



# AN INTRODUCTION TO HEALTH PSYCHOLOGY

*Third Edition*

ANDREW BAUM

ROBERT J. GACHEL

DAVID S. KRANTZ

# *An Introduction to Health Psychology*

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THIRD EDITION

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to Health Psychology*

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*To Jesse Slater Sachs, in loving memory.  
She endures in many incarnations.*

—AB

*To my deceased father, John P. Gatchel, who served as an  
important role model during my formative years and who  
provided me with intelligent guidance through the years.*

—RJG

*To my wife Marsha and children Michael and Della.*

—DSK

# Foreword

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When the first edition of *An Introduction to Health Psychology* was being written almost fifteen years ago, the area of *health psychology* was small, relatively new, and not particularly well defined. The authors of the first edition, Robert J. Gatchel and Andrew Baum, not only met the challenge of relating psychological processes to health and illness in a coherent, comprehensible, and scholarly manner, but they were also instrumental in structuring a major new subdiscipline within psychology. Today health psychology is recognized as an important subdiscipline of psychology throughout most of the computer-literate world. Within the United States, the journal *Health Psychology*, with approximately 9,000 subscribers, is the third most subscribed primary journal of the American Psychological Association. Its editor, David S. Krantz, is recognized as an eminent scientist and scholar of considerable breadth. Not surprisingly, as an author of both the second and third editions of this text, he has made major conceptual contributions.

The true context of health psychology, as depicted by the three authors of the present text, has to be understood not only as a subdiscipline of psychology but also as an integral component of *behavioral medicine*. Behavioral medicine is the interdisciplinary field concerned with the development and integration of biomedical, behavioral, psychosocial, and sociocultural knowledge and techniques relevant to understanding health and illness. It is also concerned with the application of this knowledge and these techniques to disease prevention, diagnosis, treatment, and health promotion. Thus, the domains of behavioral medicine include not only academic disciplines such as anthropology, biochemistry, genetics, immunology, molecular biology, neuroscience, psychology, and sociology but also such healing professions as medicine, dentistry, and nursing. Within the field of behavioral medicine, health psychologists have played a large and important role, because of the analytic tools they possess and the vigor with which they have successfully interacted with other academics and professionals to address important aspects of health and illness. The three authors of the present volume have been preeminent in both health



psychology and behavioral medicine and are thus well qualified to describe the full richness of the tapestry that comprises contemporary health psychology.

A particular strength of the first two editions was the emphasis placed on an implicit biopsychosocial model of health and illness. As in the present edition the earlier versions provided scholarly coverage of such topics as stress, coping, psychosocial risk, and cognitive-behavioral treatment of physical disorders as well as biopsychosocial approaches to the pathogenesis and management of AIDS, cancer, coronary heart disease, pain, and other afflictions. In this edition these topics still receive extensive coverage, but are augmented by important discussions of dispositions that appear to affect health and health behaviors, assessment of quality of life in medical patients, assessment of pain behaviors, psychoneuroimmunology, psychosocial aspects of organ transplantation, and the development of health promotion programs. The discussions are concise, insightful, and cogent.

In conclusion, the present text provides a scholarly, comprehensive, readable introduction to health psychology. The authors have done an outstanding job of organizing, codifying, synthesizing, and explicating the key concepts relating relevant behavioral, biomedical, psychosocial, and sociocultural processes to health and illness. It is apparent that the authors are not only academic scholars who are able to translate complex concepts into readily comprehensible formulations, but also distinguished working scientists with sufficient perspective to grasp the full implications of these formulations for research, practice, and the further development of health psychology.

Neil Schneiderman

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# Preface

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Twenty years ago, health psychology was a new, promising field of inquiry. Today, it has grown dramatically, fulfilling some of its early promise and opening creative new lines of investigation that will fuel its further growth. In this short time, we have learned a great deal. We have learned that behavior is a basic and influential component of health and that it can make disease more or less likely. Diet and drug use, exercise, stress, and other behaviors have demonstrable effects on a range of physiological systems and health outcomes. Disease processes, such as those involved in cardiovascular disorders and hypertension, are clearly tied to behavior and to emotional experiences. How people behave when they are ill or whether they seek medical attention for symptoms also determines the eventual costs of a disease or the severity of its impact. From basic research and intervention to contributions to public policy, health psychology has become an important discipline within and outside the field of psychology.

Health psychology is an exciting area of study, in part because it considers so many levels of influence and because the *relationships* it studies are inherently interesting and important. It shares the excitement of basic discoveries with more basic social, cognitive, and physiological fields of psychology. Effective applications of research to problems of health and well-being, including successful intervention with patients, are also thrilling and rewarding aspects of this field. Health psychology is exciting because it deals with very important outcomes, literally with life and death, and because it has uniquely important contributions to make to our understanding of behavior, of health, and of disease. It has become one of the most active areas within psychology and has clearly defined roles for psychologists in the health care arena. At a time when opportunities seem to be shrinking all around us, the opportunities in health psychology continue to grow. The vibrancy of our field, its breadth, rigor, and importance, are among the reasons for its dramatic growth and continued success.

Psychologists have always been concerned with issues of illness and health. Historically, they generally limited themselves to mental health settings

and issues such as psychotherapy, mental retardation, and schizophrenia. This focus has changed during the past twenty years, with an increased involvement in all areas of health and illness, not just mental health. Integrating research and theory from clinical psychology, social psychology, biopsychology, experimental psychology, and the like, health psychology has expanded and broadened its scope. This text provides a comprehensive review of this work and of the many medically related topics and areas that are being changed by the health psychology specialty.

We each have taught courses in behavioral medicine and health psychology over a period of many years to a varied audience—psychology undergraduate and graduate students, medical and dental students, nurses, and other health care professionals and trainees. These experiences have provided the opportunity to explore the best methods for presenting the field to a diverse audience. This book is intended to provide a broad introduction to health psychology and to the interface of psychology and the medical world. We have provided a balanced presentation of both the broad issues in the field as well as of specific content topics that are especially relevant today for better understanding health and illness. We have been able to draw on feedback from instructors who have used the previous two editions of the text to better crystallize the information and to more specifically tailor it to the needs of students, instructors, and health professionals in the field.

The reader will be exposed to important psychological theories, concepts, and assessment/treatment methods of psychology as they apply to the area of health and illness. In presenting this material, we were aware that we would be addressing readers who differ in backgrounds and expertise in psychology as well as in terms of basic psychobiological principles and professional service delivery experience. As a consequence, we have been careful to clearly describe important concepts and terms in a manner that does not require a strong background in these areas. We also provide basic material where it is needed. We have tried to use clear, understandable language without introducing complicated jargon or, conversely, oversimplifying basic concepts and issues. It is our firm belief that our field must integrate physiological, psychological, and social aspects of behavior with state-of-the-art knowledge of biology and medicine. Consequently, we have written this book to consciously integrate medicine and these many levels of analysis in an accessible and understandable manner.

We have been impressed with the rapid advancement of this field since the completion of the second edition of this book. Accordingly, this new edition features updated discussions of material that was reviewed in the first editions, as well as expanded or new coverage of the central issues in health psychology. In particular, coverage of cancer-related issues including prevention and assessment and of health-related behaviors such as exercise, diet, and alcohol use has been expanded. Rapidly growing subspecialties, such as psychoneuroimmunology, are covered in detail. In addition, we describe differences between traditional and more innovative approaches to treatment and discuss the opportunities for health psychology associated with our rapidly changing health care system.

The organization of the text is similar to that of the second edition. The reader is first introduced to the important concepts and issues in the field of

health psychology. After an introduction and historical overview of the field in Chapter 1, we provide a summary of physiological bases of behavior and health in Chapter 2. A “short course” in basic human physiological factors and mechanisms serves as a foundation for concepts and phenomena discussed in later chapters. We then discuss basic concepts and behaviors that span the entire field of health psychology: stress (Chapter 3) and control and learned helplessness (Chapter 4).

Starting in Chapter 5, which deals with cardiovascular disorders, we turn to more specific areas within the field of health psychology. Chapter 6 considers psychological aspects of immunoregulation, cancer, and AIDS. The prevalence and significance of psychophysiological disorders are discussed in Chapter 7, followed by coverage of the impact of hospitalization and patient behavior on health and illness in Chapter 8. A review of psychological assessment techniques in medical settings is presented in Chapter 9. This review is provided not only for those with clinical interests but also as an introduction for nonclinicians to procedures they are likely to encounter in their research and training activities. Chapter 10 reviews the various cognitive-behavioral treatment procedures that have been used effectively with problem behaviors often seen in medical settings. Pain and its treatment, which account for over 80 percent of all physician visits, are discussed in Chapter 11. In Chapter 12, we discuss three common appetitive problem behaviors that have significant health consequences—obesity, problem drinking/alcoholism, and smoking. We have selected these topics as vivid examples of how comprehensive psychological approaches can be applied to help us better understand the biological and psychosocial factors involved in these problem behaviors and, consequently, help to treat the behaviors more effectively. The text concludes with discussion of health psychology contributions to the promotion of health and prevention of disease.

We have diverse clinical and research interests and experiences in the field of health psychology, and we were trained in different subspecialties of psychology. None of us was originally trained as a health psychologist. No courses in health psychology even existed when we were in school! However, our backgrounds in social, clinical, and environmental psychology as well as in psychophysiology gave us a broad foundation for health psychology. This diversity greatly helped us provide a broad spectrum of expertise in the major topic areas covered. We all embrace a biopsychosocial orientation, a common thread throughout the fabric of this text. A concerted effort was made to provide an equitable balance among review summaries, major theories, hallmark research studies, and important clinical applications for each content area presented. Our intent was to foster a strong foundation and better appreciation of how psychology successfully interacts with medical illness and health issues.

No text of this type is possible without the aid of many dedicated people. We are especially grateful to a number of colleagues who read drafts of the earlier editions and provided helpful critiques and suggestions about chapters in the new edition. Extensive revisions were made as a result of their expert comments. We would particularly like to thank Tonya Y. Schooler for her helpful comments on several chapters. We thank the reviewers of this edition for their thoughtful comments and suggestions: Christian S. Crandall, University of

Florida; Lynn A. Durel, University of Miami; Dennis E. Elsenrath, University of Wisconsin, Stevens Point; George B. Walz, Indiana University of Pennsylvania; Carol S. Weisse, Union College; and Kathleen D. Zylan, Lynchburg College. We would also like to thank and acknowledge the help and support we received from the staff at McGraw-Hill, particularly from Brian McKean and Susan Elia. Their persistence and expertise were greatly appreciated. Finally, special thanks are due to Michele Hayward and Susan Hagan for their tireless help in preparing the book and to Tina Racan, Laurie Hall, Shiela McFeeley, Carol Gentry, and Nicole Lundgren for their valuable assistance in its preparation.

Andrew Baum  
Robert J. Gatchel  
David S. Krantz

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