Indiana Food Stamp Nutrition Education Lesson Series is Effective in Improving Food Insecurity and Food Insufficiency

By Gayle Coleman

Faculty working with Food Stamp Nutrition Education (FSNE; now SNAP-Ed) Assistants conducted a randomized, controlled study to determine the effect of FSNE on participants’ food insecurity and food insufficiency. All the participants in this study were qualified to receive food stamps or under 130% of the income-to-poverty ratio, at least 18 years of age, female, and the person responsible for food purchases and food dollar management in their household. They represented a mix of urban and rural audiences in 24 Indiana counties.

Participants were recruited, lessons were delivered and food insecurity and food insufficiency were assessed between January and October 2005. Trained FSNE Assistants recruited participants and randomized them into either the experimental group or control group. Randomization was done by assigning every other participant to the control or experimental group. Participants who arrived together were assigned to the same group to prevent knowledge of a difference in treatment.

The 6-item US Household Food Security Scale and a USDA Food Insufficiency Question were included with over 70 questions related to FSNE lesson content and demographic questions in a pre- and post-questionnaire. Wording of the standard food security questions was converted to a 30-day reference period to better reflect the duration of the FSNE lessons.

Since prior experience indicated that participants are more willing to complete a questionnaire after one FSNE lesson is presented, the first lesson which provided an overview of the USDA MyPyramid food groups and energy balance was given to both the experimental and control groups before the pre-questionnaire was completed. The experimental group then received four additional lessons over a 5-week time period. One lesson each from four different domains – food groups, food safety, shopping behaviors and resource management, and wellness – made up the remaining four lessons of the series. Examples of lessons in the wellness domain are eating on the run, healthful snacks and making meals from what’s on hand. Participants in the control group received a delayed intervention. That is, the control group received the additional four lessons at least five weeks after completing the pre-questionnaire and after completing the post-questionnaire. Lessons were conducted with individuals in their homes or with groups at WIC sites, community centers or similar community locations.

The food security scale was scored as directed by the USDA Guide to Measuring Household Food Security. For each treatment group, responses for food insecurity were categorized into ‘food secure’, ‘food insecurity without hunger’ or ‘food insecurity with hunger.’ For each treatment group, responses to the food insufficiency question were combined into two categories – participants who chose either ‘enough of the kinds of food we want to eat’ and ‘enough but not always what we want to eat’ into the food sufficient category, and participants who chose ‘sometimes not enough to eat’ and ‘often not enough to eat’ into the food insufficient category.
Results of this study indicate that program participants who completed a series of five lessons on dietary quality, food safety and food resource management topics improved their food security and reduced their food insufficiency more than control participants. At baseline, there were no significant differences between the experimental and control groups for food security or food sufficiency. After the lessons, there were significant differences (p<.05) between the experimental and control groups for food security (73.0% and 62.2% respectively), food insecurity with hunger (5.1% and 12.2% respectively) and food insufficiency (6.0% and 15.3% respectively.)

Prior to the study, the authors expected several characteristics from the information collected (participants’ age, level of education, marital status, household employment, number fed in household, and food stamp use) to be associated with food security and food insufficiency improvement. However, only initial food security, initial food insufficiency and employment status were significant. Employed FSNE participants and/or those with employed partners were able to improve food security more than households without employment. Employment status was not a significant factor for improvements in food insufficiency.

The authors stated that they believe the FSNE Assistants had much to do with the success of the lessons. The FSNE Assistants tailored the lessons for participants needs, and established a trusting and nonjudgmental relationship that provided an environment where participants were honest about their needs and open to suggestions for change.

*Implications for Extension Educators:* Although we cannot assume that we would always have the same results in Wisconsin, many of the FSNE lessons in this study were similar to lessons we use in WNEP. Thus, we can be encouraged that work similar to ours has been shown to meet an important WNEP goal, i.e., helping families to be more food secure.

Source
Materials Recently Added to WNEP Resource Database or the Media Lending Library

- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDKD), National Institutes of Health image library
  https://www.uwex.edu/ces/flp/apps/flrc/tch_res2/resourceDetails.cfm?rid=3474
- Iowa State University Extension, 2008 Current Issues in Nutrition conference DVD has been placed in the Media Lending library.

Coming soon/in review process:
- Updated Food and Nutrition Fact sheets in English and Spanish
- Updated What Can $6 Buy display focusing on fruits & veggies
- Fruit & vegetable costs activity
- Rethink Your Drink flipchart and supporting materials focusing on beverages and drinking utensils for infants and toddlers
- 4 Preschool lessons adapted from Tickle Your Appetite and parent newsletters
- Series of kindergarten lessons