Nutrition programs for school-aged children traditionally have two different sets of goals. The first set strives to enhance the child’s basic nutrition and food knowledge and to help children select a healthful diet. The second set aims to reduce disease risk by forming health-promoting eating behaviors. Behaviorally focused programs have been somewhat successful in meeting these goals.

Behaviorally focused nutrition education addresses three domains of learning: cognitive, affective and behavioral. Cognitive teaching presents children with the “how” of eating more healthfully — which foods should be part of a healthful diet and which should be eaten only on occasion. Affective teaching addresses factors that motivate children to change the way they eat. The behavioral component of nutrition education helps children build new eating skills and behaviors.

Successful education programs rely heavily on the behavioral component of learning. Incentives, reinforcement and rewards can be classified as behavioral elements that keep children interested in learning. Other factors found to increase the nutrition knowledge of children include adequate time and intensity devoted to nutrition education and family involvement.

Parents and family members serve as role models and influencers in the child’s environment. Their involvement is particularly important when educating younger children, who still model parent behavior rather than the behavior of their peers. Parents often are receptive to participating in the education process, particularly at home. In one program, a short video for children and other nutrition education materials were sent home to interested parents. Almost all parents reported preferring to receive information at home rather than attending a workshop. Furthermore, more than half the parents changed their own eating practices as a result of the program. A multilevel program involving students, teachers and the family increases the likelihood of children maintaining new eating habits in the long term.

The following are among the strategies recommended to promote healthful eating among lower elementary students:

- Involve parents in nutrition education through homework or take-home videos.
- Provide role models (parents and teachers) for healthful eating.
- Use incentives to reinforce healthful eating.
- Identify easy-to-prepare, tasty and healthful snacks such as fruits and vegetables.
- Increase students’ confidence in their ability to make healthful eating choices.

The “5 A Day for Better Health” program has inspired schools nationwide to create multilevel, integrated programs that teach and motivate children to eat more fruits and vegetables daily. A behavioral curriculum of classroom education, parental involvement, school food service changes and industry support can increase fruit and vegetable consumption. The “Five For Kids, Too!” program is a successful example of this type of curriculum.
FIVE FOR KIDS, TOO!

Children at lower income status are at higher risk for health problems. This may be attributed, in part, to poor diet. According to the National Cancer Institute, American children average only 3.4 servings of fruits and vegetables per day, compared with a national goal of five daily servings. “Five for Kids, Too!” was developed to teach young children simple dietary changes that would keep them healthy and also delay the onset of diseases like cancer and heart disease.

GOALS AND OBJECTIVES

The primary goal of the “Five for Kids, Too!” program was to increase daily consumption of fruits and vegetables among the target audience. Other goals included increasing awareness of the importance of fruits and vegetables, promoting willingness to try fruits and vegetables, and decreasing resistance to eating fruits and vegetables.

METHODOLOGY

The “Five for Kids, Too!” program was created by a Maryland elementary school for kindergarten through third-grade students. Year-round activities were designed to reach children, as well as parents and caregivers, who have the biggest influence on their dietary habits. Activities used free materials from industry and from the American Cancer Society, and were supplemented with letters home to parents, incentive gifts for the children and a classroom visit from a nutritionist.

A new media center enabled the creation of monthly five-minute instructional videos. The videos were designed to be entertaining and featured the school nutritionist. Although the first set of videos was amateur in quality, a second set was taped on a more professional level.

The program is currently offered to and conducted by first-grade teachers. Approximately 50 teachers were expected to complete the program in the 1998-1999 school year.

RESULTS

The “Five for Kids, Too!” program has been evaluated through presurveys and postsurveys of parents and children and through teacher evaluations. The children’s survey contains just one question: “How many servings of fruits and vegetables do you think you should eat each day?” The parent survey includes several questions related to the child’s eating behaviors and attitudes about fruits and vegetables.

The results of the children’s survey showed an increase from 17 percent to 87 percent of children answering that they need to eat five servings daily. Parent postsurvey results demonstrated that a higher percentage of children were consuming three to four or five to six daily servings of fruits and vegetables, and fewer were consuming only one to two servings. More than two-thirds of parents stated that their child was more willing to taste fruits and vegetables, and that the program helped their child and the whole family to eat more fruits and vegetables. Parents expressed gratitude and appreciation for the efforts of the teacher.

Teachers generally rated the program very highly. Approximately 77 percent described its effectiveness as excellent or very good, and more than 90 percent stated that they would be willing to repeat the program.

LESSONS LEARNED

“Television is a powerful medium for this age group. Even the first set of amateur videos was well received by the children. Although producing the videos took a lot of time, they could be used repeatedly without additional work.

“The program is now designed as a ‘copy and collect’ project for the teachers — forms are copied, distributed and later collected — because we found that teachers would participate only if their perceived workload was not increased.”

— Linda Goldsholl, MS, RD
Nutritionist
Montgomery County Department of Health & Human Services

REFERENCES

CASE STUDIES

QUESTIONS

1. What are the two general nutrition education goals for children?
   a. To enhance basic nutrition and food knowledge, and to help children select a healthful diet
   b. To enhance basic food and nutrition knowledge, and to reduce disease risk by changing eating behaviors
   c. To reduce disease risk by changing eating behaviors, and to increase cooking at home
   d. To help children select a healthful diet, and to teach children how to make a shopping list

2. Which are the three domains of learning?
   a. School, home and environment
   b. Reading, writing and arithmetic
   c. Behavioral, interpersonal and personal
   d. Cognitive, affective and behavioral

3. Why are parents and family members considered influencers in the young child’s environment?
   a. They are responsible for feeding the child
   b. They make the rules
   c. They model the behavior for young children
   d. Young children will do what their parents tell them to do

4. Which is not among the recommended strategies for promoting healthful eating among elementary school students?
   a. Tell them which foods to avoid
   b. Involve parents in nutrition education
   c. Use incentives to reinforce healthful eating
   d. Identify healthful snacks such as fruits and vegetables

5. According to the National Cancer Institute, how many daily servings of fruits and vegetables are consumed by the average child?
   a. 2.2
   b. 2.9
   c. 3.4
   d. 4.5

6. What did “Five For Kids, Too!” parent surveys show?
   a. That children were not willing to eat more fruits and vegetables
   b. That children liked fruit, but not vegetables
   c. That all children ate five daily servings of fruits and vegetables
   d. That most children increased their daily intake of fruits and vegetables

7. Why was “Five For Kids, Too!” changed into a “copy and collect” program?
   a. “Copy and collect” is less expensive
   b. Teachers would participate only if their perceived workload was not increased
   c. The former program format did not work
   d. Research shows that “copy and collect” programs are the most efficient

ANSWERS:

1. b
2. d
3. c
4. a
5. c
6. d
7. b