P19 (continued)

uses the Dietary Guidelines and MyPlate as the foundation for basic nutrition.

Description of Program Intervention: The program includes experiential skill acquisition through hands-on cooking classes, which includes meal preparation, grocery shopping, food budgeting, and nutrition. Participants receive low-cost recipes and free groceries after each class to replicate the recipes at home.

Evaluation: Post program evaluation results at the end of the six-week program indicated increased skills and confidence in participant's ability to plan and prepare healthy meals. A survey of 150 participants indicated improvement in cooking skills, increase in vegetable and fruit consumption, increase in whole grains, lean meat, chicken or fish consumption, and increase in the number of people who reported making meals that include at least 3 food groups.

Conclusions and Implications: Experiential cooking programs were an effective method of empowering low-income families with knowledge and skills to prepare healthy and affordable meals.

Funding: Supplemental Nutrition Assistance Program - Education

Additional Funding: Share Our Strength

P20 A Nutrition Education Intervention on Achieving Healthy Weights Among Adolescents for Nutrition Educators for Low-Income Families

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Objective: To develop, implement, and test a nutrition education intervention for low-income families related to adolescent obesity.

Target Audience: Nutrition educators for low-income families.

Theory, Prior Research, Rationale: Adolescents residing in poorer counties of Georgia are nearly twice as likely to become obese. The University of Georgia Cooperative Extension has not developed nutrition education interventions related to adolescent obesity in Georgia, so such a program was needed.

Description: A pilot nutrition education intervention was developed, implemented, and tested to address target behaviors for obesity prevention in adolescents outlined by the American Academy of Pediatrics. The curriculum incorporated a variety of interactive learning experiences including hands-on activities, group work, videos, a food demonstration, and PowerPoint presentations. A convenience sample of 10 UGA Cooperative Extension providers (mean age: 56.3 ± 7.0 , 20% African American, 30% Hispanic) were recruited. The participants attended two five-hour workshops over a two-week period. The participants completed a pre- and

post-test assessing knowledge and confidence about adolescent obesity.

Evaluation: Participants reported significantly increased knowledge (mean $\pm$ SD, 8.00 ± 2.12 vs. 9.00 ± 2.31 , $p = 0.016$) and confidence significantly increased in 3 of 4 topics ($p < 0.05$). All participants were highly satisfied with the interactive style of the intervention.

Conclusions and Implications: Knowledge and confidence of the Cooperative Extension providers significantly increased. This pilot study may serve as a model for adolescent obesity interventions for nutrition educators of low-income families in Georgia.

Funding: None

P21 Withdrawn

P22 Validation of Two Measures of Fruit and Vegetable Intake in Third-Grade Students

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Objective: Brief dietary instruments are used to assess fruit and vegetable intakes in adults because they are inexpensive and easy to administer compared other methods. However, use with young children without prior validation may compromise accuracy. Therefore, the purpose of this study was to validate two brief methods to estimate fruit and vegetable intakes among 3rd-grade children.

Study Design, Setting, Participants, and Intervention: Two brief instruments were used to estimate intake and frequency with 3rd-grade students ($n=108$) in one school in Minneapolis in 2012/2013. These included a single retrospective question each about usual fruit and usual vegetable intake illustrated with measuring cup pictures to estimate amounts (FVQ) and a food record based on A Day in the Life questionnaire (DILQ) that measures intake frequency. Three 24-hour recalls were conducted using Nutrition Data System for Research, the first on the same day the questionnaires were completed and the remaining several days later. Two weekday and 1 weekend day recalls were collected by trained interviewers.

Outcome, Measures and Analysis: An algorithm derived from NHANES data was used to convert frequencies assessed in the DILQ into amounts. Deattenuated Pearson correlation coefficients were used to compare intakes assessed with the 24-hr recalls and the FVQ and DILQ.

Results: Correlations were low between 24-hour recall and FVQ results (0.08 for total vegetable intake, 0.20 for

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total fruit and vegetable intake). However, fruit consumption was moderately correlated (0.33). Similar results were observed when recall results were compared with DILQ findings.

Conclusions and Implications: While agreement was low, these instruments may be more useful for measuring fruit than vegetable intake in 3rd-grade students.

Funding: Supplemental Nutrition Assistance Program - Education

P23 After-School Nutrition Clubs Increase Fruit and Vegetable Preference Among Youth Participants

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Objective: To utilize after-school Nutrition Clubs to help youth experience new foods, develop cooking skills, and become more accepting of a wider variety of foods.

Target Audience: Elementary and middle school youth aged 8-14 years.

Theory, Prior Research, Rationale: Social cognitive theory was used for program development.

Description: During the 2012-2013 school year, 7 after-school Nutrition Clubs were created to deliver nutrition education and help students develop cooking skills, provide opportunities to experience new foods, and become accepting of a wider variety of foods.

Evaluation: Surveys assessing student consumption and preference of fruits, vegetables, dairy, and whole grains, and student efficacy in choosing and preparing fruits and vegetables, were administered at the beginning of the first club session and at the final club session. A total of 80 matched pairs of pre/post surveys were analyzed for changes.

Conclusions and Implications: A total of 104 youth were reached through 7 after-school Nutrition Clubs. Club length ranged from 7-16 sessions, with students receiving an average of 13.6 hours of nutrition education. Students reported that on the day prior to survey administration, they doubled the number of fruits eaten from 1 fruit at the beginning, to 2 fruits at the conclusion of the program. Preference increased significantly for 8 of 25 food items assessed: squash, peaches, pears, oranges, bananas, brown breads, brown rice, and oatmeal. When grouped, preference increased significantly for fruits, vegetables, and whole grains, from "like a little" to "like a lot." Students reported a significant increase in their ability to prepare their favorite fruits and vegetables at home.

Funding: Supplemental Nutrition Assistance Program - Education

Additional Funding: Maryland Department of Human Resources and the University of Maryland

P24 Application of the Social Cognitive Theory to the Design and Evaluation of a Community-based Diabetes Education Program

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Objective: Create and evaluate a diabetes education program modeled after the "Dining with Diabetes" curriculum utilizing Social Cognitive Theory (SCT).

Target Audience: People with diabetes or their caregivers.

Theory, Prior Research, Rationale: Social Cognitive Theory.

Description: "Dining with Diabetes" is a community-based diabetes education program that originated from West Virginia Extension. University of Illinois Extension implemented the program in 2000 and evaluation indicated significant improvements in participant knowledge and self-efficacy. Since then, participant feedback indicated that more information regarding carbohydrate counting, dining out, physical activity, and managing doctor's visits is needed. Additionally, instructors noted that SCT mediators of behavior change were not fully addressed in the design of the original intervention. Therefore, the program was redesigned to incorporate participant feedback and target behavioral mediators. The new program consisted of four, 3-hour sessions that included four major goals: managing meal plans, managing diabetes-related complications, meal preparation, and physical activity. The evaluation included 20 questions measuring outcome expectancies, self-efficacy, and behavior change related to the four major goals.

Evaluation: 238 participants completed the new program. Student's t-test of the summed score was significant (Pre-mean 53.19 + 11.02, Post-mean 63.84 + 10.09, $p < .001$). Self-efficacy and behaviors for meal planning and preparation showed the most improvement. Areas of least improvement were related to outcome expectancies and self-efficacy for doctors' visits, and physical activity behavior.

Conclusions and Implications: The redesigned diabetes education program indicated significant overall improvements for the participants. Self-efficacy and behaviors related to meal planning and preparation improved the most. Revisions for managing health complications and physical activity should be considered.

Funding: None

P25 Promotora Impact on Participation in Community Nutrition Programs in New Mexico

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