P11 (continued)

Study Design, Setting, Participants, Intervention:

Four photovoice projects (2 urban and 2 rural) with youth ages 10-17 (n=48) were conducted in community centers and afterschool programs, examining the food environment in and around the park and recreation centers. Students took photos and later discussed photos as a group, identifying overall themes they wished to address with community key decision makers. Questionnaires were administered with the youth before and after the photovoice projects.

Outcome Measures and Analysis: Questionnaires assessed youth's perceptions of parks and community centers, food and nutrition, and factors that influence their choices. Paired t-tests were used to examine changes in youth's perceptions.

Results: After participation in the photovoice project, youth perceived greater importance of parks/community centers for health; greater desire to choose healthy food and drinks at parks/community centers; less satisfaction with the current snack choices offered; and greater recognition of the influence of ads.

Conclusions and Implications: Findings from this study demonstrate that photovoice projects examining park food environments not only help give voice to youth that may not typically be included in decision-making, but also increase perceived importance of healthy food environments in parks.

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P12 Effect of Nutrition Interventions on BMI in Youth Attending After-School Programs: A Meta-Analysis

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Objective: To evaluate the effectiveness of nutrition interventions in reducing Body Mass Index (BMI) for youth participating in after-school programs conducted solely at school.

Design, Setting, Participants: Overweight and obesity in youth are problematic. After-school nutrition interventions could be beneficial for addressing youth weight issues; however, the effectiveness of these programs on reducing BMI is unclear thus a meta-analysis was performed.

Outcome Measures and Analysis: Nine databases (e.g. CINAHL, EBSCO, PubMed, etc.) were searched with terms such as "Diet," "Nutrition," "Body Mass Index," and "After-Nine databases (e.g. CINAHL, EBSCO, PubMed, etc.) were searched with terms such as "Diet," "Nutrition," "Body Mass Index," and "After-School." The mean and standard deviation of BMI change scores were extracted to calculate effect size (ESs). A random effect model was used to calculate an overall ES and 95% confidence interval (CI). Moderator analyses were conducted for parent

involvement (yes/no) and type of intervention (nutrition only, nutrition + physical activity, nutrition + physical activity + other) on overall ES. Heterogeneity was evaluated using Cochran's Q statistics. Comprehensive Meta-Analysis (2.2) software was used to conduct ES calculation and moderator analyses.

Results: The searches yielded 1702 articles. After initial screening, 111 potentially relevant studies were fully reviewed. Seventeen studies involving 1,716 participants were included and 18 ESs were calculated. Overall mean ES was significant (ES = -0.156, CI = -0.29, -0.02) which indicated that school-based, after-school nutrition intervention programs were effective in reducing BMI. Moderator analyses indicated that the mean ES was influenced by type of intervention and parental involvement, $Q_{\text{between}} = 16.26$, $df = 2$, $p < .001$ and $Q_{\text{between}} = 4.56$, $df = 1$, $p = .033$, respectively.

Conclusion and Implications: This meta-analysis indicated that nutrition interventions in after-school, school-based settings are effective in reducing BMI among youth.

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P13 Efficacy of the iCook 4-H Dissemination Using Outcome and Fidelity of Implementation Measures

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Objective: Test the efficacy of disseminating the iCook 4-H program with youth-adult dyads a following two-year multistate research study for childhood obesity prevention.

Study Design, Setting, Participants, Intervention: Control (n=63)/treatment (n=75), intervention pre-post-design. An experiential learning curriculum with eight bi-weekly sessions and at-home activities was implemented in community settings, primarily by Extension educators (n=12), with minimal researcher assistance. Participants were youth (mean age=9.9±0.6 yr) and their primary meal preparers (mean age=39.4±7.8 yr). Program outcome and fidelity of implementation measures were developed specifically for the curriculum. The youth instrument was 33 items, including scales for cooking skills ($\alpha=0.80$), eating ($\alpha=0.72$), playing ($\alpha=0.69$) and setting goals ($\alpha=0.76$) together. The adult instrument was 22 items, one scale ($\alpha=0.69$), cooking, eating, and playing together. Fidelity measures included meeting objectives, leader effectiveness, and participant engagement and were conducted systematically on 28 of 96 total sessions (29%) by trained evaluators (n=18).

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