Homestyles-2 Nutrition Education Curriculum Improves Aspects of Mental Health of Parents/Caregivers of Children Ages 6 to 11

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**Background:** Research suggests that dietary quality has an impact on mental health. Consuming a variety of foods from all the food groups provides nutrients needed for optimal brain function. Federally funded nutrition education programs, such as the Supplemental Nutrition Assistance Program-Education (SNAP-Ed), provide nutrition education for families with low income, which may also have an impact on mental health.

**Objective:** To determine whether Homestyles-2 (HS), a virtual nutrition education program for parents/caregivers of children 6-11 years, improves the mental health (emotional eating, quality of life (QoL), and depressive symptoms) of participants compared to those in a virtual attention control (AC).

**Study Design, Settings, Participants:** This cluster randomized trial included six virtual lessons taught by SNAP-Ed nutrition educators who recruited and taught participants using either the HS (N=102) or AC (N=64) curriculum. The SNAP-Ed Home Obesogenicity Measure of Environment Survey was used to determine changes in mental health where decreases in values indicated improvements in measures.

**Measurable Outcome/Analysis:** Descriptive statistics were used to analyze demographic characteristics. Within- and between-group differences in mental health from baseline to post and post to long-term follow-up (LTFU) were determined by linear mixed effects models. Baseline value, group, language, gender, race, ethnicity, education, and age were all fixed effects for the model.

**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 emotional eating or depressive symptoms at any time point (p>0.05). HS participant QoL trended towards significantly improving from baseline to post (4.5±6.6 vs 2.8±4.0; p=0.06). There was a significant decrease in QoL from post to LTFU (2.8±4.0 vs 4.00±4.7; p=0.04). There were no between-group differences in QoL at any time point (p>0.05).

**Conclusion:** These data suggest that HS positively impacted participant QoL. It is unclear whether this impact was a result of improved dietary quality. Dietary behavior data are needed to determine the reason for the impact on QoL.

**Funding:** USDA

Impact of Homestyles-2 Intervention on Fruit and Vegetable Intake and Cognitions of Adults Participating in SNAP-Education

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**Background:** Although chronic disease risk is inversely associated with fruit and vegetable (F/V) intake, only 12% and 9% of adults eat enough F/V, respectively. Teaching adults strategies for increasing F/V intake and targeting F/V-related cognitions are effective components of nutrition interventions. SNAP-Education (SNAP-Ed) is a federally funded nutrition education program that teaches SNAP-eligible families to make better food choices and utilizes such interventions.

**Objective:** To determine whether Homestyles-2 (HS), a virtual nutrition education intervention delivered through SNAP-Ed for parents/caregivers of children ages 6 to 11 years, improves F/V intake and related cognitions of participants compared to a virtual attention control (AC).

**Study Design, Settings, Participants:** The study was a two-arm, cluster-randomized controlled trial. Participants were recruited and taught by SNAP-Ed nutrition educators who had been randomized to teach a six-lesson HS (N=102) or AC SNAP-Ed (N=64) curriculum.

**Measurable Outcome/Analysis:** Demographic characteristics were analyzed using descriptive statistics. F/V intake and related cognitions were collected at baseline, post-intervention, and long-term follow up (LTFU). Differences were analyzed using a linear mixed effects model with fixed effects (eg, baseline value, group, language, gender, race, ethnicity, education, and age).

**Results:** Participants were 39.6 ± 7.9 years old, primarily female (96.3%), had a post-secondary education (71.6%),...
Improving Student-to-Student and Student-to-Instructor Connection Through the Use of a Novel Community-Building Platform

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Objective: Compare student connection achieved through Yellowdig to that achieved through typical, online discussions.

Use of Theory or Research: Social identification, an important aspect of social identity theory, is the process of identifying as a group member. This process promotes feelings of connection, which is essential for student satisfaction, academic success, and retention. Online discussions are utilized to connect students, yet it is difficult to encourage participation beyond what is required. Thus, new methods are needed to improve connection in online courses.

Target Audience: Online, asynchronous students in the Nutrition Education Methods (NEM) course in the Master of Science in Nutrition Education program at American University.

Curriculum Description: Yellowdig is an online learning platform that leverages an understanding of human behavior and gameful technology to build healthy online learning communities. Unlike typical discussions where everyone responds to the same prompt, Yellowdig lets students share and discuss real-world content that they feel is relevant.

Evaluation Methods: A group of students (n=10) enrolled in NEM were sent a 5-question survey on the online discussions utilized in their previous graduate courses. From strongly disagree to strongly agree, students indicated feelings of connection to both classmates and instructors. Yellowdig was then implemented into NEM as a replacement for online discussions. At the end of the course, the same survey was conducted on Yellowdig.

Results: From the initial survey, 20% of students agreed that discussions allowed them to feel connected with their classmates; 30% agreed that discussions allowed them to feel connected with their instructor; 20% strongly agreed the same. From the Yellowdig survey, 20% of students agreed that Yellowdig allowed them to feel connected with their classmates; 80% strongly agreed the same. Additionally, 40% agreed that Yellowdig allowed them to feel connected with their instructor; 50% strongly agreed the same.

Conclusion: The use of Yellowdig as a replacement for typical, online discussions allowed for a greater sense of both student-to-student and student-to-instructor connection.

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Inclusion-Promoting Teaching Strategy: Can “Nudging” Activities Encourage Students to Record Their Name and Gender Pronouns?

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Objective: To explore if adding ungraded inclusion-promoting activities to the beginning of the semester course orientation module in two online nutrition courses “nudges” students to voluntarily record the pronunciation of their name and their preferred gender pronouns for sharing within the course and campus community.

Use of Theory or Research: Learning the correct pronunciation of a person’s name and addressing them with their preferred pronouns is a sign of respect and helps foster a more inclusive learning environment. Research suggests that nudging, a behavioral theory used in marketing, can be an effective teaching strategy for encouraging students to complete an activity they otherwise might have ignored.

Target Audience: Undergraduate students enrolled in two asynchronous online nutrition courses taught by the same instructor at a Midwestern urban university during seven semesters (Fall 2021-Spring 2023).

Course/Curriculum Description: Beginning with the Fall 2022 semester, two ungraded, optional activities were developed and added to the course orientation module. One activity encouraged students to record the pronunciation of their name and the other to indicate their preferred pronouns. Students were told completing these voluntary activities was an important step toward helping create an inclusive learning climate.

Evaluation Methods: The data set was generated using each semester’s class roster (student’s pronouns and academic level) and the learning management system’s name recording tool. Data from 269 students (n=143; Before, n=126; After) were examined.

Results: Significantly more students recorded the pronunciation of their name, 72.1±4.1%; range 67.4-78.6% versus 12.9±9.7%; range 0.0-26.7% (p<0.0001), and more students indicated their preferred gender pronouns, 41.8±11.6%; range 32.1-60.7% versus 12.0±7.5%; range 0.0-23.3% (p<0.01), after the nudging activities were added to the course orientation module. There was no significant difference in the academic level between Before and After students.

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