Impact of HomeStyles-2 on Sugary Beverage Availability and Intake and Cognitions of Adults Participating in SNAP-Education

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Background: According to the Dietary Guidelines for Americans (DGAs), a healthy dietary pattern includes less than 10% of calories as added sugars, but Americans typically consume over 13% with sugary beverages providing most of those sugars. Federally funded nutrition education programs such as SNAP-Education (SNAP-Ed), are based on the latest DGAs and teach participants how to consume less added sugars.

Objective: To determine whether HomeStyles-2 (HS), a virtual nutrition education program delivered through SNAP-Ed decreases sugary beverage availability and intake and improves related cognitions compared to a SNAP-Ed active control (AC) program.

Study Design, Settings, Participants: Parents/caregivers of children (6 to 11 years) were recruited to participate in SNAP-Ed programming taught by nutrition educators who had been randomized to teach six-lessons of HS (N=102) or AC (N=64) curriculum.

Measurable Outcome/Analysis: Demographic characteristics were analyzed using descriptive statistics. The SNAP-Ed Home Obesogenicity Measure of Environment Survey included questions on sugary beverage availability, intake, and cognitions, which were collected at baseline, post-intervention, and long-term follow up (LTFU) using linear mixed effect models. Differences were evaluated through various fixed effects: baseline value, group, language, gender, race, ethnicity, education, and age.

Results: Participants were 39.6 ± 7.9 years old, primarily female (96.3%), and had overweight or obesity (82.1%). There were no within or between group differences in sugary beverage availability, intake, or cognitions at any time point (p>0.05).

Conclusion: Although these data suggest that HS did not impact sugary beverage availability, intake, or cognitions, the study was not sufficiently powered. COVID negatively impacted recruitment and retention, and the study period was cut short due to SNAP-Ed contractual issues. Future research should include a larger sample to test the impact of HS on sugary beverage availability, intake, and cognitions.

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Inclusiveness in Food Data Sets: Development of a Food Composition Dataset for South Asian Recipes With Focus on Pakistan

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Background: Accurate food composition data is crucial for promoting healthy eating, dietary planning, research and development, food labeling, and public health policy. However, no comprehensive database currently compiles all available food composition data for South Asian recipes, especially Pakistani recipes, highlighting the need for ongoing research.

Objective: The study aims to compile the underrepresented South Asian recipes primarily focusing on Pakistani cuisine by generating a comprehensive dataset on the nutritional profile of popular Pakistani recipes to support public health initiatives, informed food-related policies, and promote inclusiveness.

Study Design, Settings, Participants: A secondary study was conducted to collect South Asian recipes from public sources like RecipeDB, focusing on Pakistani recipe sources from HUM Masala TV and a survey. The study included preliminary results of a survey.

Measurable Outcome/Analysis: The collected data was cleaned, and the serving sizes were predicted using Machine Learning algorithms. The ingredients in each recipe were mapped to their corresponding nutritional content in the USDA database. The resulting food composition data was compiled into a comprehensive dataset.

Results: We have successfully compiled a preliminary dataset of around 5000 recipes, their ingredients, and corresponding nutrition profiles. Although we included recipes from three regions: Pakistan, India, and Bangladesh, most of the focus has been on Pakistan. We plan to continue building the dataset and include more recipes from South Asia, the Middle East, and beyond.

Conclusion: We have started building a comprehensive dataset of South Asian recipes, primarily Pakistani cuisine, providing accurate nutritional information. As the demand for personalized nutrition and health advice grows, artificial intelligence-powered systems can use this dataset to provide more accurate and individualized recommendations. Furthermore, this dataset can be used to develop applications that can automate the process of tracking diet for South Asians catering to sustainability and adaptability.

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