Holistic Nutrition: Nourishing the Body, Mind, and Spirit

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Medical science has profoundly influenced the development of nutrition philosophy in the United States. However, Western medicine is currently in a state of transition, one that has important implications for our understanding of the significance of nutrition to human health. The authors begin by exploring the foundations of traditional Western medicine and nutrition philosophy from a historical perspective. They then suggest how the current transition in medicine is likely to affect our conceptualization of the relationship of nutrition to health in the future. The article concludes with recommendations for helping health professionals to employ this new information in their personal and professional lives. The authors' hope that this article will contribute to a broadening of our perspective on nutrition beyond current thinking, with the ultimate goal of helping people to develop a healthier and more peaceful relationship with eating and food.

Keywords: holistic; nutrition; mind/body/spirit

Medical science has profoundly influenced the development of nutrition philosophy in the United States. However, Western medicine is currently in a state of transition, one that has important implications for our understanding of the significance of nutrition to human health. We begin by exploring the foundations of traditional Western medicine and nutrition philosophy from a historical perspective. We then suggest how the current transition in medicine is likely to affect our conceptualization of the relationship of nutrition to health in the future. We conclude with recommendations for helping health professionals to employ this new information in their personal and professional lives. It is our hope that this article will contribute to a broadening of our perspective on nutrition beyond current thinking with the ultimate goal of helping people to develop a healthier and more peaceful relationship with eating and food.

We wish to acknowledge that clinical dietary counseling, particularly related to eating disorders and disease-related conditions, should remain primarily the responsibility of trained nutrition professionals. However, given the widespread public interest in nutrition

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and the wealth of nutrition misinformation in our culture, we suggest that it is important for all health professionals to broaden their understanding of nutrition by incorporating the same expanded framework being used in the current transition of medicine.

HEALTH: 17TH-CENTURY WORLDVIEW

The traditional "biomedical model" has led us to focus on the absence of physical disease as the primary definition of health. The biomedical model is based on classical Newtonian physics and Cartesian reductionism, which portray the universe as a great machine whose inert components can be understood only by reducing them to smaller and smaller parts. According to this worldview, emanating from the scientific revolution of the 17th century, only phenomena that are measurable and quantifiable are appropriate for scientific investigation. The human body is seen as a sophisticated machine, disease as a mechanical malfunction of the machine, and the health professional as the repairperson called on to "fix" the machine (Engel, 1992). This mechanistic view of reality—the whole is equal to the sum of its parts—has been the cornerstone of traditional Western approaches to health and medicine for almost 400 years. Although the biomedical model has led to tremendous advances, particularly in the treatment of acute trauma and illness, it is limited in its usefulness to deal effectively with many of the chronic conditions and behavioral struggles that form the basis of today's most common health problems (Dossey, 1991; Gordon, 1996).

Implications for Nutrition—Food as Fuel

As a result of the 400-year-old legacy discussed above, the traditional approach to nutrition science has taken on a decidedly mechanistic flavor. The human body is seen as "a finely calibrated combustion engine that should weigh a certain amount, [and] scientists have issued recommendations about exactly how many calories, calibrated to age, height, and activity levels are needed to achieve this goal" (Seid, 1989). The exact amount of nutrients needed for health and efficient performance has been determined, and food therefore has become "an instrument of science, stripped down to a quantity of energy and deprived of all its sensual and emotional aspects" (Seid, 1989). We have learned much and benefited a great deal from this mechanistic approach to nutrition. Yet as with the biomedical model, there is a need to consider a broader perspective, one grounded in the latest scientific findings concerning the nature of physical reality.

HEALTH: 20TH-CENTURY WORLDVIEW

Scientific discoveries in the 20th and 21st centuries are challenging virtually all of the underlying assumptions of the scientific revolution. We have learned from quantum physics that we do not live in a machine-like universe and that the material substance of our universe is not composed of tiny, solid building blocks but actually exists as a dynamic network of interconnected bundles or "packets" that are at the same time both matter and energy. Furthermore, these packets cannot be precisely quantified and have no existence by themselves but must be described by their relationship to each other (Capra, 1983). These and other findings point us toward a more holistic view of the universe—the whole is greater than the sum of its parts!

Along with this new worldview, a new set of assumptions is developing about why people get ill and how they heal. Recent findings in psychoneuroimmunology show us that human beings are much more than just an assortment of mechanical parts forming a sophisticated machine. In fact, a growing body of research supports that, unlike machines, humans have personalities, thoughts, feelings, and emotions all of which can profoundly affect our resistance to illness and our ability to heal ourselves (Pert, 1997). Health, therefore, involves much more than just the absence of disease or physiological risk factors. In fact, it involves all of those unseen, immeasurable quantities largely ignored and often discounted by the mechanistic worldview.

Medicine and the New Worldview

This new worldview is having a tremendous impact on the field of medicine. As an example, research from Harvard shown in Table 1 chronicles the phenomenal growth of the use of alternative and complementary medical therapies (CAM) in recent years (Eisenberg et al., 1998).

But there is more to this transition than just adding to or replacing traditional therapies with alternative/complementary ones. A recent national study published in the *Journal of the American Medical Association* titled "Why Patients Use Alternative Medicine" asked a large, randomly selected group of individuals from all over the country their reasons for embracing CAM. The findings indicated that for most people, the use of CAM was not associated with dissatisfaction toward conventional therapies. Instead, according to the study's author, Dr. John Astin of Stanford University School of Medicine, the research clearly indicated that "The use of alternative care is part of a broader value orientation and set of cultural beliefs, one that embraces a holistic, spiritual orientation to life" (Astin, 1998, p. 1553).

The practical implications for medical practice of this broader value orientation and holistic perspective held by people using CAM are compared to the more traditional biomedical approach in Table 2.

Implications for Nutrition—Food as More Than Fuel

To keep pace with our expanded understanding of the nature of health and illness, we need to redefine our conceptualization of nutrition in a manner consistent with this new holistic framework. Food intake is directed not only by physical hunger but also by appetite and satiety, both of which involve social, emotional, and cultural considerations. Appetite is mostly a psychological phenomenon that "tells you your body needs variety and your soul needs pleasure" and "moves you to seek out food you enjoy and encourages you to eat a variety of food" (Satter, 1999, p. 29). Satiety involves a complex interaction of physical and psychological factors that is only poorly understood even with our wealth of knowledge about nutrition science. Together, hunger, appetite, and satiety help connect us to our innate wisdom about what we need from food—not just fuel and nutrients for growth and development but also pleasure, connection, and fulfillment as well.

What is Nourishment?

Webster's dictionary defines nutrition as "the act or process of nourishing; that which nourishes." For human beings to be truly nourished, fulfillment needs to occur on a number

TABLE 1. Use of Complementary and Alternative Medicine (CAM) Therapies in the United States

42% of Americans use alternative medicine
629 million visits to alternative care
386 million visits to primary care physicians
70% of people do not tell their doctor
$12.2 billion paid out of pocket for alternative care

Source. Eisenberg et al. (1998).

TABLE 2. Comparing the Approaches

Conventional Biomedical Approach	Integrative Complementary and Alternative Medicine (CAM) Approach
Standardized treatments	Individualized treatments
Physician centered	Client centered
Receptive, passive patient	Active patient takes responsibility in the healing process
Focus on curing using substances and procedures	Substances and procedures enhance innate healing
Social, psychological, and spiritual values largely ignored	Social, psychological, and spiritual values critical to health
Focus on suppression of symptoms	Symptoms are seen as a manifestation of underlying issues
Focus on reducing risk of death and disease by controlling behaviors	Focus on enhancing quality of life by raising consciousness and encouraging choice

Source. Dr. Karen Wolfe.

of different levels. Maslow's hierarchy of needs (Dychtwald, 1990) can help frame nutrition in a more holistic perspective (see Table 3).

In keeping with the legacy of the scientific revolution and the biomedical model, much of our traditional conceptualization of nutrition has centered on the first two levels of the hierarchy. These two levels are mostly concerned with physical needs represented by measurable quantities such as calories, weight, and fat grams. Levels 3 and 4 of the hierarchy suggest a mind/body component to nutrition that focuses on enjoyable eating that is directed by internal cues of hunger, appetite, and satiety and on the recognition of the powerful role that feelings and emotions play in shaping our eating patterns. Level 5 explores the significance of food from a spiritual perspective, one that emerges when the other components are in place. It includes social and cultural rituals of gratitude for the role food plays in nourishing the body, mind, and spirit.

Holistic Nutrition

A practical model encompassing the three interrelated components of nourishment is depicted in Figure 1. It is the common space of the overlapping circles that represents holistic nutrition. All three components of this model are necessary if we are to take nutrition to the level of integrated health that medicine has begun to employ.

TABLE 3. Nourishment and Holistic Nutrition

Level of Human Needs as Represented in Maslow's Hierarchy	Implications for Nutrition
1. Physical needs	Nutrition as the study of foods and their constituents; their ingestion, absorption, transportation, and utilization to meet caloric and metabolic needs for survival.
2. Safety and security	Nutrition that focuses on the disease-preventing properties of foods and the need for a safe food supply.
3. Belonging, love, affection, and identification	Nutrition that helps to fulfill our social and cultural needs, requiring a healthy attitude toward body image and eating for pleasure.
4. Self-esteem	Nutrition that honors and trusts people's inherent capability to make food choices that nourish the body, mind, and spirit.
5. Self-actualization	Nutrition that recognizes the spiritual and cultural significance of food as life-giving energy from nature and the social and cultural rituals that give gratitude for this.

Source. Adapted from Abraham Maslow's hierarchy of needs in Dychtwald (1990, p. 346).

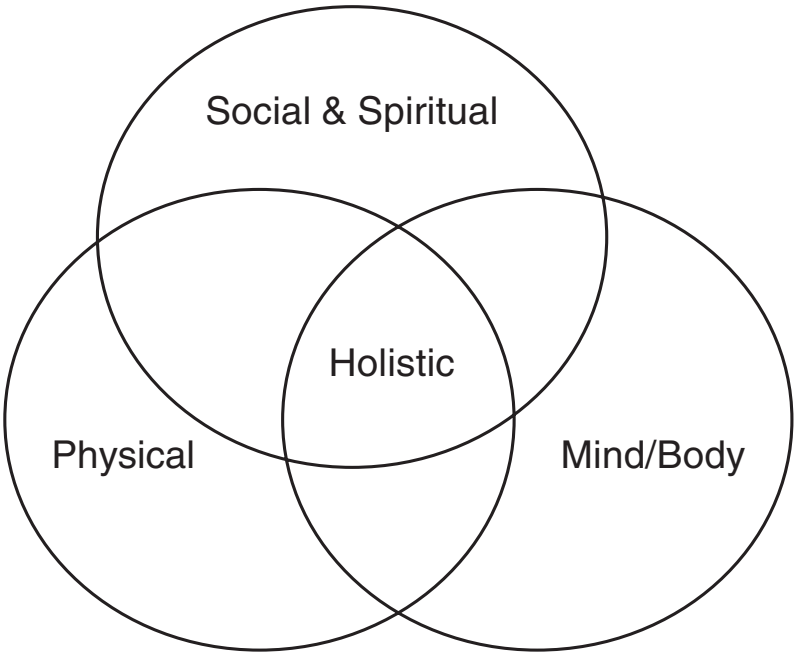

Figure 1: Interrelated Components of Holistic Nourishment
Source. Dr. Karen Wolfe.

Case Example: Functional Foods

A reexamination of the concept of "functional foods" can provide an example for the application of this broader nutrition perspective. The International Food Information Council defines functional foods as "foods that provide health benefits beyond basic nutrition" (Hasler, 1998). Similarly, it is the position of the American Dietetic Association that functional foods, including whole foods and fortified, enriched, or enhanced foods, have a potentially beneficial effect on health when consumed as part of a varied diet on a regular basis, at effective levels (Position of the American Dietetic Association, 1999).

As might be expected, the main focus of functional foods to date has been on the potential physical nutrition benefits. For example,

- yogurt contains components of probiotics that support the body's ability to resist illness;
- broccoli, carrots, and tomatoes are considered functional foods because they are rich in the physiologically active components sulforaphane, beta-carotene, and lycopene, which may have cancer-fighting properties; and
- foods such as soups and fruit juices are considered to be functional because they have been fortified with potentially health-enhancing substances like St. John's Wort and Ginkgo Biloba. (Hasler, 1998)

A holistic perspective on functional foods, however, begins with the assumption that the whole is greater than the sum of its parts. Research suggests that the major health benefits of food are best realized when whole rather than components of foods are ingested on a regular basis (Goldberg, 1994). In addition, although most present-day functional foods focus on the prevention of disease, a holistic perspective suggests other possibilities. Perhaps foods like chocolate or ice cream that bring pleasure and/or relaxation should be considered functional as well. What about "comfort" foods that bring back nourishing childhood memories and experiences? Foods involved in religious and social rituals certainly help us to share a sense of connectedness with each other and with something larger than ourselves.

These types of functional foods would address the levels of human need beyond just the physical. A burgeoning body of research from psychoneuroimmunology supports that the emotional experiences that can be provided by such foods have a powerful impact on our health, at least in part by enhancing immune function, thereby promoting healing and protecting us from disease (Pert, Dreher, & Ruff, 1998). Therefore, any food that promotes these pleasurable feelings or experiences may have physical as well as emotional benefits not typically associated with nutritional health.

REINVENTING NUTRITION

Although the biomedical approach to nutrition has increased our scientific knowledge of food, it also has contributed to an atmosphere of confusion and anxiety on the part of the general public. According to Tufts Diet and Nutrition Newsletter,

> Good nutrition is getting a bad name—one that smacks of rigidity, guilt-making and extremism. . . . Worse still, some eight out of ten (Americans) think foods are inherently good or bad . . . that every single bite they take represents an all-or-nothing choice either for or against good health. ("Just What Is a Balanced Diet Anyway?" 1992, p. 3)

This confusion is fueled by epidemiological research that emphasizes the association of certain foods or components of foods with mortality and disease. "Almost every day some new bit of research scares us about what we eat and sends us off on another tangent in search of a magic potion to keep us healthy" (Satter, 1999, p. 51). These findings are frequently invalidated by confounding factors and are often contradicted by subsequent studies. First we are told to eat margarine and not butter, and then we are told it may be healthier to eat butter. Eating pasta was supposed to make us all thin—now we are told it is making us fat. Salt has long been condemned as a cause of hypertension, yet some studies suggest it may have little bearing on blood pressure, and other studies even suggest an association between reduced salt intake and increased mortality (Taubes, 1998). Recent research has even exonerated the dreaded egg as a significant contributor to heart disease (Hu et al., 1999).

The result of this ongoing onslaught of conflicting information is a population obsessed, confused, and anxious about food and increasingly skeptical of the credibility of health professionals. In a recent survey reported in the *Journal of the American Dietetic Association*, 70% of respondents thought that Americans are obsessed with the fat in their diet and that the government should not tell people what to eat (Patterson, Sattia, Kristal, Neuhouser, & Drewnowski, 2001). Furthermore, there is growing evidence that this obsession, confusion, and anxiety is contributing to more serious consequences. Recent national data show that 50% of teenage girls are undernourished (Berg, 1997). Many are so scared and confused about what to eat that they are eating too few calories and exhibiting potentially serious deficiencies in nutrients such as calcium, iron, vitamins A and B12, magnesium, zinc, and copper. In increasing numbers, others are smoking cigarettes, bingeing and purging, engaging in dangerous weight loss practices, and losing their lives both figuratively and literally to eating disorders, body image disturbances, and exercise addiction (Kassirer & Angel, 1998).

HOLISTIC NUTRITION: A CALL TO ACTION

A holistic approach to nutrition does not exclude the usefulness of science-based dietary guidelines. Yet for many people, nutrition guidelines and prescriptions may not be the highest priority. If a loved one falls overboard and is screaming for help, it is perhaps not the best time to offer swimming lessons but rather time to throw a lifeline. Similarly, with so many people anxious about their relationship with food, there is often an urgent need to first help people rationally and intuitively wade through the hype and confusion surrounding issues of eating and nutrition in this culture.

Clearly, our conceptualization of nutrition must go beyond the traditional focus of limiting the intake of "unhealthful" foods and promoting the intake of "healthful" foods to avoid disease. Incorporating a more holistic perspective can empower individuals to learn from their body's own internal signals about what and how much to eat to meet their needs on all the different levels of nourishment. This can go a long way toward relieving people's confusion and anxiety regarding constantly changing "expert" opinions about what foods to eat and not to eat. Although supplementation and prescription of food components may have a role to play for some people, the emphasis for most will almost surely be on achieving variety and balance through the consumption of whole foods.

Finally, and perhaps most important, our understanding of the relationship of food to health and disease must be reconsidered in light of this broader perspective. Holistic nutrition recognizes the important impact that food choices have on psychological, emotional, and social, as well as physical health. However, it also acknowledges the limitations of pre-

dicting specific outcomes for individuals from specific diets as well as the problems inherent in applying epidemiological research on the benefits and dangers of particular foods directly to individuals. By incorporating this expanded, holistic framework, health professionals can help to put nutrition into a more reasonable and accurate perspective by acknowledging that,

> although we would all like to believe that changes in diet and lifestyle can greatly improve our health . . . with a few exceptions such as smoking cessation, many if not most such changes will produce only small effects. And the effects may not be consistent. A diet that is harmful to one person may be consumed with impunity by another. (Angell & Kassirer, 1994, p. 190)

Putting the Principles Into Practice

The concept that there are emotional, cultural, and social dimensions to food may not be new for many health professionals. However, the following questions may help clarify to what extent we embrace these philosophies in our personal lives and in our daily interactions with the people we serve. Where appropriate, references for further exploration are provided.

- Should we always calculate caloric needs as a key part of our understanding of people's energy intake? Research shows that infants and children are capable of listening to their bodies' internal cues regarding when and how much to eat. Certainly, this intuitive sense can be regained in adulthood (Davis, 1928; Johnson & Birch, 1994).
- Should we assess "ideal" or "normal" body weight based on established guidelines? Preoccupation with trying to fit into these increasingly restrictive guidelines is often a driving force for overeating and/or restrictive eating (Ikeda et al., 1999; Strawbridge, Wallhagen, & Shema, 2000).
- Should we ascribe to and/or promote a list of "good" and "bad" or "healthy" and "unhealthy" foods to be eaten or avoided? Supporting that all foods fit into a healthy diet can begin the process of reducing nutrition-related anxiety and returning the ownership of food choices back to the individual (Satter, 1999).
- Should we always close our nutrition interactions with those we serve by making recommendations for nutrition-related change? By listening and reassuring people that their food choices are an acceptable part of who they are, can we diminish their fear of judgment and help them to connect to their intuitive reasons for making food choices (Hirschmann & Munter, 1995)?

SUMMARY AND CONCLUSION

External cues and pressures for unhealthful eating are omnipresent in our fast-paced, instant-gratification-oriented culture. Unfortunately, there is little evidence that health professionals' attempts at trying to externally control what and how much people eat are having much of an impact on their food choices. The research suggests that children are capable of eating according to internal cues, and although certainly not a simple task, we believe that adults can relearn these skills that have been lost due to time constraints and cultural pressures. For children, what is needed is early and continued reinforcement, both at home and in school, for honoring and maintaining their innate abilities. For both children and adults, the process will include the teaching of basic nutrition and wellness guidelines; however, partic-

ularly for adults, the emphasis will most certainly focus on helping them rediscover their internal mechanisms for guiding food intake.

In nutrition, as in medicine and other health-related fields, health professionals can view our role as that of guide, facilitating *nourishment* of the individual's whole health needs: emotional, social, cultural, and spiritual in addition to physical. Intuitively, many health professionals have recognized this approach as being more effective for promoting long-term positive change and more compassionate for respecting people's value systems and unique needs. Broadening our nutrition perspective in this fashion can help people to create a more peaceful and healthy relationship with food. As David Sobel and Robert Ornstein suggest in their landmark book, *Healthy Pleasures*, "The important point is that worrying too much about anything—be it calories, salt, cancer, or cholesterol—is bad for you, and that living optimistically, with pleasure, zest and commitment, is good" (Ornstein & Sobel, 1989, p. 24). Holistic nutrition approaches can help people enjoy the many benefits of food by promoting variety, pleasure, and balance—a recipe for nurturing the body, mind, and spirit.

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