Nutrition Across the Life Cycle

P31 Associations Between Snack Food and Demographics, Family Meals and Fruit/Vegetable Intake Among Rural 7- to 10-Year-Old Children

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Background: Snacking is common among children; often including low-nutrient dense foods. Children from rural areas consume fewer fruits and vegetables (FV) than recommended but little is known about their snacking patterns.

Objective: Examine associations between different types of snacks and demographics, family meal frequency and FV intake among rural children.

Study Design, Setting, Participants: Baseline data (2017/2018) were used from 106 parent/child dyads in the NU-HOME randomized controlled trial designed to prevent childhood obesity in rural communities. Children were mostly female (60%), 8.9 years old on average (SD = 104) and 28% of families received economic assistance. Parents reported on their child's snacking via text surveys on 7 random evenings over a 2-week period. Past week family meal frequency and demographics (child age, sex, economic assistance, parent education) were collected via parent survey. FV servings were averaged over 2 dietary recalls.

Measurable Outcome/Analysis: Snack categories were created using factor analysis: Fruit/Yogurt (Fruit, yogurt, 100% juice), Vegetables/Cheese, Granola bars/Chips (including cereal and crackers), and Sugar-sweetened snacks (sugar-sweetened beverages, candy, baked sweets, ice cream). Items in each snack category were summed over 7 days. Correlations and t-tests examined associations between the number of items from each snack category and demographics, family meal frequency, and FV servings.

Results: Children ate a variety of foods for snacks with most being sugar-sweetened snacks ($M = 5.52$, $SD = 3.64$) followed by Fruit/Yogurt ($M = 4.97$, $SD = 3.39$), Granola bars/Chips ($M = 3.67$, $SD = 2.38$), and Vegetables/Cheese ($M = 2.24$, $SD = 2.10$). Children whose families received economic assistance were more likely to eat Fruit/Yogurt snacks (6.2 vs 4.5 snacks; $P = .02$) and less likely to eat Sugar-sweetened snacks (4.2 vs 6.0 snacks; $P = .02$) than those who did not receive economic assistance. Family meal frequency was negatively correlated with Sugar-sweetened snacks ($r = -0.25$; $P = .009$). Servings of FV was positively correlated with Fruit/Yogurt snacks ($r = 0.19$; $P = .046$).

Conclusions: Innovative, real-time snacking data indicate nutrition educators should encourage nutrient-dense

snacks particularly among families who do not regularly eat family meals.

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Food and Nutrition Policy

P32 Evaluation of Multilevel Nutrition Interventions among Urban Clients on Charitable Food Assistance

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Background: Decreased accessibility to farmland and food insecurity in urban areas have expanded the need for emergency food assistance. The culture of food banks is evolving from a system that supplied non-perishable foods for immediate needs to more sustainable initiatives that emphasize access to healthier foods and nutrition education due to the rise of obesity and chronic diseases. Furthermore, minimal evaluation on produce consumption behaviors of underserved clients using resources from local and federal programs has been conducted.

Objective: Evaluate the relationship between usage of federal nutrition programs, local resources, and fresh produce consumption among clients on charitable food assistance.

Study Design, Setting, Participants: A cross-sectional design during Summer 2018 was implemented with 91 respondents (87% African American and 13% other) who met inclusion criteria for socioeconomic status at 5 faith-based and healthcare food pantries and clinics in Washington DC. Subjects completed informed consent, demographics, and the Eating at America's Table survey of fruit and vegetable consumption patterns.

Measurable Outcome/Analysis: R software version 3.5.3 was used for data analysis. Analysis of variance (ANOVA) Fisher Test measured the relationship between number of federal programs used and mean intakes of fresh produce as well as number of local nutrition resources used and mean intakes of fresh produce. ANOVA findings were confirmed via Tukey, Scheffe, and least square difference testing.

Results: Subjects who reported participation in 1 or more federal programs reported higher intakes of fruit, potatoes, non-starchy vegetables, and beans than those who did not ($P < .05$). Subjects who used 1 or more local nutritional resources reported higher intakes of fruit, potatoes, and non-starchy vegetables than those who did not ($P < .05$).

Conclusions: To improve food security and sustainability, urban communities, especially underserved areas, may

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