

8-1-2004

Super Nutrition Activity Program

Barbara Brown

Oklahoma State University, bbrown@okstate.edu

Janice Hermann

Oklahoma State University, jrher@okstate.edu



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Recommended Citation

Brown, B., & Hermann, J. (2004). Super Nutrition Activity Program. *The Journal of Extension*, 42(4), Article 18. <https://tigerprints.clemson.edu/joe/vol42/iss4/18>

This Ideas at Work is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.



August 2004 // Volume 42 // Number 4 // Ideas at Work // 4IAW1



PREVIOUS
ARTICLE



ISSUE
CONTENTS



NEXT
ARTICLE



Super Nutrition Activity Program

Abstract

Children's health, especially related to nutrition, food safety, and lack of physical activity, has become a national priority. The Oklahoma Cooperative Extension Service Super Nutrition Activity Program (SNAP) was designed to increase knowledge and application of proper nutrition, food safety, and physical activity behaviors among children, grades 3-5. The SNAP program was effective in improving school-age children, grades 3-5, total SNAP Check scores and individual question scores.

Barbara Brown

Food Specialist

bbrown@okstate.edu

Janice Hermann

Nutrition Specialist

jrher@okstate.edu

Oklahoma Cooperative Extension Service
Oklahoma State University
Stillwater, Oklahoma

Introduction

Children's health, especially related to nutrition, food safety, and lack of physical activity, is a national priority. Nationwide surveys indicate children are doing poorly in meeting the Dietary Guidelines for Americans. Total fat intake as a percent of total calories has decreased, primarily due to increased carbohydrate intake, not decreased fat. Diets of the majority of children do not meet recommendations for calcium or fruits and vegetables. Eating patterns have changed, with increased between-meal snacks and meals eaten away from home (Lin, Guthrie, & Frazao, 2001; Johnson, 2000).

The 1993 outbreak of *E. coli* O157:H7 attributed to undercooked hamburgers sickened hundreds and was responsible for four deaths. *E. coli* O157:H7 is destroyed when ground beef is cooked to an internal temperature of 160°F (71°C). A thermometer is crucial in determining doneness. Research indicates some patties may prematurely brown before a safe internal temperature has been reached while some cooked to 160°F or above may remain pink inside (USDA, 1998). Color alone is not a reliable indicator of ground beef safety. But the final line of defense for children may be checking color prior to eating.

Lack of physical activity is a major health concern. Participation in physical activities among children declines with age. Contributing to low physical activity levels may be increased participation in sedentary activities, most notably use of electronic media (French, Story, & Jeffery, 2001). Poor eating habits and lack of physical activity may be exacerbating the trend toward increasing obesity. Childhood obesity increases risk of chronic diseases. About 60% of overweight children ages 5 to 10 have one or more risk factors associated with chronic diseases (Gorton, 2000).

Objective

The Oklahoma Cooperative Extension Service developed and evaluated an education program for children, grades 3-5, titled "Super Nutrition Activity Program" (SNAP). The objective was to

increase knowledge and application of nutrition, food safety, and physical activity behaviors among children. This project was approved by the Oklahoma State University Institutional Review Board for Human Subjects.

Intervention

The SNAP curriculum contained 13 lessons on nutrition, food safety, and physical activity. Each lesson contained a "super message," "SNAPpy Points," background information, lesson opening points, lesson discussion points, activities for younger and older children, and a take-home page to reinforce the message. Children received SNAP stickers for each lesson they completed, which they could put on a "SNAP To Good Health" passport card.

The SNAP program was implemented with children, grades 3-5, in nine Oklahoma counties. Demographic data was collected on gender and grade level. Classes were held in school classrooms, after school programs, and 4-H clubs. The program lasted six to 13 weeks. Oklahoma County Extension Educators served as teachers for the program. They attended in-service training on conducting and evaluating the SNAP program.

Evaluation

The impact of the SNAP program on children's nutrition, food safety, and physical activity behaviors was evaluated using a SNAP Check questionnaire. The SNAP Check questionnaire consisted of 10 questions using a Likert scale format of "no"=1, "sometimes"=2, and "yes"=3. Children were asked to mark the statement that best represented their behavior. Questions were read by the teacher to limit problems resulting from lack of reading ability. The SNAP Check score was the total score from all questions. Test-retest reliability was evaluated by 32 school-age children, grades 3-5, $r = 0.94$.

A pre-test, post-test design was used to evaluate SNAP. Children completed the SNAP Check questionnaire prior to receiving any education using the SNAP curriculum and after completing the SNAP program. Pre- and post-total SNAP Check scores and individual question scores were analyzed using the Statistical Analysis System (SAS) General Linear Modules and least squared means procedures. Significance level was set at $p \leq 0.05$.

A total of 176 children, grades 3-5, participated, 75 boys and 101 girls. After completing the program, total SNAP Check scores significantly increased, with 64% of children increasing their total score. Significant increases were observed for individual question scores, including "I eat bread or grain foods every day"; "I drink milk every day"; "I eat fruits every day"; "When I am thirsty, I drink water"; "Nutrition food labels help me to pick foods to eat"; and "I check to see my hamburger is brown all the way through before I eat it."

Although not significant, increases were also observed for individual question scores, including "I eat something before school starts"; "I wash my hands before I eat"; "I eat vegetables every day"; and "Every day I do some exercise like running, biking, swimming, playing a sport or other physical activity."

Implications

The Oklahoma Cooperative Extension Service SNAP program was effective in improving school-age children, grades 3-5, total SNAP Check scores and individual question scores. Implications for the future include addition emphasis on food safety and hand washing, using tools such as the Glo-germ materials. In addition, further research is needed to evaluate children's perception of physical activity.

References

- French, S. A., Story, M., & Jeffery, R. W. (2001). Environmental influences on eating and physical activity. *Annual Review of Public Health, 22*,309-335.
- Gorton, K. (2000). ADA leads way in putting children back on the road to good health. *Journal of the American Dietetic Association, 00*, 1012.
- Johnson, R. K. (2000). Changing eating and physical activity patterns of US children. *Proceedings of the Nutrition Society, 59*, 295-301.
- Lin, B., Guthrie, J., & Frazao, E. (2001). American children's diets not making the grade. *Food Review, 24*, 8-17.
- USDA. (1998). An FSIS/ARS study: Premature browning of cooked ground beef. Available at: <http://www.fsis.usda.gov/OPHS/prebrown.htm>

done only with prior electronic or written permission of the [Journal Editorial Office, joe-ed@joe.org](#).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)