapter 11 explores the nature of clinical pain and its symptoms, while chapter 12 discusses medical and psychosocial approaches to managing and controlling pain.

Part 6. The following two chapters emphasise tertiary prevention through an examination of chronic and life-threatening health problems. Chapter 13 addresses serious chronic illnesses, such as asthma, diabetes and arthritis, along with their medical and psychosocial treatments. Chapter 14 examines four high-mortality illnesses — heart disease, stroke, cancer and AIDS — and people's experiences with terminal illness and death.

Part 7. Finally, chapter 15 looks to the future of health psychology, its goals and controversies and, not least, career opportunities in the field in Australia.

STUDY HINTS
There are many ways you can use the features of this book to learn and study well, and you may want to 'experiment' to find the best way for you. The following is one method that works well for many students.

1. Survey the chapter first. Read the contents list and browse through the chapter, examining the figures and tables. Some students also find it useful to read the summary first, even though it contains terms they may not yet understand. Then read the prologue. As you begin each new section of the chapter, look at its title and turn it into a question. Thus, the heading early in chapter 1, 'An illness/wellness continuum', might become 'What is an illness/wellness continuum?' Doing this helps you focus on your reading. After reading the section, reflect on what you have just read. Can you answer the question you asked when you reworded the title?

2. When you have finished the body of the chapter, review what you have read by reading the summary and trying to define the items in the list of key terms. If there is something you do not understand, look it up in the chapter or glossary. Last, re-read the chapter at least once, concentrating on the important concepts or ideas. You may find it helpful to underline or highlight selected material now that you have a good idea of what is important. If your exam will consist of 'objective' questions, such as multiple choice, using this approach intensively should be effective. If your exam will have essay items, you will probably find it helpful to develop a list of likely questions and write an outline or a complete answer for each one.

3. We hope that you enjoy this book, that you learn a great deal from it, and that you will share our enthusiasm and fascination for health psychology by the time you finish the course.

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Dr Marie L. Caltabiano is a senior lecturer in the Department of Psychology, within the School of Arts and Social Sciences at James Cook University, Cairns campus. Her interest in health psychology began with her doctoral research into the stress-moderating benefits of leisure. Her research has been in the areas of the psychosocial aspects of stress, stress management, immunocompetence, burnout, craving and disordered eating, parental coping, adolescent health risk behaviours, resilience in the elderly, women's health, fatigue in renal patients, performance appraisal in casual nursing and self-regulation in diabetes. She has published papers in the *Australian and New Zealand Journal of Public Health*, *Climacteric*, *Psychological Reports*, the *Journal of Social Psychology*, the *Australian Journal of Marriage and Family*, *Nursing and Health Sciences*, *Journal of Clinical Nursing*, *Leisure Studies*, *Society and Leisure* and *Adolescence*. Dr Caltabiano is a member of the Australian Psychological Society, the APS College of Health Psychologists, the American Psychological Society, the Public Health Association of Australia and the International Federation of University Women. She has been on the advisory board of the international journals *Human Relations* and *Perceptual and Motor Skills*.

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Professor Don Byrne is Professor of Clinical and Health Psychology, and Head of the School of Psychology at the Australian National University. For six years he was Deputy Dean of the Faculty of Science at the ANU and has chaired the University's research grants committee. His research interests include the roles of stress and behaviour in mediating risk of cardiovascular disease; the measurement, causes and management of occupational stress; and the role of stress in the development of health risk behaviours in children and adolescents. Research in these and related areas has resulted in the publication of 12 books (as author or editor) and more than 130 papers in refereed journals or as invited book chapters. Professor Byrne is a Fellow of the Academy of the Social Sciences in Australia, and of the Australian Psychological Society. He is also a member of the College of Clinical Psychologists of the Australian Psychological Society. He is a past president of the International College of Psychosomatic Medicine. Professor Byrne retains an active interest in the training of psychologists in Australia, and sits on the Professional Development and Accreditation Committee of the Australian Psychology Accreditation Council. He was foundation chair of the Australian Capital Territory Psychologists Board from its inception in 1995 and chaired the Board until 2001.

Edward P. Sarafino received his PhD from the University of Colorado and began his affiliation with the Department of Psychology at The College of New Jersey more than three decades ago. His scholarship has combined areas of health and developmental and behaviour psychology, particularly with regard to the study of asthma. In addition to having published dozens of research articles and chapters, he is the author of six books. He is a fellow of Division 38 (Health Psychology) of the American Psychological Association, served as an officer (Secretary) of that division, and has been a member of several committees of Division 38 and of the Society of Behavioural Medicine.
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