This research-to-action brief reports the results of a study that examined the impact of nutrition education on the food security status of low-income participants. The education was provided through the New York State (NYS) Expanded Food and Nutrition Education Program (EFNEP).

Providing nutrition education
EFNEP provides nutrition education to families with children at or below 185% of the federal poverty line. EFNEP's goal is "to assist limited resource audiences in acquiring the knowledge, skills, attitudes, and changed behavior necessary for nutritionally sound diets, and to contribute to their personal development and the improvement of the total family diet and nutritional well-being"[1]. One of the primary objectives of EFNEP is to promote food security by helping participants identify and develop strategies to manage their food budgets and related resources, such as food stamps, to meet the family's needs.

Measuring food security
Three years of data (1999-2001) were used to assess change in food security status." Behavior change data were collected as part of the EFNEP Evaluation and Reporting System. [2] At the beginning and end of the program, participants completed a "Behavior Checklist" that included the question, "How often do you run out of food before the end of the month?" Participants' responses included possible answers from do not do to almost always. Numeric scores from 1 to 5 were assigned, with 5 representing almost always, the most food insecure response.

This study included 16,146 EFNEP participants who represented an ethnically and racially diverse population in NYS. Two groups were compared: 15,846 graduates and 300 participants who terminated their participation prior to graduation. In NYS outcome data are collected prior to education (pre), on or about each six lessons, and when education is completed and participant is ready to graduate (post). Participants graduated at different times with approximately 36% graduating at 6 lessons, 19% at 7 or 8 lessons, 31% graduating at 9-10 lessons, and 15% at 11 or more lessons.

Are graduates of EFNEP less food insecure?
There were differences in changes in food security scores based on sociodemographic and program characteristics (race, age, place of residence, receipt of food assistance, and program delivery method). Comparing participants who graduated to those who terminated, Whites and Hispanics showed significantly greater decreases in food insecurity score than Asians, although all ethnic groups showed an improvement with education. Farm residents did not show a significant change in food insecurity, and residents of small towns showed a greater improvement than residents of cities. Older participants’ declines in food insecurity were less than younger participants. The method of program delivery (i.e. individual or group education) was also significantly associated with change in food insecurity.
When statistical methods were used to control for sociodemographic and program characteristics, nutrition education through EFNEP still effectively decreased the food insecurity status reported by graduates. Overall, graduates became less food insecure than those who terminated the program prior to graduation.

Does the number of lessons matter?

The number of lessons completed by graduates was directly and significantly associated with greater decreases in food insecurity score, adding strength to the inference that it is the nutrition education that is accounting for the change. An important focus of EFNEP is helping participants develop and expand skills to use their food-related financial resources more effectively. Education includes concepts of budgeting, comparing prices, using coupons, shopping with a grocery list, and planning meals ahead of time to decrease impulse buying. It is logical to think that more exposure to these concepts could result in greater decreases in food insecurity or, said another way, improvements in food security.

In summary, nutrition education can decrease food insecurity

On average, about half of program participants. This study supports the importance of education in decreasing the food insecurity of low-income families and suggests that there is a dose response relationship between the number of lessons received and decreases in food insecurity. Programs such as EFNEP that educate families in food selection and resource management skills can decrease the risk of food insecurity.

Application to practice

Education that helps low-income participants better use their food resources will lower rates of food insecurity. In addition, there are other risk factors for food insecurity that educators can assist families in dealing with. These include no savings, insufficient food assistance, inadequate food expenditures, unexpected expenses, and lack of social support. Educators routinely refer participants to food assistance and other social service programs; 704 such referrals led to new program involvement during the 3 years of the present study. Social support is provided to participants in EFNEP, both by paraprofessional educators who are preferentially hired from the indigenous community, as well as by other members in EFNEP groups who share similar circumstances.

For more details:


References cited: