

Series Foreword

Mental health practitioners working in medicine represent the vanguard of psychological practice. As scientific discovery and advancement in medicine has rapidly evolved in recent decades, it has been a challenge for clinical health psychology practice to keep pace.

In a fast-changing field, and with a paucity of practice-based research, classroom models of health psychology practice often do not translate well to clinical care. All too often, health psychologists work in silos, with little appreciation of how advancement in one area might inform another. The goal of the Clinical Health Psychology Series is to change these trends and provide a comprehensive yet concise overview of the essential elements of clinical practice in specific areas of health care. The future of 21st-century health psychology depends on the ability of new practitioners to be innovative and to generalize their knowledge across domains. To this end, the series will focus on a variety of topics and provide both a foundation as well as specific clinical examples for mental health professionals who are new to the field.

Working with Susan Reynolds, senior acquisitions editor at the American Psychological Association (APA Books), I am proud to have had an opportunity to edit this book series. We have chosen authors who are recognized experts in the field and who are rethinking the practice of health psychology to be aligned with modern drivers of health care such as population health, cost of care, quality of care, and customer experience.

Dr. Mathew Burg's book *Psychological Treatment of Cardiac Patients* draws on his vast experience as one of the pioneers in the field of cardiac psychology. His pragmatic approach to psychological assessment and intervention will be invaluable to mental health practitioners, helping them negotiate the challenges inherent in treating a patient population with considerable variation in the manifestation of their disease. This book provides an in-depth review of the anatomy, physiology, and medical approaches to diagnosing and treating heart disease. Dr. Burg tackles topics that have often received little attention in this field, such as sleep dysregulation, sexual dysfunction, and end-of-life care. *Psychological Treatment of Cardiac Patients* will also be informative for students seeking to practice in clinical health psychology, as well as for experienced therapists seeking greater understanding of their clientele who have heart disease.

It is rare to find books from experienced health psychology researchers aimed at the clinical audience. Yet it is only through this type of cross-pollination that the field of cardiac psychology can undergo the reengineering necessary to drive the science forward and speed the dissemination of evidence-based practices. Thus, I am tremendously indebted to Dr. Burg for his commitment to the field and contribution of this important work.

—Ellen A. Dornelas, PhD
Series Editor

Introduction

Coronary heart disease (CHD), which broadly comprises the full range of disease that strikes the heart, is the leading cause of death and disability in the United States. According to Mozaffarian et al. (2016), over 28 million U.S. adults are diagnosed with heart disease, and each year over half a million people have a first heart attack, with another 300,000 experiencing a second such event. Each year approximately 610,000 people in the United States die of heart disease, representing a quarter of all deaths annually. This disease is more likely to strike men than women, and the risk is considerably higher for non-Hispanic Black males and Black females than for their White counterparts. The last decade saw an almost 30% decline in death attributable to CHD, but in 2013 CHD still accounted for almost one third of all deaths, making it the number one killer. CHD is typically thought of as a disease of aging, yet over 10% of individuals

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Psychological Treatment of Cardiac Patients, by M. M. Burg

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between the ages of 45 and 65 have heart disease, and approximately one quarter of Americans who die of this disease are less than 65 years of age. Furthermore, over a third of these deaths occur before the age of 75, an age younger than the average life expectancy in the United States today. Each year approximately 360,000 Americans experience out-of-hospital catastrophic cardiac arrhythmic events or cardiac arrest, and little more than 10% of these individuals survive to hospital discharge.

There are more than 17 million individuals living in the United States with chronic CHD and many million more with hypertension, cerebrovascular disease (stroke), and peripheral vascular disease. Heart failure (HF) is another clinical presentation of CHD and occurs when the heart muscle does not pump blood as well as it should or once did because the muscle is too weak or stiff to fill and pump efficiently. In 2013, one in nine death certificates in the United States included HF. The number of any-mention deaths attributable to HF has not appreciably changed over the past 2 decades (approximately 285,000 annually). In addition, hospital discharges for HF have remained stable, with first-listed discharges of over one million annually (statistics reported by Mozaffarian et al., 2016).

It should be apparent that CHD has profound costs to the public health, and this remains true despite the revolution in CHD-related care that has occurred over the past 2 decades. Approximately 40% of the chronic disease burden is attributed to lifestyle and mental health factors, indicating the profound potential for psychological and psychosocial interventions to reduce CHD incidence (Mozaffarian et al., 2016). Indeed, efforts to reduce the risk of first cardiac events—for example, through efforts such as smoking cessation and increased physical activity—have been part of the success that has been realized in recent years. In addition to the contributions that psychosocial and lifestyle factors have made to the onset of disease is the role these factors play for patients after a first cardiac event. For example, patients are faced with many lifestyle adjustments after a cardiac event, and many patients additionally experience a profound psychological disruption to their sense of personal integrity. There are stresses that can accompany the medical treatments needed for heart disease, some

more acute—such as angioplasty—and some lifelong—such as medication regimens. Although a period of psychological adjustment (e.g., feelings of anxiety and depression) after a heart attack can be expected, longer lasting and frank depression, whether at a level sufficient for diagnosis or a “subsyndromal” level, not only affects quality of life but also contributes to recurrent cardiac events and early mortality. Thus, the role of the psychologist can be important not only in the prevention of CHD but also in the treatment of the patient after a cardiac event.

This book is an introduction to and a primer for the clinical practice of cardiovascular behavioral medicine and behavioral cardiology and is appropriate for advanced students and mental health professionals who are new to this specialty. Throughout this book, clinical examples are used to illustrate the disease presentation, subsequent treatments, and the psychosocial issues that both contribute to heart disease and are sequelae to cardiac events.

The book is not intended as sufficient to inform practice in the cardiologic “space.” The psychologist without specific advanced training in this area can use this text to gain a basic understanding, but it is essential that he or she pursue advanced training before initiating practice in this area. Failure to do so may place the psychologist at risk of violating the Ethical Standards in the American Psychological Association (2017a) *Ethical Principles of Psychologists and Code of Conduct* concerning practice competence. This volume does not include an exhaustive review of all literature relevant to the field but instead provides an overview and introduction to this evolving area of clinical practice. Areas not discussed in greater detail include heart diseases that affect children and young adults and genetic-based diseases such as those involving conduction disorders. Nor is more detail provided about the emerging understanding of posttraumatic stress disorder as a factor influencing cardiac outcomes. However, this book does provide a foundation of knowledge and understanding for the pursuit of more detailed knowledge, understanding, and skill with proper supervision and guidance.

Part I of this book is devoted to a detailed overview of the heart—its structure and function, the processes involved in the regulation of the

heart and associated processes and organ systems, and the factors that contribute to heart disease onset and prognosis. In this overview, disease conditions that affect the heart are described, providing the health psychologist with the depth of knowledge requisite for interacting knowledgeably with cardiac patients and the full range of health care providers involved in their care. I devote particular emphasis to the processes by which CHD develops and cardiac events are triggered and to the pathways understood to link psychological factors to CHD. Whereas Chapter 1 is devoted to cardiac anatomy and function, Chapter 2 delves most specifically into disease etiology, while also providing a historical perspective on cardiovascular behavioral medicine and cardiac psychology. The etiological and sociocultural context serves to identify issues related to vulnerable subgroups. This section of the book culminates with Chapter 3, which provides an overview of the standard and emerging medical treatments that are available to patients, with a description of the various psychological issues these treatments may produce.

Part II focuses on psychological assessment and treatment of patients with CHD. Chapter 4 is devoted to depression, a condition that occurs for up to one quarter of patients after a cardiac event and that, if persistent, contributes to recurrent cardiac events and early mortality. I review the pathways thought to link depression to these events, as well as methods used to assess depression in this population and the clinical trials literature concerning depression treatments for patients with heart disease. I also review the current status of recommendations for addressing depression in patients with heart disease and the integration of depression care with overall cardiologic care.

Anxiety in patients with heart disease is the subject of Chapter 5. Like the chapter on depression, this chapter focuses on etiology, behavioral factors, pathways linking anxiety to cardiac-related outcomes, and methods used for assessment and treatment. The focus on assessment also includes assessment of anxiety for patients with specific cardiac conditions, particularly those whose condition requires treatment with an implantable cardioverter defibrillator. I discuss issues of comorbidity with depression, common for both cardiac patients and the general population,

as well as issues related to gender, such as the higher incidence of anxiety disorders in women.

Sleep and sleep dysregulation are common in cardiac patients and often part of the etiology underlying heart disease development and expression. In Chapter 6, I provide an overview of sleep, along with a review of sleep disorders and the role of sleep in heart disease. I also discuss methods used to assess sleep, including emerging wrist-worn technologies that assess sleep quality more objectively than is possible with self-report. In addition, I provide a more detailed description of standard sleep disorder treatment—for example, improving sleep hygiene and using cognitive behavioral therapy for insomnia. The chapter also includes a discussion of sleep apnea, which is particularly common among patients with HF.

Sexual functioning is often negatively affected by cardiac events, in large part due to the anxiety that accompanies return to previous activities and the side effects that accompany cardiac medications for some patients. Chapter 7 discusses methods used to assess sexual issues and functioning in cardiac patients, with a more focused discussion of specific assessment tools for men and women. I discuss approaches to treatment and the outstanding questions regarding best approaches, particularly for women with heart disease.

Chapter 8 focuses on social support and the effects of heart disease in the context of the family. I describe the different types of social support—structural, functional, and so forth—and the research linking social support to heart disease. I also discuss the research concerning social support interventions for cardiac patients and make recommendations for how the health psychologist practicing in the cardiology space might proceed.

Chapter 9 is devoted to end-of-life issues in cardiac care. This chapter, in particular, serves as a context for discussing HF, which represents the progression of heart disease to a terminal state. I discuss the treatment of HF through the use of devices—implanted defibrillators, ventricular assist devices—and the emergence of a palliative care model for the treatment of advanced disease and for addressing end-of-life issues.

Part III concludes the book with Chapter 10, which concerns the integration of psychological and medical aspects of care for patients with heart disease. Although this is an underlying theme for each of the chapters, the absence of a psychologist or other mental health provider from cardiologic care teams as a given throughout the United States remains a point of consternation and, in the view of this writer, an important obstacle to the reduction in heart disease incidence and the burden and suffering associated with heart disease for the patient and his or her family members. In this final chapter, I discuss the issues involved in this state of affairs and present ideas for addressing them.