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of an essential nutrient from a list of foods and only 28% of responses were correct to questions about dietary guideline recommendations for young children.

Conclusions and Implications: This study indicates early childhood educators may not have the knowledge and skills necessary to positively impact children's nutrition. As recommended by the Institute of Medicine, requiring nutrition coursework in early childhood education programs is essential to assist teachers and childcare providers in teaching and modeling evidenced-based nutrition concepts to young children. How to best support teachers' ongoing nutrition education needs further investigation.

Funding: None

P114 Identification of Best Practices in Nutrition Education for Low-Income Audiences

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Objective: To identify best practices in nutrition education for low-income audiences. Best practices are evidence-based elements or strategies that have shown effectiveness in achieving outcomes in both direct delivery of nutrition education as well as indirect methods, such as social marketing.

Study Design, Setting, Participants, and Intervention: The lead authors and a seven-member expert panel independently generated best practices in nutrition education and then reached consensus. The best practices were confirmed via review of the research literature.

Outcome, Measures and Analysis: Twenty-seven best practices were identified under 5 domains: program design, program delivery, educator characteristics, educator training, and evaluation.

Results: Effectively designed nutrition education programs include the following best practices: a strong theoretical basis, research-based content, emphasis on goal setting, and use of audience-appropriate languages and materials. The program delivery best practices are: use of experiential learning and enhancement items, accommodation of learning styles, inclusion of contacts of appropriate frequency and duration, and maintenance of program fidelity. The best practices related to educators include: expertise in content and teaching methods, an understanding of performance expectations, the ability to relate to the target audience, appropriate initial and ongoing training, and routine observation of teaching. Evaluation should assess program goals and objectives

through the inclusion of formative, process, and outcome components on multiple levels of the Social-Ecological Model addressed by the program.

Conclusions and Implications: The inclusion of best practices in programs leads to stronger outcomes. Best practices are intended for use as program self-assessments and guides for professional development. External program reviewers may also use best practices to assess program strengths.

Funding: USDA FNS, through Interagency Agreement with NIFA

P115 Fidelity of Implementation of a 4-H Program to Promote Culinary Skills and Family Meals for Obesity Prevention: iCook 4-H

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Objective: Evaluate fidelity of implementation (FOI) of the 6-session iCook 4-H intervention curriculum in a 5-state study.

Study Design, Setting, Participants, and Intervention: Curriculum evaluation with a fidelity testing pattern to provide multiple testing of each session across 5 states. The instrument, modified for each session, was designed to capture instructional (e.g. "How involved were youth with...?") and structural (e.g. "Check which program elements were covered") components. Program elements were culinary/activity skills, nutrient focus, family communication, and goal setting. Evaluators (n=18) completed the instrument by observing leaders implementing the 2-hour sessions.

Outcome, Measures and Analysis: Measures included implementation time and percentage of time objectives were met; adequacy of materials provided; and accomplishment of program elements. General descriptive statistics were generated using SPSS.

Results: Evaluators were female and either student researchers (53%) or Cooperative Extension/4-H staff (25%). Mean implementation time of 114 minutes per session was close to the planned time of 120 minutes. When comparing across all sessions, objectives were met 91% of the time and materials provided were adequate 96% of the time. Over the sessions, elements were covered 90% of the time with session 1 having the lowest covered (56%). The mean ratings for youth and adult engagement in sessions were 3.8 ± 0.4 and 3.6 ± 0.4 respectively (score range little engagement=1 to actively engaged=4).

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Conclusions and Implications: Across the 5-states, the iCook intervention was delivered as planned. Testing fidelity is critical in a multistate intervention with numerous session leaders to document how closely the actual implementation is to the intended. Fidelity evaluation helps to correct problems for intervention effectiveness and to explain study findings.

Funding: Agriculture and Food Research Initiative Grant #2012-68001-19605, USDA National Institute of Food and Agriculture, Childhood Obesity Prevention: Integrated Research, Education, and Extension to Prevent Childhood Obesity, A21

P116 Does Future Time Perspective in Life Relate to Health Behaviors Among Japanese Workers?

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Objective: Although relationships between future time perspectives and health behaviors have been reported in adolescents, there are few reports on adults. The objective in this study is to examine whether future time perspective relates to the health behaviors of Japanese workers.

Study Design, Setting, Participants, and Intervention: A cross-sectional questionnaire administered to 4,462 Japanese workers.

Outcome, Measures and Analysis: The subjects were divided into two groups using the median total future time perspective score (Shirai, 1994; five items, five-point Likert scale). The demographic characteristics and health behaviors of the groups were compared using the chi-square test. The relationships between future time perspective and health behaviors were assessed using multivariate logistic regression analysis adjusted for the demographic characteristics. All analyses were conducted by gender.

Results: The study analyzed 2,995 participants (67.1% response rate; 1,182 men, 1,773 women). The high-score group contained more participants who lived with families (men $P<.001$; women $P=.002$) and were married (both men and women $P<.001$); the low-score group contained more individuals aged 40–49 years (men $P=.003$; women $P<.001$). In the high-score group, more men ate breakfast daily ($P=.018$) and exercised regularly ($P<.001$). Nevertheless, only regular physical activity (odds ratio (95% confidence interval) = 1.98 (1.49–2.64) in men was related to future time perspective, adjusted for the demographic characteristics.

Conclusions and Implications: The relationships between future time perspective and health behaviors differed by gender, and regular physical activity was related to future time perspective only in men.

Funding: Japan Society for the Promotion of Science, Grants-in-Aid for Scientific Research.

P117 A Pilot Study to Explore the Correlation Between Parental Nutrition Literacy, BMI, and Child Healthy Eating Index-2010

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Objective: Improving diet quality and weight status of children and parents is important for promoting future health. The purpose of this study was to investigate parental nutrition literacy (PNL) in relation to child Healthy Eating Index-2010 (HEI) and parental body mass index (BMI).

Study Design, Setting, Participants, and Intervention: Forty-six parents of children aged 4–6 years consented to this cross sectional study. PNL was assessed using the Nutrition Literacy Assessment Instrument for Parents (NLAI-P) that contains 42 questions relating to 5 domains of nutrition literacy. Child HEI was determined from the average of two 24-hour dietary recalls. BMI was calculated with standing height and weight.

Outcome, Measures and Analysis: Parental NLAI-P was scored as a combined percent correct. The relationship among parental BMI, parental NLAI-P score, child BMI percentile for age and child HEI were measured by Spearman correlations and linear regression.

Results: Average NLAI-P score was 83.6% (range=64.2–97.6; SD=8.7). Average child HEI was 53.5 (range=31–86; SD=14.1). Child HEI was related to parental NLAI-P score ($r=0.324$, $p=0.03$). Parental BMI, not child BMI percentile for age, had a significant inverse relationship with parental NLAI-P score ($r=-0.456$, $p=0.001$). There was a linear relationship between parental BMI and NLAI-P score ($R^2=0.157$; $p=0.004$). For every 1% increase in parental NLAI-P score, BMI decreased by 0.26.

Conclusions and Implications: This is the first investigation into measured PNL in relation to weight status and child diet quality. Results suggest that lower PNL may be a barrier for parents to build a healthful diet for their child. Larger population studies are needed to confirm this relationship.

Funding: KU Endowment, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Office of Dietary Supplements

P118 Dietary Restraint Scores Associated With Attempting to Lose Weight

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Objective: To determine associations between self-reported eating behaviors and weight status in a large sample of adults.

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