

## O14 (continued)

named '5-a Day Punch' to improve fruit and vegetable consumption among young adults.

**Study Design, Setting, Participants:** Young adults (n = 91, age 18-30), were conveniently selected and later randomly divided into two groups as intervention (int) and control (cnt), based on equal gender and age distribution. Then a 4-week '5-a Day Punch' with two messages per week was assigned to the int group while the cnt group only received a brochure containing the same messages in the first week of the study.

**Measurable Outcome/Analysis:** Pre and post fruit and vegetable consumption patterns were identified in both groups using a pretested computer-based Food Frequency Questionnaire.

**Results:** Before the nudge, participants had consumed a mean 230.5g and 251.8g of total fruits and vegetables per day in the int group (fruits; 111.2g, vegetables; 119.3g) and cnt group (fruits; 103.6g, vegetables; 148.2g) respectively. After the nudge, the amounts consumed changed to, 340.5g per day and 309.4g per day respectively (int group: fruits; 172.5g, vegetables; 168.0g/ cnt group: fruits; 113.6g, vegetables; 195.8g). Though no greater change in mean fruit and vegetable consumption per day ( $P = 0.15$ ) was reported, the nudging resulted in greater fruit consumption ( $P = 0.029$ ) in the int group compared to their counterparts. The majority (int group) 84.4% (38/45) accepted text and email messaging have prompted them to incorporate more fruits and vegetables into their diet.

**Conclusions:** Text and email messaging appear to be an acceptable and effective way to promote healthy behaviors among young adults.

**Funding:** None.

### O15 Short Social Media Intervention Can Be as Effective as School Intervention in Changing Adolescents' Snack Consumption

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**Objective:** Development and evaluation of the educational intervention "Užina za 5!" using social media to influence healthier choices of beverages and snacks.

**Use of Theory or Research:** In adolescence, autonomy in snack choices increases. It is necessary to create educational interventions that promote healthier choices which could be via social media, as they have become an indispensable part of adolescents' lives. The DESIGN procedure is a scientific-based framework that was used to create the educational intervention based on the knowledge-attitude-behavior model and social cognitive theory.

**Target Audience:** High school students (15-19 years old).

**Program Description:** At one high school in Osijek, 3 classes (n = 49) were randomly selected to participate in an intervention designed as a 2-week challenge (20 posts) in private Facebook groups. The other 3 classes (n = 44) participated in a school-based intervention consisting of two lectures (45 minutes) two weeks apart. Both types of educational interventions in which adolescents learned about the principles of healthy eating and food traffic light label were designed and delivered by a nutritionist.

**Evaluation Methods:** To evaluate the effectiveness of the digital intervention, the results of the pre/post online nutrition knowledge questionnaire and the results of the quantitative beverage and snack food frequency questionnaire for adolescents were compared with the results of the school-based intervention using two-way ANOVA with replication.

**Result:** s: Although both interventions increased nutrition knowledge, the school-based intervention had the greater effect ( $\Delta 1.5$  vs.  $\Delta 0.8$ ;  $P = 0.014$ ). The ratio of healthy beverages ( $\Delta 1\%$  and  $\Delta 3\%$ ;  $P = 0.08$ ) and food ( $\Delta -4\%$  and  $\Delta -2\%$ ;  $P = 0.57$ ) did not differ after the interventions, but both interventions significantly reduced frequency and quantity of adolescents' healthier and unhealthier food and beverages consumed as snacks.

**Conclusions:** Social media showed potential in nutrition education for adolescents. Future research should focus on other social media and longer intervention duration to assess whether they can supplement or replace school-based interventions.

**Funding:** None.

### O16 Understanding Barriers and Facilitators to Virtual Culinary Nutrition Instruction for Youth

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**Background:** The COVID-19 pandemic caused FamilyCook Productions to re-design its evidence-based curriculum, Teen Battle Chef (TBC), to be taught virtually in a feasible format that allows culinary skill development that could result in positive behavior changes.

**Objective:** Examines barriers and facilitators to achieving a well-delivered and well-received, live, virtual format for an evidence-based, teaching kitchen program for youth.

**Study Design, Settings, Participants:** Twelve adolescent cohorts received a virtual version of TBC April to August 2020 (n = 145) Quantitative and qualitative process data examined participation barriers and facilitators, progress in gaining cooking skills, the use of the Framework for

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## O16 (continued)

10 Experimental Drivers of Behavior Change, identifiers of behavioral and attitudinal changes. Participant post-survey and instructor interviews assessed capabilities and barriers to participation.

**Measurable Outcome/Analysis:** Session observation measured attendance, cooking with instructor, instructor's use of visual aids. Post served measured youth attitudes and behaviors.

**Results:** Instructors (91.6%) used new visual aids to facilitate virtual learning (PowerPoints/videos). Adolescents attended a mean of 8.2 of 12 sessions. The percentage of adolescents cooking with the instructor was 37.3%. The post-survey (n = 28) revealed 92.9% of adolescents felt empowered to prepare meals on their own; 57.1% reported regularly trying to get more 'colors' of fruits/vegetables in their meals. Difficulty obtaining ingredients was the largest participation barrier (42.9%). An average of 8.4 of the 10 Experiential Drivers of Behavior change were used in these virtual sessions. Instructor interviews revealed 100% felt they were effective in supporting students to cook at home and 90% reported advantages of students using home kitchens.

**Conclusions:** Virtual live culinary education elicited student participation and skills development, despite barriers of online education. Educators found students being in their own home kitchens facilitated their ability to develop the targeted culinary/life skills and adopt them in their lifestyle more quickly than in classroom instruction. These positive findings suggest future evaluation of virtual culinary nutrition education is warranted.

**Funding:** None.

## Tech Equity Applied to Food Systems

### O17 Current Use and Demand for Digital Tools to Enhance Food Pantry Management: Findings from a Nationwide Survey

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**Background:** Food insecurity has skyrocketed during the COVID-19 pandemic, compounded by critical limitations and unparalleled needs at food pantries. Interconnectivity between food pantry staff and clients is vital to food security. Digital tools are widely used in public health;

however, little is known about current use or desire for digital tools in food pantry settings.

**Objective:** To define types of digital tools currently used for pantry management and identify gaps and interest in specific digital tool features to enhance pantry management.

**Study Design, Setting, Participants:** A cross-sectional online survey of U.S. food pantries was disseminated from January-May 2022. Using the foodpantries.org database, every tenth food pantry in each state was recruited via email and asked to complete the survey via Google Forms. The response rate was 27.4% (n=283/1,032). Most respondents (64.5%) identified as food pantry directors.

**Measurable Outcome/Analysis:** Descriptive statistics were used to characterize pantry location, size (pounds of food distributed), number of staff and volunteers (SV), use of a client choice model, and to describe the current tools used by pantries for multiple aspects of management.

**Results:** A majority (54.8%) of respondents represented large food pantries. Pantry-specific digital applications were rarely used. Instead, respondents reported using word-of-mouth and email to recruit SV, phone calls and emails for SV scheduling, and in-person classes for SV trainings. Clients were most often contacted via phone or email. There was high demand for an app for SV scheduling (50.2%), providing a safe, remote version of client choice (42.4%), client registration (35.7%), client and SV communications (35.0%), and connecting with nearby emergency services (22.3%).

**Conclusions:** Food pantry directors desired an app to support SV management, SV and client communication, safe client choice, and connection to emergency services. Future app development to enhance food pantry management and optimize food distribution is greatly needed.

**Funding:** None.

### O18 Restaurant-Based Programming to Improve Healthy Food Access: Eat Fit Program Impact and Factors that Influence Adoption

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**Objective:** We examined the impact of the Eat Fit program (EF) on healthy food access for customers and restaurant manager/owner factors that contribute to program adoption.

**Use of Theory or Research:** Social cognitive theory informed constructs measured regarding restaurant manager/owner factors that contributed to program adoption.

**Target Audience:** Restaurant owner/managers and customers in New Orleans, Louisiana

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