

# THE IMPACT OF INCENTIVES ON NUTRITION EDUCATION

BY JO BRITT-RANKIN, MS, PHD, CANDY GABEL, MS, RD, LD, AND KIMBERLY J.M. KELLER PHD

This project was designed to assess the impact of nutrition education and the use of monetary support for food purchases on positive dietary behavior changes. This project relied on the Expanded Food and Nutrition Education Program (EFNEP) population, which is characterized as low-income (below 185 percent poverty). All participants were newly enrolled in EFNEP. Three treatment groups were established to compare the effectiveness of classroom education that included the addition of a hands-on grocery store tour, a \$25 grocery store gift certificate to aid in the selection and consumption of fresh fruits, vegetables and whole grains, and basic food resource management skills. The goal of this project was to demonstrate the effectiveness of incorporating of grocery store tours into the nutrition education of EFNEP.

## HYPOTHESIS

Our hypothesis was that the incorporation of a grocery store tour and a gift card will significantly improve food selection and food resource management skills of program participants.



Funded through the College of Human Environmental Sciences, Margaret W. Mangel Faculty Research Catalyst Fund

## METHODS

This project assigned EFNEP participants in the Kansas City and St. Louis metropolitan areas to three treatment groups. Standard EFNEP evaluations were used to evaluate the study. Participants completed a 24-hour diet recall and a food behavior checklist during the first and final class sessions. Participants were asked to repeat the checklists two months following their final class to determine if behaviors were sustained. Data was analyzed using the NERS-5 database that is used nationally with EFNEP participants.

## TREATMENT GROUPS

### TREATMENT 1

- Received a minimum of six *Eat Smart • Being Active\** lessons.
- Completed a pretest, post-test and 2-month follow-up evaluation, which includes a dietary recall and behavior checklist.

### TREATMENT 2

- Received a minimum of six *Eat Smart • Being Active\** lessons.
- Participated in a grocery store tour using the Shopping Matters\*\* curriculum with a nutrition educator and/or a student.
- Completed a pretest, post-test and 2-month follow-up evaluation, which includes a dietary recall and behavior checklist.

### TREATMENT 3

- Received a minimum of six *Eat Smart • Being Active\** lessons.
- Participated in a grocery store tour using the Shopping Matters\*\* curriculum with a nutrition educator and/or a student.
- Received a \$25 grocery store gift card to purchase foods following the grocery store tour.
- Completed a pretest, post-test and 2-month follow-up evaluation, which includes a dietary recall and behavior checklist.

\* developed by University of California, Davis and Colorado State University specifically for the low-income audience and EFNEP participants.

\*\* curriculum developed by Cooking Matters

## OBJECTIVES

- 85% or more will improve at least one nutrition behavior related to dietary quality and physical activity.
- 80% report implementing one or more food resource management practices to effectively use their food dollars.
- 40% will sustain increased consumption of fruits and vegetables, low-fat dairy products and/or whole grains two months following the conclusion of the education.
- Participants who received a grocery store tour as part of their education will show more improvement in nutrition behaviors related to dietary quality and food resource management than those who receive classroom education only.

## RESULTS

	Percent of participants improving at least 1 nutrition behavior	Percent of participants improving at least 1 food resource mgmt behavior	Percent of participants who have a positive change in any food group
TREATMENT 1	67%	65%	100%
TREATMENT 2	73%	67%	93.3%
TREATMENT 3	79%	74%	95.8%

The table above addresses the first three objectives of the project. For Objective 1 and 2, positive behavior change was seen, however, not at the expected rate. There was also no significant difference between treatments. For Objective 3, the number of participants who made a positive behavior change within one or more food groups was well above expected rates for all treatment groups.

Objective 4 indicated that those who received a grocery store tour or a tour and gift card would significantly improve their behavior related to nutrition and/or food resource management. Overall, we saw little difference between the three treatment groups.

## CONCLUSIONS

This study shows that regardless of treatment, participants report improvement in dietary choices, however, no significant differences were seen between groups other than the vegetable intake among Treatment 2 participants and grain consumption among Treatment 3 participants.

Although further studies are recommended, this study indicates that a monetary gift card incentive does not improve behavior change significantly. This study appears to indicate that classroom education (7 lessons or greater) provides the greatest influence on EFNEP participants. The addition of a grocery store tour and/or a monetary incentive do not significantly impact behavior change.

Two questions indicated further testing is necessary to determine the nature of the interactions. The first question was "How often do you plan meals ahead of time?" For this question, St. Louis participants, indicated that those who participated in Treatment 2 (grocery store tour and classroom education) were significantly more likely to plan meals in advance ( $p=0.005$ ). The second question, "How often do you run out of food before the end of the month?" was significant only in the St. Louis participants. All St. Louis participants, regardless of treatment, indicated that they were less likely to run out of food at the end of the month ( $p=0.000$ ). There was no significant difference for any of the Kansas City participants across all three treatment groups.