Integrating Technology Into Nutrition Education and Behavior

O25 Evaluation of Commercially Available Infant Feeding Mobile Applications Using the App Quality Evaluation Tool

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Background: Mobile applications (apps) are a promising tool for healthful infant-feeding (IF) promotion among low-income mothers, helping establish healthy dietary patterns in children with high obesity risk. Mothers frequently use health apps, but the quality of existing IF apps is unknown. The App Quality Evaluation Tool (AQEL) is a valid and reliable tool for evaluating nutrition app quality.

Objective: Assess the quality of commercially available IF apps and their appropriateness for a low-income audience using the AQEL.

Study Design, Setting, Participants: Researchers used an iterative process to selected apps for evaluation, only including free apps with breastfeeding and solid foods information. Registered dietitians, lactation consultants, and healthcare providers (n = 10) who work with low-income mothers of infants were recruited to complete the AQEL for each selected app.

Measurable Outcome/Analysis: Five standard AQEL domains (behavior change potential, knowledge support, skill development potential, app functionality, and meeting intended purpose) and two modifiable domains (appropriateness for low-income audience and relevance for those seeking IF information or support). Each domains’ score ranged between 0-10 with score>8 considered high quality. Average scores for each domain were calculated for every app. Interrater reliability was assessed using interclass correlation coefficients (ICC; ICC>0.6 considered good agreement).

Results: Researchers selected six apps for evaluation: WebMD Baby, Baby+, Text4Baby, BabyCenter, What to Expect, and The Bump. All evaluators were white, female, with a bachelor’s degree or higher. Evaluators highly rated app function and app purpose for WebMD Baby (8.0+1.8 and 8.2+0.9) and Baby Center (8.0+2.1 and 8.0+2.6). For other apps, no domains were rated highly. For appropriateness for low-income audiences, no apps were rated highly (range: 5.7-7.7). There was good agreement (ICC>0.6) across evaluators for all apps.

Conclusions: Commercially available IF apps are of limited quality and may not be appropriate for low-income audiences. This indicates a need for developing apps that effectively support healthful IF behaviors among low-income mothers.

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O26 “These Texts Really Changed My Life”: Outcome Evaluation Findings of a Text Message Intervention for Low-Income Adults

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Objective: The objective of this program was to evaluate a SNAP-Ed mobile text message intervention to encourage low-income adults to drink more water and less sugar-sweetened beverages (SSBs).

Use of Theory or Research: A comprehensive needs assessment, including a literature review and qualitative focus groups and interviews with low-income adults informed the development of the intervention, including Continued on page S14
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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.

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