How the Mind Hurts and Heals the Body

Oakley Ray
Vanderbilt University

The author reviews some of the social and behavioral factors acting on the brain that influence health, illness, and death. Supported with data from several areas of research, his proposal for understanding health and illness provides both the concepts and the mechanisms for studying and explaining mind–body relationships. The brain is the body's first line of defense against illness, and the mind is the emergent functioning of the brain. This mind–body approach incorporates ideas, belief systems, and hopes as well as biochemistry, physiology, and anatomy. Changing thoughts imply a changing brain and thus a changing biology and body. Belief systems provide a baseline for the functioning brain upon which other variables act and have their effects.

> The mind is its own place, and in itself
> Can make a Heav'n of Hell, a Hell of Heav'n.
> —John Milton, *Paradise Lost*

In 1948, the World Health Organization defined health as the presence of well-being—physical, mental, and social—not as the absence of disease. The American Psychological Association amended its bylaws in 2001 to recognize "promoting health" as one of its major missions (Thorn & Saab, 2001). In the past, the point of contact between psychology and health has sometimes been couched in economic terms: for instance, as in the title of one article, "The Impact of Psychological Interventions on Medical Cost Offset" (Chiles, Lambert, & Hatch, 1999; see also Cummings, 1999). The dollar savings are impressive—up to 20% in some situations—but the interventions are only rarely used (Sobel, 2000). Another focus has been on the contributions psychology can make to the prevention of substance abuse and other behavioral social issues such as child abuse (Carpenter, 2001; Ray & Ksir, 2004). These are important, logical extensions of mainstream psychology's skills and science and should certainly be encouraged.

Health care is changing, as anyone involved in the treatment of patients well knows (Grol, 2001; Shine, 2002). Newspapers report daily on HMOs, alternative medicine, health care costs, and many other issues. This article goes beyond the traditional psychology–health issues and the transient changes and topics discussed every day and provides evidence for a new perspective for understanding health and disease, life and death.

Robert Ader (as quoted in Cherry, 1980) has alluded to this new perspective on health in the following way: "There's been a huge transformation in the way we view the relationship between our mind and good health, our mind and disease. . . . In many ways, it's nothing short of a revolution" (pp. 94–96).

Table 1 summarizes several components of this transformation in health care and the new perspective. The middle column, labeled *Past*, has also been termed the biomechanical (or biomedical) model. The right-hand column is the way of the future—the underpinnings of health care for the next several decades. It has been called the biopsychosocial model. These concepts are part of this new perspective and are important to consider because "all healers have a set of beliefs to which they refer in their practice" (Prioreschi, 1991, p. 4).

This new approach to health says loudly and clearly that the causes, development, and outcomes of an illness are determined by the interaction of psychological, social, and cultural factors with biochemistry and physiology. Our physiology and biochemistry are not separate and distinct from the rest of our life and our experiences. The mind—a manifest functioning of the brain—and the other body systems interact in ways critical for health, illness, and well-being.

One report commented that " 'patient-centered care' is emerging as a key concept in modern medicine" and mentioned that patients who exerted "more control" and had "more expression of emotion" (Frishman, 1996, p. 1) during their visit to the doctor's office showed improved health and felt better. In other words, an active approach to our health increases our chances of getting better.

Chiong (2001) concluded that "the modes of explanation appropriate to illnesses like infections and poisons may not be applicable to more complex complaints, such as those involving interactions between mind, body and culture. . . . new modes of characterizing medical problems are needed" (p. 90).

A report by Pincus (2000) provides support for the patient-oriented focus of the biopsychosocial model summarized in Table 1, and Chiong's (2001) conclusion provides a possible basis for the recent shift in the health care model away from the historically based biomedical model.

Editor's note. Robert M. Kaplan served as action editor for this article.

Author's note. Oakley Ray, Departments of Psychology, Psychiatry, and Pharmacology, Vanderbilt University.

Many thanks to Bruce Overmier for suggesting I write this article and to Floyd Bloom for critiquing an earlier version.

Correspondence concerning this article should be addressed to Oakley Ray, 2014 Broadway, Suite 372, Nashville, TN 37203. E-mail: oray@cinp.org

Copyright 2004 by the American Psychological Association, Inc. 0003-066X/04/$12.00
Vol. 59, No. 1, 29–40 DOI: 10.1037/0003-066X.59.1.29