

O26 (continued)

text message content, tone, key messages, frequency, and graphics. The complementary theories of the Health Belief Model and Adult Learning Theory supported the design and evaluation of the texting intervention.

Target Audience: The target audience for the text message intervention were SNAP eligible adults in Georgia.

Program Description: Participants received between 2-3 text messages per week over a six-week period in July-August of 2020 and 2021 that encouraged drinking more water and less SSBs. The 2021 intervention was part of a comprehensive Social Marketing campaign focusing on healthy beverages.

Evaluation Methods: Qualitative focus groups and interviews were conducted virtually with participants (n = 23) and a post-intervention online survey (n = 38) was administered to assess the program's impact on participants' consumption of more water and less SSBs and glean feedback to inform development of the campaign.

Results: There was an overall positive reaction to the texting campaigns, and participants reported sharing texts with family and friends. Text messages related to fruit-infused water recipes, a urine hydration check-in and related graphics were highly rated. Suggested changes included adding more detail to recipes, extending campaign length, and a desire for more connection to community and focus on overall well-being as it relates to drinking more water and less SSBs. The majority of texting participants reported that they set a goal to drink fewer sugary beverages (89.5%), and they drank fewer sugary drinks (76.3%) due to texts.

Conclusions: Text message interventions to promote drinking more water and less SSBs are a feasible and effective way to offer healthy beverage education at a distance with low-income audiences.

Funding: USDA SNAP-Ed.

O27 Pilot Testing of a Father-Focused Childhood Obesity Prevention Mobile Phone App

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Background: Mobile phones are an increasingly important platform to deliver broad-reach, health-related interventions. Yet, there are limited mHealth tools available to support father-focused obesity prevention in preschool-aged children.

Objective: This study aimed to determine fathers' perceptions of an mHealth application including nutrition and health-related content and features. The development of this app prototype was based on findings from a previous

phase of interviews with low-income fathers of preschool-age children.

Study Design, Setting, Participants: Low-income fathers (n = 25) of preschool-aged children were individually interviewed by a trained research assistant during a two-phase iterative project using an app prototype (4Fathers: Fathers, Food, and Fitness) and a semi-structured interview script. Questions were based on constructs from the Technology Acceptance Model and Social Cognitive Theory.

Measurable Outcome/Analysis: Interviews were audio-recorded, transcribed verbatim, and coded by two researchers using an inductive thematic approach. Descriptive statistics were derived from a demographic questionnaire.

Results: Fathers were, on average, 35 years old, and the majority were non-White (73%) and non-Hispanic (88%), with more than half having a college degree (57%). Most of the fathers indicated that the main content topics (e.g., fatherhood, food, fitness) and app features (e.g., Challenges, Dad Connection, Ask an Expert, Goal Setting, Videos) were useful, easy to use, and important to include. Fathers also reported that they would likely use the app, especially the food section and videos, and viewed it as an opportunity to connect with other fathers and their children. Suggested changes included adding a fourth "Fun" section, a chance to earn rewards, incorporating fitness-related demonstration videos, using more realistic photos, and adjusting the color scheme.

Conclusions: A father-focused mobile phone app would be a feasible intervention tool for childhood obesity prevention, but future research is needed to determine the impact on father and child nutrition and related outcomes.

Funding: NIFA.

O28 Validation of a Mobile App for Providing Real-Time Estimates of Portion Size, Energy Intake and MyPlate Food Group Servings

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Background: We developed the PortionSize™ app to provide users with real-time feedback on dietary intake including energy intake (kcal) and compliance to the United States Department of Agriculture (USDA) MyPlate recommendations. PortionSize relies on emerging technology (e.g., augmented reality) for portion size (gram weight) estimation. Currently, PortionSize contains a database of 1150 food items and each food item is linked

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to a food code in the USDA Food and Nutrition Database for Dietary Studies for food group estimates.

Objective: This pilot study assessed the validity of PortionSize for real-time estimates of portion size, energy intake, and MyPlate food group servings (fruits, vegetables, grains, dairy, and protein).

Study Design, Setting, Participants: Adults (4 male, 11 female), aged 18-65 years, were trained, and used PortionSize to quantify food intake from simulated meals, which were covertly weighed, in a laboratory setting in Baton Rouge, LA.

Measurable Outcome/Analysis: Equivalence tests ($\pm 25\%$ equivalence bounds) were performed to compare PortionSize and weigh-back estimates of portion size, energy intake, and food group servings.

Results: PortionSize and weigh-back were equivalent for mean (\pm SD) estimates of portion size (674 ± 223 g vs. 717 ± 207 g, respectively), total fruit servings (0.2 ± 0.3 vs. 0.3 ± 0.4), and total dairy servings (0.4 ± 0.6 vs. 0.6 ± 0.4) (all P values < 0.05). PortionSize and weigh-back estimates were not equivalent for total energy intake (743 ± 328 kcal vs. 659 ± 191 kcal), total vegetable servings (0.9 ± 1.0 vs. 0.6 ± 0.4), total grain servings (1.7 ± 1.7 vs. 1.2 ± 1.1), and total protein servings (3.1 ± 3.6 vs. 2.8 ± 2.9) (all P values > 0.05).

Conclusions: PortionSize shows promise for real-time estimation of portion size, and MyPlate servings of total fruits and total dairy. PortionSize requires further development and validity testing for real-time estimation of total vegetables, total grains, and total protein servings, which may assist with improving the validity of total energy estimates.

Funding: NIH.

Reach Characteristics and Predictors of Virtual Nutrition Education in a Florida SNAP-Ed Implementing Agency During COVID-19

O29 Reach Characteristics and Predictors of Virtual Nutrition Education in a Florida SNAP-Ed Implementing Agency During COVID-19

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Background: As the COVID-19 pandemic continued in FFY21, direct nutrition education programming was offered in-person and virtually through the UF/IFAS Extension Family Nutrition Program (FNP-Florida SNAP-Ed implementing agency) to reach audiences amidst the pandemic's constraints.

Objective: To compare the demographic reach and program activity characteristics (e.g., ethnicity, class size)

across in-person and virtual delivery and identify predictors, including county environmental and social factors (e.g., metro designation, poverty rate), for the use of virtual delivery. This inquiry is useful to examine and guide the equitable and effective delivery of nutrition education that relies on multiple delivery methods.

Study Design, Settings, Participants: All one-time and series completed nutrition education program activities that FNP delivered in FFY21 were included. Mixed-age (youth and adult) activities were excluded due to low frequencies. Final program activity $n = 4,111$, final participant $n = 60,920$.

Measurable Outcome/Analysis: Demographics and activity characteristics were compared using summary and inferential statistics. Predictive model (logistic regression) variables included program activity characteristics (audience age; class size; start date; class setting) and county-level environmental and social variables (metro designation; COVID-19 Pandemic Vulnerability Index; household internet subscriptions; commute times; poverty rates). County variables were coded in relation to Florida county medians.

Results: Significant differences across in-person and virtual delivery methods were observed in multiple demographic and activity characteristic measures (e.g., differences in sex of adult participants ($P < 0.001$, Fisher's Exact Test). All program activity characteristics and county environmental and social variables were significant predictors of the utilization of virtual nutrition education.

Conclusions: Program activity characteristics and county environmental and social factors successfully predicted the use of virtual nutrition education, which may help explain differences in demographics and generally supports a systems approach to comparing delivery methods. Individual participant and nutrition educator preferences for virtual delivery were not accounted for and might explain much of the variability.

Funding: Supplemental Nutrition Assistance Program - Education.

O30 Food Insecurity Rates Among WIC Participants During COVID-19

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Background: The WIC program serves low-income, pregnant and breastfeeding women and children under 5. The COVID-19 pandemic has increased food insecurity and reduced access to healthy foods essential during critical periods of growth and development, thereby increasing health disparities.

Objective: To determine the effects of the COVID-19 pandemic on food insecurity and food access in an online/virtual nutrition education program conducted in

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