O3 (continued)

period when survivors need additional support and guidance. A Phase I pre-experimental 4-month clinical trial was conducted with post-treatment cancer survivors.

Theory, Prior Research, Rationale: Motivational interviewing is a successful practice that grew out of both theoretical and practical considerations. It relies on both relational aspects between trained interventionist and client as well as behavioral reinforcement. Trained dietitians provided e-MIC to support survivors and encourage self-management of dietary patterns and positive behavior change.

Description: Program feasibility was measured by acceptability, demand, practicality, adaptability, integration, expansion, and efficacy. Program efficacy was assessed via pre- and post-intervention diet and lifestyle questionnaires, anthropometric measurements, and biomarkers of health.

Evaluation: Survivors reported minimal disruption of daily activities and high levels of satisfaction with e-MIC. Program adherence and compliance were excellent. Consumption of produce increased while consumption of red/processed meats and sugar-sweetened beverages declined. Skin carotenoids, blood glucose, and non-HDL cholesterol improved. In addition, 100% of participants reported that the intervention helped them achieve positive lifestyle behaviors that were sustained 6-months post-intervention. One hundred percent rated the program as "Very Good/Excellent," and stated they would recommend the program.

Conclusions and Implications: Findings from this study indicate that the e-MIC Program was well received and provides preliminary support for efficacy. A full-scale RCT is needed to measure the effectiveness of intervention for cancer survivors and generalizability to a variety of demographic populations.

Funding: Ohio State University Food Innovation Center

O4 Nutrition Education Works: Increasing Nutrition Literacy and Promoting Healthy Eating in Israeli Adolescents

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Objective: Currently, nutrition is not taught in most Israeli schools. However, 9th-grade Biology teachers can include 4 hours of nutrition topics. This study evaluated changes in nutrition literacy and eating behaviors following the addition of 20 hours of nutrition education to the current science curriculum.

Design, Setting, and Participants: Junior high school students (n=181), aged 14-15 years, 50% males, participated in a controlled prospective study at intervention schools (n=131) or a control school (n=50). Students completed semi-structured questionnaires before and after the program and at 2 month follow-up. Activities were carried out in a classroom setting and were based on social cognitive theory, emphasizing self-efficacy.

Frontal lectures, class discussions, games and experiential activities including food preparation were used to present a wide range of nutritional topics. Data was analyzed using student's t-test (control vs experimental) and paired t-tests for pre-post evaluation in the intervention group.

Evaluation: Baseline data was similar for control and intervention groups. Students participating in the expanded program improved their ability to correctly answer nutrition knowledge questions from 70% to 86% ($P \leq 0.05$). Significantly greater consumption of fruits and vegetables (~3 servings daily to ~5 servings), increased use of food labels and overall better food choices were also reported. Almost all students (91%) reported making at least one dietary change. No significant changes were observed in controls.

Conclusions and Implications: This study supports the efficacy of school-based nutritional programs for improving literacy and promoting healthy eating in adolescents. It is recommended that the Israel Ministry of Education expand nutrition education in this age group.

Funding: None

O5 Nutrition Behavior Modification Through Mobile Technology

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Objective: Past decades, abundant nutrition researches has developed dietary guidelines in determining what people should eat to attain optimal health and weight. Traditional approaches to public health-based initiatives have attempted to achieve our behavior change mainly through the communication of health-related information, for example: teaching of significant health risks, foods to avoid. However, traditional nutrition education approaches to changing population eating patterns have met with limited success. Recent research in the fields of Behavioral Economics and Behavioral Psychology suggests that even when people have the requisite nutrition knowledge, people often fail to act on good healthy eating when making health-related decisions.

Description: In this study, we will examine the potential of using mobile and online technologies as part of nutrition wellness program in order to achieve changes in health-related behavior. We propose a behavioral theoretical framework for the examination of eating pattern with aid of technology. The framework assists in characterizing how technology will assist as integral part to food choice practices, and direct attention when nutrition interventions aimed at changing eating patterns.

Methods: Diet tracking and weight loss were compared across participants during a 4-week nutrition

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O5 (continued)

examination trial. One group of the participants tracked intake using mobile app. Another group of the participants tracked intake using a traditional paper-and-pencil method.

Evaluation: App users ($n = 25$) recorded dietary data more consistently compared with the paper-and-pencil group ($n = 20$). All groups lost weight over the course of the study ($P = .001$), and healthy eating were significantly improved for the mobile app group.

Conclusions and Implications: Mobile app and technology could represent a novel and feasible healthy eating behavior modification for individuals.

Funding: None

O6 Effects of a Nutrition Education Intervention on Maternal Nutrition Knowledge, Child Care Practices and Nutrition Status

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Objective: The objective was to determine the effect of a nutrition education intervention on maternal nutrition knowledge, child care practices, dietary intake and nutrition status of children.

Design, Setting, and Participants: The study was conducted in Turkana, Kenya where 73 mothers with at least 1 child 5 years or younger were randomly selected to participate. Mothers were trained for 5 days by the researchers and trained community health workers from the village. Training sessions included lectures and hands on demonstrations on breastfeeding, complementary feeding, hygiene and sanitation.

Outcome, Measures and Analysis: Nutrition knowledge and child care practices were assessed using validated questionnaires, a 24 hour food recall questionnaire was used assess dietary intake and nutrition status was determined using weight and height. Paired test and McNemar tests were used to determine the effect of the intervention. Data was collected at baseline ($n=73$) and at follow-up 6 months later ($n=57$).

Evaluation: At follow-up, maternal knowledge on ideal quality of complementary foods and on how to feed a sick child increased by 61.4% ($P=0.01$) and 31.6% ($P=0.01$) respectively. Knowledge on breastfeeding did not change as it was already high at baseline. More mothers gave de-worming medications (25.1%; $P=0.01$) as well as nutrition supplements and immunizations. Incidences of respiratory tract infections reduced by 27% ($P=0.03$), Dietary intake, except for calcium (increased by 103mg $P=0.001$), and child nutrition status did not change significantly.

Conclusions and Implications: Results of this study indicate that a demonstration based nutrition education intervention can improve maternal knowledge and child care practices but additional strategies focused on

improving food security would be necessary to improve dietary intake and nutrition status of children.

Funding: None

O7 Factors Influencing Nutritional Risk Among Congregate Meal Participants

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Objective: Improving nutrition status among older adults is a critical issue in many U.S. communities. This study assessed the impact of food security (FS), healthy eating self-efficacy, and self-reported health on nutritional risk (NR) among congregate mealsite participants.

Design, Setting, and Participants: A convenience sample of 720 older adults from 67 congregate mealsites in a Midwest state participated.

Outcome Measures and Analysis: Participants completed a five-item healthy eating self-efficacy scale, the U.S. Household Food Security Survey: Six-Item Short Form, and the Dietary Screening Tool (nutritional risk). Participants provided demographic information including education, marital status, gender, age, and self-reported health status.

Evaluation: Participants were mostly high-school educated, widowed, food secure, White females who reported being in "somewhat good to very good health." The majority (88.3%) were categorized as "at possible NR" or "at NR." Of these, 92.0% and 90.0% were classified as having "low FS" and "very low food FS" respectively ($p=.129$). A majority of those "at possible NR" (40.3%) or "at NR" (57%) reported "average or somewhat/very poor" health ($p=.004$). A stepwise multiple regression predicted NR from gender, age, education, self-reported health status, healthy eating self-efficacy, and FS. Commonly reported NR predictors (i.e. health status, education, age) predicted 10% of NR ($F(5,556)=15.25$, $p<.0005$, $r^2=.10$). When self-efficacy was added to the model, predictability increased to 15% ($F(6, 555)=19.45$, $p<.0005$, $r^2=.15$).

Conclusions and Implications: Findings suggest that healthy eating self-efficacy is an important factor to consider for NR reduction. Future NR reduction programs should not only address dietary behaviors but also provide activities that will help older adults strengthen healthy eating self-efficacy.

Funding: Supplemental Nutrition Assistance Program - Education

O8 Family Meals and Mental Health Indicators of Adolescents: Findings From a National Study

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