O10 (continued)

evident" that they needed to make permanent dietary changes to maintain long-term health.

Funding: None

O11 Stove to Erythrocyte: Associations Between Fish Preparation Confidence, Fish Intake, and Omega-3 Status in Midlife Adults

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Objective: This study examined whether fish and seafood preparation confidence predicted fish and seafood intake and omega-3 blood levels.

Study Design, Setting, Participants: A cross-sectional survey was conducted in varied locations in five New York State counties. Adults age 50 to 75 were recruited. A full sample of 212 participants volunteered, and a sub-sample of 100 of those 212 provided dried blood spots (DBS). The self-report survey asked about demographics, fish and seafood intake, potential confounding variables, and several Likert-type scales, including fish and seafood preparation confidence.

Outcome Measures and Analysis: Two outcomes were assessed: total fish and seafood intake, measured by food frequency questions, and omega-3 index, analyzed using gas chromatography of DBS. Three sets of linear regressions, controlling for expected confounding variables, assessed: predictors of intake among the full sample; predictors of intake among the DBS subsample; and predictors of the omega-3 index among the DBS subsample.

Results: Higher fish and seafood preparation confidence predicted greater fish and seafood intake. An increase of one point (of five possible points) in preparation confidence scale increased intake by 1.46 ounces per week ($p < 0.01$) in the full sample. Similar regression coefficients occurred for confidence and intake in the DBS subsample. Preparation confidence was not associated with the omega-3 index.

Conclusions and Implications: Fish and seafood preparation confidence may be a potential target for increasing fish and seafood consumption. Increased fish and seafood preparation confidence might be developed through experiential learning opportunities related to food provisioning by nutritionists, culinary educators, paraprofessionals, extension programs, and the food and grocery industries.

Funding: Cornell University: Division of Nutritional Sciences and the Human Ecology Alumni Award Grant

O12 Impact of Exposure to Food Preparation Videos on Performance Indicators Associated with Online WIC Nutrition Education

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Objective: Determine the impact viewing a Health eKitchen (HeK) online video had on key performance indicators (KPIs) associated with WIC online nutrition education.

Study Design, Setting, Participants, Intervention: The website, wichealth.org, is an online nutrition education program used by WIC clients in 30 states. HeK is a wichealth.org feature that provides supplemental video resources focused on food preparation, cooking, and storing. This study involved a retrospective cohort of users with groups defined based on HeK exposure before or after lesson completion.

Outcome Measures and Analysis: A one-way ANOVA compared KPIs among three groups completing a wichealth.org lesson: no videos viewed, video viewed pre-lesson, video viewed post-lesson. A two independent samples t-test between the two groups with HeK views evaluated the direct impact of video on completion of lesson.

Results: A significant group effect existed for all three KPIs investigated based on HeK exposure status. Average link views ($F=1,440.9$, $p < 0.0001$), average link view time ($F=7,301.9$, $p < 0.0001$), and average rate stage of change progressed ($X^2=1,328,522.6$, $p < 0.00001$) demonstrated more positive results for the pre-lesson HeK viewing group. Among the two HeK groups, those that viewed a video prior had more positive significant KPI results.

Conclusions and Implications: Accessing a HeK video prior to completing an online educational session had a significant impact on achieving lesson goals, suggesting the potential benefit of using an application oriented video at the onset of an online nutrition education lesson.

Funding: USDA

O13 The Meaning of Food in Life Scale: Evidence for Links with Healthy Eating, a Positive Relationship to Food, and Established Determinants of Healthy Eating Behavior

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Objective: The Meaning of Food in Life (MFL) construct was recently operationalized for empirical study and a validated MFL assessment questionnaire was created. The current study evaluated how the MFL relates to dietary behaviors, a positive relationship to food, and determinants of healthy eating behavior.

Study Design, Setting, Participants: A questionnaire was administered to two online samples consisting of 151 and 252 American participants.

Outcome Measures and Analysis: Variables assessed included demographics, the MFL, dietary intake, self-

O13 (continued)

efficacy, a positive relationship to food, calorie restriction, and body satisfaction.

Results: All five dimensions of the MFL were significantly and positively associated with fruit and/or vegetable intake, with moral and health showing the greatest associations; moral (fruit $r = .29$, $p < .001$; vegetable $r = .35$, $p < .001$) and health (fruit $r = .35$, $p < .001$; vegetable $r = .40$, $p < .001$). The health, sacred and moral meaning dimensions were significantly and negatively associated with processed snacks and junk food consumption (both $p < .05$), and the moral dimension was significantly and negatively associated with red meat consumption ($p < .01$). The moral, aesthetic and health domain were significantly and positively associated with greater self-efficacy for consuming healthy foods (all $p < .001$). Both the moral and health domains were significantly and positively associated with body satisfaction (both $p < .01$). All five domains of the MFL were significantly and positively associated with a positive relationship to food, and none were associated with calorie restriction.

Conclusions and Implications: These data suggest that the MFL construct has clinical health relevance in the form of promoting healthier dietary behavior and a positive relationship to food.

Funding: None

O14 Assessment of Impact on Objective Biometric Outcomes of the Eating Smart • Being Active Curriculum

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Objective: To measure the impact of the Eating Smart • Being Active (ESBA) curriculum on objective biometric health outcomes.

Design, Settings, Participants: A longitudinal data analysis using pre-post intervention and six-month follow-up data from adults ($n=61$) completing Colorado EFNEP classes using the Eating Smart • Being Active curriculum during 2016-2017.

Outcome Measures and Analysis: Biometric data collected included height and weight for Body Mass Index (BMI), Systolic and Diastolic Blood Pressure (SBP/DBP), and Hemoglobin A1c (HbA1C). One tail paired t-tests were used pre-post and repeated measures ANOVA for pre, post, follow-up analyses. Significance was set at $p < 0.05$.

Results: All biometric measures experienced an unadjusted mean decline from pre to post, however only DBP and HbA1C were significant. Mean weight declined 0.95kg ($p = 0.17$), mean BMI declined 0.24 kg/m² ($p = 0.25$), mean SBP declined 0.90 mmHg ($p = 0.10$), mean DBP declined 1.72 mmHg ($p=0.01$) and mean HbA1c

declined 0.11 percent ($p = 0.04$). Six-month follow-up measures are in progress and will be included in the analysis in May 2017.

Conclusions and Implications: This pilot study demonstrates reductions in objective biometric outcomes associated with participation in an EFNEP intervention using the widely adopted Eating Smart • Being Active curriculum, notably for blood pressure and blood glucose levels. The positive trends in biometric measures support programmatic conclusions based on participants' self-reported behavior changes and provide initial objective evidence that EFNEP might positively affect health status. Further research is needed to improve evidence for causality.

Funding: NIFA

O15 Development and Validation of a Questionnaire to Assess Fruit and Vegetable (FV) Consumption at School Lunch

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Objective: Develop and validate a modifiable, paper-and-pencil questionnaire assessing FV consumption at school lunch.

Design, Settings, Participants: Five phase validation study, in which the questionnaire was iteratively modified. The setting was 23 public elementary schools from eight states in the U.S. (70% urban; 77% free/reduced price lunch eligible) participating in the National School Lunch Program. Second and 3rd graders ($n=41, 62, 71, 63, 976$ for Phases 1-5, respectively) participated.

Outcome Measures and Analysis: The Fruit and Vegetable Recall Questionnaire (FVRQ), adapted from Paxton et al (2011), was administered within the classroom directly after lunch and assessed FV items taken and amounts consumed. FVs were tailored based on lunch that day. A digital photography method was the referent; students' trays were photographed in the cafeteria before and after eating and photos were visually analyzed. Agreement between methods was calculated as rates of matches, intrusions, and omissions for each Phase.

Results: Questionnaire modifications included changing page orientation, increasing font size, reducing response options, using smiley faces for scales of measurement, and adding a training page. The match rate for FV items taken was high (Phases 1-5: 82%, 82%, 91%, 92%, 89%, respectively), with intrusions more frequent than omissions. For amounts eaten, match rates were moderate, but improved throughout Phases 1-5 (68%, 67%, 84%, 83%, 76%); students more frequently overestimated than underestimated consumption. Second and third grade students had similar match rates for items taken (87% vs. 87%) and amounts consumed (72% vs. 75%).

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