

the psychology of health and health care

A CANADIAN PERSPECTIVE FIFTH EDITION

GARY POOLE

UNIVERSITY OF BRITISH COLUMBIA

DEBORAH HUNT MATHESON

VANCOUVER ISLAND UNIVERSITY

DAVID N. COX

SIMON FRASER UNIVERSITY

PEARSON

Toronto

Vice-President, CMPS: Gary Bennett
Editorial Director: Claudine O'Donnell
Acquisitions Editor: Matthew Christian
Marketing Manager: Claire Varley
Program Manager: Madhu Ranadive
Project Manager: Susan Johnson
Developmental Editor: Cheryl Finch
Production Services: Kailash Jadli, iEnergizer Aptara®, Inc.
Permissions Project Manager: Kathryn O'Handley
Photo Permissions Research: Nazveena Begum Syed, Lumina Datamatics Ltd.
Text Permissions Research: Anjana Ragavendran, Lumina Datamatics Ltd.
Cover Designer: iEnergizer Aptara®, Inc.
Cover Image: Vetre/Shutterstock

Credits and acknowledgments for material borrowed from other sources and reproduced, with permission, in this textbook appear on the appropriate page within the text.

This edition is authorized for sale only in Canada.

If you purchased this book outside the United States or Canada, you should be aware that it has been imported without the approval of the publisher or the author.

Copyright © 2016 Pearson Canada Inc. All rights reserved. Manufactured in the United States of America. This publication is protected by copyright and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. To obtain permission(s) to use material from this work, please submit a written request to Pearson Canada Inc., Permissions Department, 26 Prince Andrew Place, Don Mills, Ontario, M3C 2T8, or fax your request to 416-447-3126, or submit a request to Permissions Requests at www.pearsoncanada.ca.

10 9 8 7 6 5 4 3 2 1 [EB]

Library and Archives Canada Cataloguing in Publication

Poole, Gary, 1950–, author

The psychology of health and health care : a Canadian perspective /
Gary Poole (University of British Columbia), Deborah Hunt Matheson (Vancouver
Island University), David N. Cox (Simon Fraser University).—Fifth edition.

Includes bibliographical references and index.

ISBN 978-0-13-309827-3 (pbk.)

1. Medicine and psychology—Textbooks. 2. Medical care—Psychological
aspects—Textbooks. I. Matheson, Deborah Hunt, 1966–, author II. Cox,
David Neil, 1947–, author III. Title.

R726.7.P66 2015

610.1'9

C2014-908508-7

PEARSON

ISBN 13: 978-0-13-309827-3

For our families:

Marsha, Colleen, and Graeme Poole

Wyatt Matheson

Susan, Kelsi, Kieran, and Dylan Cox

Brief Contents

Preface x

Chapter 1 Welcome to Health Psychology 1

Part 1 The Connections between Our Physical and Psychological Worlds

Chapter 2 Stress and Coping 25

Chapter 3 Psychoneuroimmunology 51

Part 2 The Psychology of Wellness and Illness

Chapter 4 Health Communication 76

Chapter 5 Health and Physical Activity 106

Chapter 6 Health-Compromising Behaviours 135

Chapter 7 Chronic and Life-Threatening Illnesses 176

Chapter 8 Pain 206

Chapter 9 The World of Health Care: Places, Procedures, and People 241

Part 3 Bigger Pictures: The Health of Populations

Chapter 10 From One to Many: Health on a Large Scale 279

Chapter 11 Health Promotion 302

Focused Modules FM-1

For Your Reference: Systems of the Body 333

Index 395

Contents

Preface x

Acknowledgements xiii

About the Authors xiv

1 Welcome to Health Psychology 1

What Is Health Psychology? 2

The Roots and Branches of Health Psychology 3

The Early Stages of Health Psychology: Applying the Principles of Behaviourism to Health 3

Health Psychology Expands to Include Cognition and Personality Factors 5

More Attention Is Paid to the Ways People Cope 6

The Introduction of Psychoneuroimmunology: Finding Links between Psychological and Biological Processes 6
Summary 7

The Birth of Health Psychology 7

Changing Profiles of Illness and Health in Canada 7

Multiple Perspectives Are Needed to Understand Health and Health Statistics 9

Health Psychology Today 10

The Biopsychosocial Approach to Health 10

Prominent Theories in Health Psychology 12

Working in Health Psychology 22

Clinical and Counselling Psychologists Working in Health Psychology 22

Research Careers in Health Psychology 23

Chapter Summary 23

Part 1 The Connections between Our Physical and Psychological Worlds

2 Stress and Coping 25

Issues of Definition 26

The Physiology of Stress 30

The General Adaptation Syndrome 32

Cognitive Transactional Models 34

The Role of Personality in Stress and Coping 37

Coping 39

East and West: Now the Twain Shall Meet 43

Relaxation 45

Behaviour Therapy and Cognitive Therapy 46

The Relaxation Responses: A Personal Guide 48

Chapter Summary 50

3 Psychoneuroimmunology 51

The Importance of PNI to Health

Psychology 52

How Immune-System Functioning Is Measured in PNI Research 53

Counting Cells to Measure Immunocompetence 53

Functional Tests of Immunocompetence: Measuring Cells in Action 54

Methodological Issues in the Measurement of Immune-System Function 55

Research in PNI: Providing Evidence for a Biological Link between Psychology and Health 57

The Effect of Stress on Immune Functioning 58

The Effect of Depression on Immune Functioning 64

Biological Mechanisms to Explain Why Psychological States Affect the Immune System 73

Chapter Summary 75

Part 2 The Psychology of Wellness and Illness

4 Health Communication 76

Physician-Patient Interaction 78

Basic Models of Physician-Patient Interaction 78

Physician-Patient Communication 82

Adhering to Medical Advice 92

Assessing Adherence 92

Frequency and Cost of Non-Adherence 93

What Factors Predict Adherence? 94

Improving Patient Adherence 96

Dr. Google: Health and the Internet 100

Health-Related Resources Available on the Internet 100

Assessing the Quality of Health Information on the Internet 102

Implications for Patient-Physician Relationships 103

Chapter Summary 105

5 Health and Physical Activity 106

The Nature of Physical Activity 108

Physical Activity and the Five Components of Health 112

Levels of Physical Activity 112

The Five Forms of Physical Activity 114

Psychological Benefits of Physical Activity 115

Physical Activity and Sense of Self 116

Physical Activity and Cognitive Functioning 119

Physical Activity and Mood 120

Physical Benefits of Physical Activity 122

Adherence to Physical Activity 124

Psychological Factors Affecting Performance in Exercise and Sport 126

Relaxation 128

Self-Talk 128

Imagery 129

Goal Setting 130

Mindfulness and Acceptance-Based Interventions 131

Physical Activity and Injury 132

Chapter Summary 134

6 Health-Compromising Behaviours 135

Substance Abuse 136

Smoking 136

Alcohol Use 147

Illicit Drug Use 153

Unsafe Sexual Behaviours 157

Obesity 158

Biological Factors That Contribute to Obesity 162

Psychosocial Factors That Contribute to Obesity 163

Sociocultural Factors That Contribute to Obesity 163

Prevention and Treatment of Obesity 164

Eating disorders 168

Biological, Cultural, and Psychological Contributors to Eating Disorders 170

Treatment for Eating Disorders 171

Chapter Summary 174

7 Chronic and Life-Threatening Illnesses 176

Cancer 178

Some Statistics 178

Illness Burden for Cancer 179

Physical Problems 179

Psychological Distress 180

Cancer Treatment 182

Helping People Cope with Cancer 186

Diabetes 189

Diabetes and Psychological Distress 190

Helping People Cope with Diabetes 192

Diseases of the Cardiovascular System 192

Cardiovascular Disease and Psychological Distress 193

Helping People Cope with Cardiovascular Disease 194

HIV and AIDS 195

HIV/AIDS and Psychological Distress 197

Helping People Cope with HIV and AIDS 197

A Final Word about Our Discussion of HIV and AIDS 198

Other Chronic Conditions 199

Quality of Life 199

The Tradeoff between Duration and Quality of Life 200

Quality of Life as a Subjective Phenomenon 201

Death and Dying 202

Patients' Reactions to Death 202

Bereavement and Grief 204

Chapter Summary 204

8 Pain 206

The Significance of Pain 208

Pain Perception 209

Theories of Pain 210

Gate Control Theory 210

Neuromatrix Theory 211

Neurochemical Basis of Pain and Pain Inhibition 211

Acute versus Chronic Pain 213

Psychosocial Factors and Pain 216

Gender Differences 216

Cultural Differences 219

The Measurement of Pain 220

Psychophysiological Measures 220

Behavioural Assessment 220

Self-Reports of Pain 221

Assessing Pain in Infants and Children 225

Assessing Pain in Older Adults 226

Pain Control Techniques 227

Pharmacological Control of Pain 227

Surgical Control of Pain 228

Transcutaneous Electrical Nerve Stimulation 229

Acupuncture 230

Physical Therapy 230

Massage 231
Relaxation 232
Distraction 233
Hypnosis 236
Multidisciplinary Pain Management Programs 238
Chapter Summary 240

9 The World of Health Care: Places, Procedures, and People 241

Seeking Medical Care 242
Perceiving Symptoms 242
Interpreting Symptoms 244
Seeking Help from the Health Care System 245
Delaying Medical Care 245
The Hospital 247
A Hospital Patient's Loss of Control 248
Patient-Centred Care: An Ideal in the Hospital 253
Spending Time in Hospital 253
The Emergency Department 253
Recovering from Surgery 254
The Intensive Care Unit 255
Discharge 259
Palliative Care 260
The Psychological Impact of Medical Procedures 261
The Psychology of Colonoscopy 261
The Psychology of Mammography 262
People 263
Physicians 264
Physicians' Emotional Involvement in Their Work 264
Physicians and Stress 265
Gender Issues in Medical Practice 268
Nurses 270
The Nature of Modern Nursing 270
Stress in Nursing 272
Others 274
Physiotherapists 274
Chapter Summary 277

Part 3 Bigger Pictures: The Health of Populations

10 From One to Many: Health on a Large Scale 279

The Social Ecological Model: Building on the Biopsychosocial Approach to Understand Big Pictures 280

Tracking Health and Illness at the Population Level 282

Social Determinants of Health in Canada 283

The Vulnerability of Populations 284

Culture and Health 287

What Is Culture? 288

How Culture Affects Health 289

What Is Required to Ensure the Best Possible Health for All, Regardless of Culture? 290

The Health of Canada's Aboriginal Peoples 291

Who Are Canada's Aboriginal Peoples? 291

Health Challenges 292

Addressing the Challenges 293

Harm Reduction as a Treating and Preventing Illness at the Population Level 294

Reducing the Harm of Injection Drug Use 295

The Psychology of Vaccination 296

Health and the Built Environment 298

Chapter Summary 300

11 Health Promotion 302

Canada as a Worldwide Leader in Health Promotion 304

The Goals of Health Promotion in Canada 306

Health Promotion Mechanisms 307

Using Psychological Principles to Promote Healthy Living 310

Prominent Theories in Health Psychology Applied to Health Promotion 310

The Social Psychology of Health Promotion 311

Look Before You Leap: The Precede-Proceed Model 317

Assessing the Effectiveness of Health Promotion Programs 319

A Final Word about Health Promotion 321

Chapter Summary 321

Focused Modules FM-1

Glossary 323

References 333

Index 395

Preface

With each new edition of *The Psychology of Health and Health Care: A Canadian Perspective*, we as authors learn more and more about this fascinating field of health psychology. In writing this fifth edition, we have reinforced our belief that the field continues to mature and expand, learning from other branches of psychology and from other disciplines.

As learners and as authors, we continue to feel very fortunate to be able to work in a country in which issues, opinions, and data are so very accessible. In the late 1990s, when we first began conceptualizing this book, we were convinced that the topics of health psychology manifest themselves in unique ways in Canada. After writing this fifth edition, we hold fast to that conviction. While many psychological theories developed in the United States and elsewhere apply well internationally, it is still the case that, when it comes to health and health care, our geography, demography, history, and health care system make Canadians unique, even in the face of significant, though debated, reforms to the American health care system. Our experience in writing this edition continues to confirm that Canadians are very active in research that goes beyond descriptions of our health to explore the factors affecting it. Again, you will find hundreds of new references as this research is discussed throughout the book.

HOW BEST TO USE THIS BOOK

The fifth edition of *The Psychology of Health and Health Care: A Canadian Perspective* is organized into major parts and chapters. The division of topics into major parts is a new addition to the book. You will see that we are continuing to place the work of health psychology in larger disciplinary and societal contexts, especially in Part 3 entitled Bigger Pictures: The Health of Populations. Chapters continue to be the traditionally used organizational elements. This book presents topics that are commonly found in most health psychology textbooks. Stress and coping, health communication, pain, and chronic and life-threatening illnesses are examples of such topics. However, this edition also contains chapters on some topics that are often covered in less detail by other texts. Examples include psychoneuroimmunology, health promotion, and health and physical activity.

Instructors are invited to use the book's chapters as they see fit for their educational context. For example, nursing and medical students may want to focus more on chapters such as Psychoneuroimmunology, Health Communication, The World of Health Care, Pain, and Chronic and Life-Threatening Illnesses.

Health psychology is essentially an applied discipline, and each chapter of our book opens with a vignette intended to provide students with a realistic context for what they are about to read. In this way, we begin each chapter with an applied focus. Students will also find case studies throughout the book. In addition to the analysis we provide, students can discuss these case studies in lectures and seminars.

WHAT'S NEW IN THE FIFTH EDITION

This fifth edition includes new features that highlight the key concepts for each chapter. We have rethought the structure of our "advance organizers" that help students start thinking about a chapter before delving into it. Correspondingly, we have restructured

our chapter reviews to enhance students' recall and help them think about the material in deeper rather than surface ways.

The most noticeable expansion found in this fifth edition is Part 3: The Bigger Picture: The Health of Populations. The material in this section reflects health psychologists' growing appreciation for the interdisciplinary nature of their work—that no challenge in health can be understood solely from one perspective. The section also acknowledges that, while working with individuals is still a fundamental reality in health care, health is more dramatically improved by focusing on populations. No single health care practitioner can have as much impact as can one well-implemented and thoughtful policy on clear drinking water.

SUPPLEMENTS

The following instructor supplements are available for downloading from a password-protected section of Pearson Canada's online catalogue. Navigate to your book's catalogue page to view a list of those supplements that are available. See your local Pearson sales representative for details and access.

Test Item File Available in Microsoft Word, the test bank includes a wide variety of questions that will help you create meaningful student tests and assessments.

PowerPoints The PowerPoint presentations highlight the key concepts in each chapter and will enhance classroom lectures and discussion.

CourseSmart for Instructors CourseSmart goes beyond traditional expectations—providing instant, online access to the textbooks and course materials you need at a lower cost for students. And even as students save money, you can save time and hassle with a digital eTextbook that allows you to search for the most relevant content at the very moment you need it. Whether it's evaluating textbooks or creating lecture notes to help students with difficult concepts, CourseSmart can make life a little easier. See how when you visit <http://instructors.coursesmart.com>.

Learning Solutions Managers Pearson's Learning Solutions Managers work with faculty and campus course designers to ensure that Pearson technology products, assessment tools, and online course materials are tailored to meet your specific needs. This highly qualified team is dedicated to helping schools take full advantage of a wide range of educational resources, by assisting in the integration of a variety of instructional materials and media formats. Your local Pearson Education sales representative can provide you with more details on this service program.

Pearson Custom Library For enrollments of at least 25 students, you can create your own textbook by choosing the chapters that best suit your own course needs. To begin building your custom text, visit www.pearsoncustomlibrary.com. You may also work with a dedicated Pearson Custom editor to create your ideal text—publishing your own original content or mixing and matching Pearson content. Contact your local Pearson Representative to get started.

peerScholar Firmly grounded in published research, peerScholar is a powerful online pedagogical tool that helps develop students' critical and creative thinking skills through creation, evaluation, and reflection. Working in stages, students begin by submitting

written assignments. peerScholar then circulates their work for others to review, a process that can be anonymous or not, depending on instructors' preferences. Students immediately receive peer feedback and evaluations, reinforcing their learning and driving development of higher-order thinking skills. Students can then re-submit revised work, again depending on instructors' preferences.

Contact your Pearson representative to learn more about peerScholar and the research behind it.

Acknowledgements

We are very grateful for the help we received from Sean Benay, who provided a very careful reading of our first edition, and from Caroline Murphy of the University of British Columbia, who pointed us in the right direction regarding the content for the focused module on Health and the Internet.

We also continue to be very grateful to Peter Gibson for sharing and updating his remarkable story with us in chapter 5. For their feedback on the first edition, we would also like to thank Lois Hunt and Dennis Krebs of Simon Fraser University, Tina Niwinska and Jody L. Bain of the University of Victoria, Kathleen A. Martin Ginis of McMaster University, Dean Tripp of Queen's University, and Angie MacKewn of the University of New Brunswick.

Pearson Canada and the authors would like to thank the following individuals for their reviews during the development phase of this title: Judith Andersen, University of Toronto Mississauga; Theresa Bianco, Concordia University; Yves Bureau, Western University; Nukte Edguer, Brandon University; Kyoko Hattori, Carleton University; Cameron Muir, Brock University; and Randall Tonks, Camosun College.

Gary Poole
Deborah Hunt Matheson
David N. Cox

About the Authors

Gary Poole is a Professor in the School of Population and Public Health in the University of British Columbia's Faculty of Medicine. He received his Ph.D. in Psychology from Simon Fraser University. He has won numerous awards for his teaching, and he is Past President of the International Society for the Scholarship of Teaching and Learning. In addition to his publications in the area of health psychology, he is the co-author of "Effective Teaching with Technology in Higher Education" (Bates, A.W., & Poole, G. (2003). *Effective teaching with technology in higher education: Foundations for Success*. San Francisco, CA: Jossey-Bass.)

Deborah Hunt Matheson is Chair of the Department of Psychology at Vancouver Island University. She received her B.A. (Hons) from Simon Fraser University and did her M.A. and Ph.D. graduate work at the University of Victoria. Her research interests are in health psychology, especially on factors that motivate people to commit to an exercise program. In addition, she is interested in communication in the medical setting. Her research has been published in journals such as *Behavioral Medicine*; the *British Journal of Health Psychology*; the *Canadian Journal of Communication*; the *Journal of Nonverbal Behavior*; the *Journal of Sport and Exercise Psychology*; *Measurement in Physical Education and Exercise Science*; *Psychology and Health*; *Psychology, Health and Medicine*; and the *Psychology of Sport and Exercise*.

David Cox is currently the Director of Clinical Training in the Department of Psychology at Simon Fraser University. He received his M.A. and Ph.D. from the University of British Columbia in Clinical Psychology. His research and applied interests currently focus on health psychology, human performance, and sport psychology. He is currently the Chair of the Sport Medicine Council of British Columbia. His most recent research has been published in journals such as the *Journal of Clinical and Experimental Neuropsychology*, the *International Journal of Sports Physiology and Performance*, the *International Journal of Mental Health and Addictions*, the *Journal of Pediatric Psychology*, and the *Journal of Adolescent Health*.