Improve in Long-term Household Food Security among Indiana Households with Children did not differ between Rural and Urban Counties after a Supplemental Nutrition Assistance Program-Education Intervention

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THE PROBLEM

Food insecurity—limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable food in socially acceptable ways—is widespread among low-income children and families. Children who experience food insecurity are more likely to be overweight or obese, and may have lower consumption of fruits, vegetables, or other health-promoting foods. Surveys and assessments of food security status have shown that rural households experience a higher prevalence of food insecurity compared to urban households, which is likely due to several factors including disparities in access to food assistance programs, longer distances to food sources, and lower income levels in rural households. To address this disparity, a nutrition education program was designed to improve food security in diverse settings, such as rural and urban counties, and to justify funding by the U.S. Department of Agriculture, Food and Nutrition Service, contract number AG 2020-00001.

The Supplemental Nutrition Assistance Program-Education (SNAP-Ed) is a nutrition education program implemented by SNAP-Ed partners, and it is designed to improve food security through a series of lessons offering education on healthy dietary and lifestyle choices while also encouraging healthy food behavior. The goal of SNAP-Ed is to improve the likelihood that persons eligible for SNAP will make healthy choices within a limited budget and choose active lifestyle consistent with the current Dietary Guidelines for Americans and MyPlate recommendations.

METHODS

To determine the association of rural and urban county household status with long-term (baseline to 1 year) household food security among Indiana households with children, a Supplemental Nutrition Assistance Program-Education (SNAP-Ed) intervention was conducted in Indiana counties. Participants included SNAP-Ed peer professionals who were recruited from SNAP-Ed offices, food pantries, schools, etc. Study and intervention design, follow-up and recruitment process, eligibility criteria, intervention materials, and data collection tools were consistent with the SNAP-Ed and SNAP-Ed evaluation guidelines.

RESULTS

Participants differed between treatment groups for household employment and household participation in food assistance programs. These characteristics were included as covariates to adjust the mixed multiple linear regression models in Table 2 and Table 3. For all food security status indicators, the intervention status did not have a significant difference in distribution among the treatment groups.

The Bland-Altman analysis showed a random distribution of the data around the 0 line for SNAP-Ed participants in Indiana SNAP-Ed participant households. Furthermore, the results indicated that SNAP-Ed may be an effective curriculum because it provides education to maximize nutrition knowledge and improve food security in Indiana SNAP-Ed participant households.

CONCLUSION

Rural or urban county classification status was not significantly associated with change in food security status over time in intervention group participants compared with control group participants from baseline to 1 year follow-up assessment in Indiana SNAP-Ed participant households.

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In this study, a total of 2,967 household food security assessments were included in the analysis for the current study. Data analysis was conducted using SAS 9.4.