

Submission Id: 5459

Title

Mobile Application to Create Healthy Food Preparation Habits: A Pilot Study

Priority 1 (Research Category)

Research methodology and instrument development

Presenters

Ramya Kumar, BS, Sara Khattab, BA, BS, Lauren Ciszak, MD

Abstract

Context: Over 85% Americans over 65 years of age have at least one chronic health condition. Diet and nutrition significantly impact the prevalence of such diseases. Objective: Our goal is to evaluate the feasibility of the use of the Pursuit mobile application to promote healthier food preparation. This study also aimed to explore changes in food agency, habitual cooking behavior, nutrition knowledge, dietary patterns, readiness to change, and quality of life. Study Design and Analysis: This was an 8 week cohort study. Participants were given access to the Pursuit application and were instructed to prepare a minimum of three meals per week from the recipes available. Feasibility was measured through satisfaction questionnaires administered at the end of the eight-week intervention period. Setting or Data Set: The data set included information from the surveys conducted throughout the study. The setting is YMCA members in Boston, Massachusetts. Population studied: The study included fifteen participants who were over 18, with English proficiency, low-medium level cooking level per Likert scale, and access to a smartphone and stove or microwave.

Intervention/Instrument: The instrument assessed is the Pursuit mobile application. This intervention is novel because it focuses on the application of nutrition intervention by teaching practical food skills using a habit formation model and machine learning delivered virtually to create durable behavior changes. Outcome measures: We defined food agency as a measure of one's ability to adapt cooking practice to overcome challenges. Changes in food agency were assessed using the Cooking and Food Provisioning Action Scale (CAFPAS) scoring system which is a validated tool used to assess behavior change in pre-post cooking interventions in college students, but has not before been used in a generalized population. The CAFPAS score takes into account self efficacy, attitude, and structure. Study data was analyzed using SPSS 28.0. Results: Participants demonstrated a statistically significant improvement in self-efficacy and in their CAFPAS scores. Mean CAFPAS scores improved from 109.38 to 124.77 ($p=0.028$), and mean self efficacy increased from 52.61 to 61.23 ($p=0.0099$). Conclusion: We intend to repeat this protocol to test its feasibility with different populations. Our novel intervention will add to the growing body of evidence regarding lifestyle interventions to mitigate diet related diseases.