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cheese and fish on days when they were not consuming meat. The top three reasons reported by students for eating meat more frequently (four or more days per week) were taste good, convenient, and fits well with their meals. Among participants who reported low levels consuming meat three or fewer days per week, the most commonly cited reasons were affordable, used to it, convenient and better for the environment. Most participants agree that human consumption patterns affect environmental sustainability, but many fail to connect this to individual-level meat consumption trends. Most participants report moderate to high levels of meat consumption, and most are unwilling to reduce their individual consumption rates. These trends occur more strongly in males than in females.

Conclusions and Implications: A gender difference exists in both attitudes and behaviors related to meat consumption. Educational efforts should be gender specific.

Funding: None.

Behavior and Education Theory

P20 An M-Health Intervention to Improve Physical Activity and Monitoring Sugar-Sweetened-Beverages (SSB) in College Students

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Objective: Determine the efficacy and the effectiveness of a mobile health (m-Health) intervention app on specific lifestyle behaviors.

Target Audience: College students from Texas A&M University, aged 18–30 years old.

Theory, Prior Research, Rationale: The Capability, Opportunity, Motivation, Behavior (COM-B) framework hypothesizes that an interaction between three components (capability, opportunity, and motivation) influence behavior and can provide explanations for why a recommended behavior is not undertaken. In this trial, education, training, and modeling will be used to address the psychological capabilities and reflective motivation of the students, in order to increase walking behavior and improve specific life style behaviors.

Description: MyFitnessPal (MFP) is one of the most popular publicly available apps for weight loss used. MFP incorporates elements of social cognitive theory, including self-monitoring, goal setting, and feedback. Using the Pacer Pedometer app, the intervention group receives physical activity goals (10,000 step/day). The researcher will encourage this group to use the app to monitor their steps and obtain feedback. The intervention group will be given a primary goal of achieving the SSBs recommendation of (≤ 240 mL SSBs/d (≤ 8 fl oz SSB/d)). The researcher will encourage this group to use the app to monitor their SSBs intake and obtain feedback.

Evaluation: Feedback and tracking of step counts and calories expended and daily caloric intake/ fluid ounces

of SSB consumption will be assessed across the 4 time points. Weight status and body fat percentage will be obtained at the end of a 12-week of intervention. Self-efficacy will be assessed using (McAuley, Lox, & Duncan, 1993) self-efficacy scale.

Conclusions and Implications: Mobile-health tracking apps have a potential effect on preventative health care measures including increased physical activity, improvement in dietary self-monitoring, and beneficial dietary behavioral change. Applying health behavior change strategies (e.g. goal setting, self-monitoring, and performance feedback) will enhance health behavior changes across different population and setting.

Funding: None.

P21 Associations Between Role Modeling Vegetable Intake by Latino Fathers and Child Vegetable Intake

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Background (Background, Rationale, Prior Research, and/or Theory): Role modeling by Latino fathers may influence children's vegetable intake, but reports of associations between role modeling and objective measures of child vegetable intake are limited.

Objective: To determine associations between father- and child-reported frequencies of paternal vegetable role modeling, skin carotenoid scores, and vegetable intake.

Study Design, Setting, Participants, Intervention: Latino fathers and youth 10–14 years ($n = 35$ dyads) reported their own frequency of vegetable intake (four food frequency items), perceived paternal role modeling behaviors for vegetable intake (four items), and had skin carotenoid levels assessed using a Resonance Raman Spectroscopy device to objectively reflect vegetable intake. Mean age was 39 and 11 for fathers and youth, respectively. About half of youth were boys (57%).

Outcome Measures and Analysis: Correlation analyses were used to determine unadjusted relationships between father- and child-reported frequencies of paternal vegetable role modeling, father and child skin carotenoid scores, and father and child vegetable intake.

Results: The child's reported frequency of their father modeling vegetable intake was correlated with child vegetable intake as assessed with food frequency questions ($r = 0.474$, $P = .005$), but not with skin carotenoid scores. Fathers' reported frequency of modeling vegetable intake for their child was only marginally correlated with fathers' vegetable intake ($r = 0.347$, $P = .071$). Child vegetable intake was correlated with child skin carotenoid scores ($r = 0.373$, $P = .027$), whereas fathers' vegetable intake was only

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marginally correlated with their child's skin carotenoid scores ($r = 0.350$, $P = .063$).

Conclusions and Implications: Children's perception of the frequency of paternal role modeling behaviors may be associated with children's vegetable intake as assessed by food frequency questions. However, further examination is needed to clarify the association between paternal modeling and objectively measured vegetable intake.

Funding: USDA.

P22 Children Residing in Low-Income Households Report They Like a Wide Variety of Vegetables

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Background (Background, Rationale, Prior Research, and/or Theory): Liking of vegetables is an important precursor of intake, yet limited research exists on liking of a wide variety of vegetables among low-income children.

Objective: To measure liking of 35 vegetable types among a racially and ethnically diverse population of 9–12 year old low-income children.

Study Design, Setting, Participants, Intervention: Baseline data combined from two separate intervention studies were analyzed. Participants ($n = 149$) were children living in the Minneapolis-St. Paul area from diverse racial and ethnic backgrounds: Black/African American (38%), other (28%) (e.g. Hispanic ethnicity), White (19%), Mixed race (12%), and Asian (3%). Eligibility criteria included qualifying for public assistance (e.g. reduced/free school lunch, SNAP). Children were asked the following questions about each of 35 vegetables commonly consumed by the study population: "Have you ever tried (name of vegetable?)"? If they answered "yes," they rated their liking on a 10-point scale (1 - "Hate it" to 5 - "It's okay" to 10 - "Love it"). If they answered "no," they were asked about ever trying the next vegetable.

Outcome Measures and Analysis: Mean liking ratings were calculated for each of the 35 vegetables. A rating ≥ 5 indicated the child found the vegetable acceptable. A rating < 5 indicated the child found the vegetable unacceptable. The numbers of children that found each vegetable acceptable or unacceptable were also tabulated.

Results: Vegetables were generally liked (mean over all vegetables = 6.9). Corn was the most liked vegetable (9.1), followed by potatoes (8.5), lettuce (8.3), and carrots (8.2). Artichoke was the least liked vegetable (4.6), followed by onion and (both 4.9) and beets. For 34 of the 35 vegetables, more than 50% of children who tried them,

considered them acceptable. The most tried vegetables ($>90\%$ of children had tried them) were the most liked vegetables (>7.0 mean liking).

Conclusions and Implications: Understanding that children like a wide variety of vegetables may help inform nutrition education efforts to increase child vegetable intake.

Funding: USDA.

P23 Factors Predicting Uptake of Farmers' Market Incentives Program

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Background (Background, Rationale, Prior Research, and/or Theory): There is recent growth in the number of farmers' markets (FM) redeeming Supplementary Nutrition Assistant Program (SNAP) benefits and different groups offering monetary incentives to help improve fresh produce access and health outcome of the low-income population. However, lack of awareness of such programs has been identified among barriers to the uptake among Supplementary Nutrition Assistant Program (SNAP) recipients.

Objective: This study investigated factors associated with uptake of Double-up Food Bucks (DUFb) program after creating awareness of neighboring DUFb participating FM among SNAP recipients.

Study Design, Setting, Participants, Intervention: The study design was a longitudinal repeated-measure design of SNAP recipients ($N = 212$) who reside in neighborhoods with FM that accept SNAP benefits.

Outcome Measures and Analysis: Data were obtained through phone survey at baseline and two follow-ups. Logistic regression analysis was conducted on the use of DUFb at any time point with predictor variables, such as car ownership, travel time, fruit and vegetable (FV) intake at baseline, shopping with SNAP benefit at FM, and participation in other food assistance programs. Socio-demographic variables were treated as covariates. Significance was set at $P < .05$.

Results: The result show that car ownership ($OR = 5.51$; $P = .04$), fruit and vegetable intake at baseline ($OR = 1.41$; $P = .01$), shopping with SNAP benefit at FM ($OR = 6.11$; $P < .01$), annual income less than \$20,000 ($OR = 0.14$; $P = .03$), and number of children ($OR = 0.45$; $P < .01$) were factors predicting the uptake of DUFb program.

Conclusions and Implications: In addition to targeting low-income families with children and those with actual low FV intake to encourage them to shop with their SNAP benefit at FM; our findings suggest that policies and interventions that will improve transportation access to healthier food options may be helpful in increasing uptake of the program.

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