



Health Connections

LINKING NUTRITION RESEARCH TO PRACTICE

NUTRITION EDUCATION:

Turn Daily Food Choices Into Healthful Habits

Introduction

Nutrition education has evolved from 'nice-to-know' guidance on protective food choices, economical buying practices and food preparation to a life skill essential to optimize health and lower the risk of chronic disease. Consumers are trying to eat healthfully to avoid health problems later in life, and agree that this is a better way to manage illness than medication.¹ This issue of *Health Connections* looks at characteristics of effective nutrition education programs and strategies that health professionals can use to help clients adopt sustainable food-choice behaviors that support a healthy lifestyle.

Nutrition Education Defined

Contento defines nutrition education as "any combination of educational strategies, accompanied by environmental supports, designed to facilitate voluntary adoption of food choices and other food- and nutrition-related behaviors conducive to health and well-being. Nutrition education is delivered through multiple venues and involves activities at the individual, community and policy levels."²

As consumer choices continue to expand through increased food variety and availability, nutrition education is critical to provide tools and strategies to give consumers more control over their food choices in a variety of situations. Nutrition education helps consumers sort out messages in the marketplace, learn appropriate portion sizes to enjoy their favorite foods in moderation and use the Nutrition Facts Panel and Daily Values to compare and select foods that meet their individual needs. Over time, nutrition education that promotes variety, proportionality, moderation and *gradual* improvement in food choices can help reverse the escalating incidence of diet-related chronic diseases such as obesity, cardiovascular disease and cancers.

Nutrition Education and Public Policy

In a complex society, community and public policy support are also needed for consumers to achieve optimal health through diet. This need has been identified by the 2005 Dietary Guidelines Advisory Committee (<http://www.health.gov/dietaryguidelines/dga2005/>) and others, including the American Dietetic Association's (ADA) support for nutrition integrity in schools. ADA maintains that schools and the community have a shared responsibility to provide students with access to high-quality foods and school-based nutrition services as an integral part of the total education program.³

Gradual changes at the individual and environmental levels have led to the increased economic, social and personal costs of obesity and obesity-related conditions. For example, increases in body weight and the associated health risks could result from an accumulation of small alterations in energy balance (e.g., an increase of just 100 calories a day) at the individual level. Similarly, many slow and synergistic changes in food composition, availability, costs, portion sizes, meal patterns, societal and cultural factors and the environment have influenced individuals' food choices and activities. All of these factors have potential health consequences. Nutrition education delivered consistently in health-promoting environments holds promise to reverse this trend toward obesity and related diseases. *continued on page 2*



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Mary Jo Feeney specializes in nutrition communications and marketing. With over 30 years experience in public health nutrition and education, she currently is a leading consultant to the food, agriculture and health care industries. A charter Fellow of the American Dietetic Association, Mary Jo served on the Board of Directors of both the American Dietetic Association (ADA) and its Foundation (ADAF) and received the association's Medallion Award in 1996.

Nutrition Education Programs — Examples of Success

There is no “one size fits all” approach to successful nutrition education efforts, however, successful and promising approaches have been identified.^{4,5}

Some school-based nutrition interventions have produced a moderate increase in fruit and vegetable intake among children.⁶ Successful interventions against childhood and adolescent overweight have included a combination of family-based and school-based multi-component programs: promotion of physical activity; parent training/modeling and involvement; behavioral counseling; and nutrition education.⁵ The programs Gimme 5, SPARK, CATCH, and Planet Health have reported statistically and clinically significant results.⁴ Nutrition Pathfinders[®], an interactive middle school-based program, was also successful in increasing student knowledge and improving attitudes toward nutrition.⁷

Improving the Impact of Nutrition Education

Articles in the media often highlight the marginal or lack of effect of nutrition education efforts. Reasonable short-term expectations for nutrition education programs include raising participant awareness and imparting information, knowledge and skills. Longer-term expectations are for participants to incorporate skills into consistent behaviors and for these health-enhancing behaviors to result in reduced risk factors for health conditions. Results from multiple evaluation studies have identified common features of effective programs, described below:

Message framing

Nutrition messages are generally most effective when focusing on positive ways to make healthful food choices over time, rather than on avoiding individual foods. This total diet or overall pattern approach is exemplified in USDA’s food guidance system, MyPyramid, and in the DASH (Dietary Approaches to Stop Hypertension) food pattern. These patterns focus on nutrient-rich foods including fruits, vegetables, whole grains, lean protein sources and low-fat dairy products.

Tailoring message – using technology

Tailoring nutrition education messages does not necessarily mean individualized counseling, which often is not feasible with limited resources to reach large, diverse populations. Today, technology enables highly tailored and ‘nomadic’ nutrition education—through telephone counseling, telephone-linked care/instructions, computer-based multimedia and Web-based programs.

Intervention intensity

Intensity measures the ‘dose’ or how much nutrition education exposure is needed over what duration to achieve the desired behavior—whether delivered individually, in groups, through technology or a variety of communication channels and venues. Limited research on intervention intensity and dietary behavior change suggest that success is higher with interventions that:

- involve personal contact through small group meetings;
- use some type of initial self-assessment and identification of strategies for changing behavior;
- incorporate several delivery channels;
- involve more than two contacts;
- are delivered over long periods of time.

Nutrition Education — The Next Level

In this interview, *William D. Evers, Ph.D., R.D.*, Professor and Extension Specialist, Department of Foods and Nutrition, Purdue University, comments on lessons learned and looks to the future of nutrition education.

Q. What do you consider the most significant lessons learned from past nutrition education efforts?

A. Nutrition education has allowed itself to be caught up in what I call the “Sesame Street syndrome.” People are not taught enough science to understand even basic nutrition concepts, so nutrition educators constantly lower the level of the messages to reach consumers. The result can be a lot of simplistic messages that do not really help people change. There is no easy, one-shot way to decrease health risks through food or anything else. **It takes day-to-day actions that become habitual over**

time. An important part of nutrition education is helping consumers take responsibility for their food choices. Nutrition education is just as much about the ‘way’ to make healthful food choices from a behavioral aspect as it is about the knowledge component.

It is tough to put out messages about sensible concepts such as “moderation and variety” in a society based on consumption. With food readily available, cheap and tasty, such messages may lack credibility with consumers, who, after all, ‘consume.’ Nutrition education is out there and functioning, and it will work. But it is competing against strong environmental



William D. Evers, Ph.D. R.D.

factors. It is our charge as health professionals to meet this challenge by reaching consumers with relevant, behavioral messages that enable consumers to individualize and implement broad nutrition guidelines on a consistent basis.

Q. How would you define or measure successful nutrition education efforts?

- A. Defining success is not really a problem in my mind. You can decide what you want to measure, but we are not running studies with large enough numbers over long enough periods of time. You can't study 50 or even 500 people for months or a year and then draw realistic conclusions. You need thousands of people and years of study and then replicate this several times if you want to identify specific educational tools that will work over and over again. That probably won't occur, and I'm not sure it has to for nutrition education to be called "successful."

Research into the effectiveness of nutrition education is something that is wide open regarding interpreting results. The biggest uncontrolled variable you can have is human subjects. It is almost impossible to blind a study investigating behavior change. Both the subjects and the researchers change their interpretations based on what is going on around them, including outside influences from the media and social interactions. Research that can be accurately replicated is very difficult.

Since humans are the most variable of creatures, we need a lot of different nutrition education tools, and, more importantly, we need well-trained professionals who know which tools to use when and who have the authority to deliver those tools to large numbers of people over a sustained period of time. If we track this type of approach we should see decreases in major chronic health problems even after we factor out advances in medical treatment.

Q. How can health professionals emphasize and support the need for lifelong nutrition education?

- A. The quick answer is "get elected"! Lifelong education has to be a commitment by the community at large—our states and our whole country. If we want to make a real change, we have to accept nutrition education and other health education (physical fitness, safe sex, avoiding drug use and smoking, responsible driving) like we accept roads, schools, communication systems, fire and police protection. It takes more

than just nutrition education—it takes **nutrition education AND public policy working together to commit monetary and human resources to deliver effective programs across the country.** When nutrition education becomes part of the fabric of society, we pave the way for healthier future generations.

Q. In the future, how can technology take advantage of what we know about successful nutrition education efforts?

- A. The ability to communicate with large numbers of people and to really tailor responses to individuals is an exciting part of new technologies. The real public use of the Internet is barely 12 years old. Ten to 15 years ago, it would have been hard to project this type of explosive expansion of public access to information—whether accurate or not. The current challenge for nutrition education is to break through a host of technological distractions (text messaging, blogging, cell phones) and the rather mindless flow of essentially useless information and get people interested in really thinking about themselves and their lives. We have to make our messages exciting, 'sexy' and fun while avoiding the "Sesame Street syndrome."

What I am hopeful for is that we have not really started using technologies in new ways. Rather we are stuffing old methods into new technologies. Slowly we will find new ways to use the technologies to reach consumers in their preferred setting, provide feedback on their progress and gain the feedback we need as health professionals to gather and document the positive benefits of nutrition education.

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PRACTICE POINTS FOR THE HEALTH PROFESSIONAL

- Stay current on nutrition education research through professional organizations and publications.
- Incorporate characteristics of effective programs such as:
 - an individualized approach that tailors meaningful food and physical activity choices AND messages to life stage and stages of change.
 - increased communication channels providing a consistent message delivered in multiple environments—home, school, worksite, recreation venues.
 - involvement of family members, parents or caregivers.
 - follow-up.
 - messages that support dietary patterns and a balanced intake of nutrient-rich foods such as fruits, vegetables, whole grains, lean protein sources and low-fat dairy products.
- Remember that success as defined by a program's protocol in clinical terms, such as change in BMI, may differ from an individual's definition, such as the stabilization of weight gain for a month.



How critical is nutrition education in helping people make changes to their diet?

Find out how public policy and nutrition education can work together to improve food choices in this issue of *Health Connections*.

www.dairycouncilofca.org

Your patients and clients are faced daily with the difficult task of deciding what foods are best for their health; they need guidance in order to make informed and healthful choices. Through ongoing monitoring, Dairy Council of California identifies emerging trends in health, nutrition and education. In partnership with leaders in the nutrition research field, we will bring you current information and experts' perspectives on these trends and how they might impact your clients' lifestyle choices. For 85 years the Dairy Council has been an innovator in nutrition education and our materials reflect advances in research and the most current health recommendations. Please let us know if you have feedback on this newsletter or on topics for future newsletters (email: info@dairycouncilofca.org).