

Tech Equity and Inclusion in Nutrition Education

001 Optimizing a Theoretical Framework for Virtual Nutrition Education Programs for Adolescents With Autism Spectrum Disorder

Acadia Buro, PhD, CPH, acadia.buro@moffitt.org, Moffitt Cancer Center, 4117 E Fowler Ave, Tampa, FL, 33617; Heewon Gray, PhD, RDN, University of South Florida College of Public Health

Background: Adolescents with autism spectrum disorder (ASD) demonstrate more problematic eating behaviors and unhealthy dietary patterns than their neurotypical peers. As the COVID-19 pandemic has resulted in a continued need for virtual interventions, a tailored framework to guide virtual nutrition education programs for this population is warranted.

Objective: To optimize a theoretical framework based on empirical data from a virtual nutrition education intervention study for adolescents with ASD.

Study Design, Setting, Participants: This is a secondary analysis of qualitative data collected from a pre-post intervention study with 27 adolescents with ASD aged 12-21 years. Six adolescent focus groups (n = 12) and 21 parent interviews were conducted after the intervention.

Measurable Outcome/Analysis: The initial framework based on social cognitive theory (SCT) was applied to a virtual nutrition education intervention, BALANCE (Bringing Adolescent Learners Nutrition and Culinary Education), that consisted of eight weekly sessions. The framework had 6 domains (ASD-related Barriers, SCT Constructs, Environmental Context, Eating Habits, Other Lifestyle Behaviors, and Health Outcomes) and 21 constructs. Focus group and interview data were analyzed for emergent themes, and the framework was refined based on key findings.

Results: Emergent themes that were overlooked in the initial framework development included that adolescents improved 'Self-regulation'; parents particularly liked that children's 'Autonomy and independence' were encouraged; and 'Family support' for healthy eating increased, e.g., parents teaching their children how to prepare food themselves, after participating in BALANCE. The optimized framework included 3 new constructs based on these results: Self-regulation, Autonomy, and Supportive Social Environment, which can be well-explained with self-determination theory (SDT).

Conclusions: The findings suggest that future versions of the BALANCE intervention should incorporate SDT constructs to improve adolescents' intrinsic motivation to make healthy food choices. The optimized framework can be used to inform future virtual nutrition education programs for this population.

Funding: University of South Florida College of Public Health.

002 Social Media Nutrition Education Integrated With a Home Food Delivery Assistance for Low-income Pregnant Women: A Pilot Study

Heewon Gray, PhD, RDN, hgray@usf.edu, University of South Florida College of Public Health, 13201 Bruce B Downs Blvd, MDC 56, Tampa, FL, 33612; Katelyn Gwaltney, BS, University of South Florida College of Public Health; Shikha Darnal, MBBS, University of South Florida College of Public Health; Kayla Jones, MA, Boston University School of Medicine; Naomi Hayes, BS, University of South Florida College of Public Health; Miasia Graham, BS, University of South Florida College of Public Health; Robert Tapales, BS, University of South Florida College of Public Health; Theresa Crocker, PhD, RD, University of South Florida College of Public Health; David Himmelgreen, PhD, University of South Florida, Department of Anthropology

Background: Poor diet quality during pregnancy is associated with adverse health outcomes. As a remote nutrition intervention may benefit pregnant women, especially during the COVID-19 pandemic, we adapted the Cooking Matters curriculum that uses the social cognitive theory and converted it to a social media intervention integrated with healthy pregnancy and food assistance components.

Objective: To examine the feasibility and preliminary effects of a nutrition education intervention implemented through a social media platform for low-income pregnant women.

Study Design, Setting, Participants: One-group pre-test/posttest study. A 6-week nutrition intervention was implemented through a private Facebook group. Cooking ingredients were home-delivered every week by the local food bank. Pregnant women living in low-income neighborhoods of the Hillsborough County, FL who were in their first or second trimester participated in the study (n = 27).

Measurable Outcome/Analysis: Mixed-methods were utilized. Participant engagement was measured weekly with the number of 'likes' on Facebook posts, goal setting, and engagement questions. Outcomes were measured with validated Food Behavior Checklist, and the Perceptions of Meal Planning and Cooking questionnaires. At post-intervention, qualitative semi-structured interviews were conducted. Descriptive statistics and t-tests were used for quantitative data and emergent themes were analyzed for qualitative data.

Results: Cooking demo videos received most frequent 'likes'. Participants significantly decreased sweetened beverage intake ($P = 0.035$); increased using food labels ($P = 0.046$); and improved overall eating habits ($P = 0.015$) after the intervention. Perceptions of meal planning ($P = 0.023$) and shopping and cooking ($P = 0.018$) were significantly improved. Sixteen emergent themes under 6 broad categories were identified from the qualitative data. Participants indicated that they enjoyed the intervention and reported

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