



*A new model for health promotion focuses on a true understanding of health and healing, seeking optimal wellness by incorporating all dimensions of the human experience.*

| By Jon Robison, PhD, MS

# Toward A New Science

## **The Way We Were**

Traditionally, worksite health promotion efforts have focused primarily on attempting to control and/or eliminate risk factors for disease. Health professionals identify unhealthy habits and try to motivate employees to replace these habits with healthier ones. Employees are encouraged to join behavior change programs that reward them for changing their behaviors, and they are told they will decrease their chances of contracting certain diseases and dying prematurely if they do so.

The science behind this approach to health promotion is the “biomedical model” of health and disease that has its roots in the Scientific Revolution of the 17<sup>th</sup> century. As with all of western science, the biomedical model is based on classical Newtonian Physics, which portrays the universe and everything in the universe (living and nonliving) as machines that can be understood only by reducing them to their smallest component parts.

According to this worldview, there are actually two separate universes, one composed of all those things that can be measured and quantified and one made up of those things that cannot. Only phenomena that are quantifiable and measurable are seen as valid and worthy of scientific study.

Within this framework, it is the role of the scientist to disassemble natural phenomenon into their smallest components (reductionism), analyze them, and put them back together, with the eventual goal of being able to predict and ultimately control them. In fact, complete control of nature is seen as the underlying purpose of science as made clear by Sir Francis Bacon, a major architect of the 17<sup>th</sup> century worldview, when he said:

*The purpose of science is to torture nature's secrets from her so she can be forced out of her natural state and squeezed and molded.<sup>1</sup>*

This mechanistic, reductionist, control-oriented view of reality remains the cornerstone of current approaches to scientific medicine and also provides the foundation for all human systems in contemporary society (legal, politics, economics, education, etc.).

## **Traditional Health Promotion: Disease Focus, Fear, and Behavioral Control**

Given the legacy of this 17<sup>th</sup> century worldview, it is not at all surprising that traditional approaches to promoting health have conceptualized the human body as a sophisticated machine, disease and behavioral struggles as malfunctions of the machine, and the health professional as the repairperson called in to *fix* the machine. (This should really be *repairman*, as only males were permitted to be healers in the 17<sup>th</sup> century. Women who claimed to be healers were routinely labeled as witches and burned at the stake).

Because only things that are measurable and quantifiable count, the focus is overwhelmingly on biomedical risk factors for disease such as blood pressure, cholesterol, weight, and/or measurable behaviors such as exercise, nutrition, and smoking. Just as with any other natural phenomenon, the belief is that by addressing these measurable factors, a person's health status can be objectively determined and the course of future health can be accurately predicted and eventually controlled. Despite some recent lip service to mind-body concerns, traditional health promotion programs have placed considerably less emphasis on more intangible and less easily measured issues such as feelings, emotions, relationships, and spirituality.

Traditional health promotion has generally assumed that without proper guidance, people will naturally gravitate toward unhealthy behaviors. Therefore, the role of the health professional has been to be the expert who polices peoples' behaviors and finds ways to *get them to change* for their own good. Much as the 17<sup>th</sup> century scientist yearned to control and dominate nature, so students in health education are taught in a widely used and highly regarded textbook:

*As Science and Technology advance, the least conquered force of nature remains the human being and its actions.*<sup>2</sup>

Given this foundation, it is perhaps not surprising that health promotion has largely focused on the use of fear tactics accompanied by incentives, competitions, and rewards to attempt to control peoples' behaviors. As the writers of the above mentioned textbook put it:

*The central concern of health promotion and health education is health behavior...how to bring about change...[and] developing techniques that change behavior.*<sup>2</sup>

This approach is certainly not meant to be mean-spirited. However, the legacy of the 17<sup>th</sup> century paradigm—the intent to control—is clearly evident, and is often stated quite frankly as when a leader in the field says about the use of incentives that they can:

*Jar the attention of someone in precontemplation and force them to at least think about improving their health.*<sup>3</sup>

### The New Sciences

As a result of profound scientific discoveries in the last century, this 400-year-old view of the universe and, along with it, our understanding of health and illness, has changed dramatically. Findings in physics, psychoneuroimmunology (PNI), chaos and complexity, and consciousness research are pointing humanity toward a more holistic view of the universe and drastically altering our conceptions about why people get ill and how they heal. *Figure 1* contrasts the new scientific assumptions with those of the 17<sup>th</sup> century worldview.

Thanks to the relatively new science of PNI we now understand that human beings are much more than just an assortment of mechanical parts forming a sophisticated machine. This research shows that unlike machines, humans have personalities, thoughts, feelings, and emotions, all of which can powerfully impact our immune system and affect our resistance to illness and our ability to heal.<sup>4</sup> Furthermore, recent related findings in consciousness research demonstrate that, contrary to the assumptions of the old science, the human mind is a powerful tool for self healing and may even be used to assist in the healing of others.<sup>5</sup>

This new view of human health fits well with discoveries in the hardest of the sciences, ironically the same scientific discipline that gave us the mechanistic worldview some 400 years ago. Indeed, today from quantum physics we learn that the universe is not composed of tiny separate building blocks, but is rather a vast interconnected web whose component parts are impossible to accurately isolate and quantify because their existence is really only understandable in the context of their relationship to each other. It is therefore unlikely to be a coincidence that a growing body of research also supports that the web of relationships that we engage in as human beings may be a crucial factor, if not *the* crucial factor in determining our health and our own ability to heal.<sup>6</sup>

From Chaos theory, a more recent outgrowth of physics, we are also learning that, in fact, human beings are complex systems that are not amenable to quantification, prediction, and control.<sup>7</sup> Therefore for health professionals, working with humans is much more like trying to predict and control the weather (another complex system) than it is like assembling and disassembling some predictable machine. And we all know how accurate weather prediction is! Anyone who works in the health fields has experienced this lack of controlability and predictability that seems to be an inherent part of the natural world and of the human experience.

### Holistic Health Promotion: Redefining Health

Despite being called health promotion, our profession has remained largely rooted in the biomedical disease-focused paradigm. In Holistic Health Promotion the shift in focus emanates from a new conceptualization of health. We learned from quantum physics that it is the relationship between subatomic particles that gives meaning to their existence. Similarly, in Holistic Health Promotion we emphasize that it is the relationships among the spiritual, biological, psychological, and social dimensions of the human experience that are critical to a true understanding of health and healing. Therefore, rather than defining health in terms of the absence of biomedical risk factors for disease or the accumulation of some ideal list of healthy behaviors, we believe that:

*Health can be redefined as the manner in which we live well despite our inescapable illnesses, disabilities, and trauma.*<sup>8</sup>

Traditionally, even when health is defined as more than just the absence or opposite of disease, it is still most often described as

*Figure 1*

### Comparing Scientific Assumptions

#### THE OLD SCIENCE:

**Mechanistic:** humans are sophisticated machines

**Reductionistic:** the whole is equal to the sum of its parts

**Dualistic:** matter and spirit are separate—only things that can be measured make a difference and should be studied

**Patriarchal:** masculine values (competition, control, and aggression) predominate

#### THE NEW SCIENCE:

**Organic:** humans are living, complex systems

**Holistic:** the whole is greater than the sum of its parts

**Interconnected:** social, emotional, and spiritual, as well as physical factors, are important to health and worthy of scientific study

**Egalitarian:** feminine values (nurturance, compassion, trust) considered to be of equal importance

*Compared to old science, new scientific discoveries suggest that we view health promotion in a new light.*

some optimal state of well-being that can be achieved if we just try hard enough. The World Health Organization, for example, defines health as “a state of complete physical, mental, and social well-being.” A trip to the local bookstore will reveal a seemingly endless supply of books by health experts that claim to provide the steps needed to reach this proposed state of optimal health. The problem is, of course, that as human beings, we all live with varying amounts of physical, psychological, and spiritual baggage. How many people have ever experienced or ever known anyone in optimal health? What does that mean? As medical writer David B. Morris suggests in his insightful book, *Illness and Culture in the Postmodern Age*:

*Complete well-being is a fantasy. Health, whatever else it might be is something that happens not so much in the absence of illness as in its presence.*<sup>8</sup>

It is more than likely that we will all struggle with emotional, spiritual, and physical issues during our lifetimes, and it is inevitable that we will die. Understanding and living skillfully and compassionately with these struggles, rather than perpetually searching for the latest holy grail of optimal health, may come closer to what it truly means to be healthy.

The critical point in understanding health from a holistic perspective is that health really has to do with the manner in which we deal with what we are given in life. The concept of health therefore becomes much less black and white, a complex and dynamic dance that is not easily quantified, controlled, or predicted. The emerging research compels us to broaden our focus to consider a wide range of psychological, social, and spiritual factors that appear to have as much if not more influence on our health than the more traditional biomedical risk factors for disease. These supportive factors for health are listed alongside the traditional risk factors for disease in *Figure 2*.<sup>9</sup> As we will see in the following article, *Reinventing The Profession*, this shift in our conceptualization has tremendous ramifications for health promotion and for our roles as health professionals. ★

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Jonathan Robison holds a doctorate in health education/exercise physiology and a master of science in human nutrition from Michigan State University where he is adjunct assistant professor. Dr. Robison speaks frequently at national conferences and has published numerous scientific articles on a variety of health-related topics. His work promotes shifting health promotion away from its traditional, biomedical, control-oriented focus. He is also involved nationally with the Health At Every Size movement and has been helping people with weight-related concerns for more than 15 years. Aside from his work, Dr. Robison's passions include his wife Jerilyn, his 9-year-old son Joshua, music, humor, and raquetball. Jon can be reached by emailing him at [robisonj@msu.edu](mailto:robisonj@msu.edu).



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Figure 2

## Health Promotion: Shifting The Focus

### Biomedical Focus

#### Risk Factors For Disease

Blood Pressure  
Total Cholesterol  
HDL Cholesterol  
LDL Cholesterol  
Total Cholesterol/  
HDL Ratio  
Triglycerides  
Smoking  
Drinking  
Cardiovascular Fitness  
Abdominal Strength  
Upper Body Strength  
Flexibility  
Back Care  
Weight  
Fat Intake  
Sodium Intake  
Sugar Intake  
Fiber Intake

### Holistic Focus

#### Supportive Factors For Health

Purpose in Life  
Spiritual Connections  
Social Support  
Meaning in Work (paid/unpaid)  
Ability to  
Experience Emotions  
Ability to Express Emotions  
Optimism and Hopefulness  
Perceived Happiness  
Perceived Health  
Intellectual Stimulation  
Restful Sleep  
Time Alone  
Pleasure and Play  
Financial Resources  
Laughter and Humor  
Movement/Physical Resilience  
Abundant/Varied  
Food Supply  
Contact with Nature

*The shifting focus of health promotion means more emphasis can be placed on the supportive factors for health, not just the risk factors for disease.*

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