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Objective: A smartphone app is potentially useful for delivery of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) nutrition education, as many participants use smartphones. It is important to investigate cultural differences that may impact optimal utility, design, and use of a WIC app. The objective of the study was to examine cultural differences regarding the usage of a WIC app prototype designed to improve health behaviors.

Design, Setting, and Participants: A total of 54 WIC mothers in 6 focus groups held in Southwest Texas (79% Hispanic and 42% Spanish-only speakers) tested a WIC app prototype. Prompts based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model for behavior intention were included in the focus group discussion guide. Comments were recorded and transcribed. Using Nvivo 10, comments were coded for behavioral intention.

Outcome Measures and Analysis: Emerging themes for behavior intention were established. Observations between English and Spanish speaking groups were compared and differences identified.

Results: Major differences were seen in motivations to use the app and how the app would be used for the family. Spanish speakers viewed smartphones as tools, whereas English speakers habitually used smartphones. English speakers uniquely wanted an app to monitor individual family members' behaviors.

Conclusions and Implications: Differences in WIC app acceptability could be explained by perceptions regarding family structure, the necessity of a smartphone, and habits for seeking emotional and social support. Such differences are important when considering the delivery of electronic nutrition education as well as potential limitations of applying UTAUT to Spanish speaking populations.

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P257 Diet Tracking Mobile App Ownership Is Not Associated With Lower Weight, Energy Intake, or Improved Weight Loss Behaviors

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Objective: Dietary self-monitoring using mobile technology holds promise as a way to help people consume fewer calories, engage in effective weight loss behaviors, and improve self-efficacy around weight loss; however, few studies have examined this. The purpose of this study was to determine if installation of dietary mobile apps is linked to weight.

Design, Setting, and Participants: Overweight adults (n=101, BMI 34.1±5.7 kg/m², 47.8±12.0 years old, 16% male, 19% African American) who were recruited to participate in a technology-based mobile weight loss intervention completed surveys and anthropometric assessment at baseline.

Outcome Measures and Analysis: Participants had their height/weight assessed, were asked if they had an app installed on their phone to track diet, and completed the Eating Behavior Inventory (EBI), Weight Efficacy Lifestyle Questionnaire (WEL-Q), and two days of dietary recall.

Results: About half (n=58) of participants reported having installed a diet app. There was no difference in gender or race between diet app users and non-users; however app users were significantly younger (44.2±11.9 y) than non-users (52.6±10.5 y; p<0.001). Age-adjusted models showed no differences in kcals/day (2176±833 non-users vs. 2209±871 users; p=0.90), EBI score (74.6±11.4 non-users vs. 73.9±11.0 users; p=0.58), or any of the five domains of the WEL-Q (p's all >0.05).

Conclusions and Implications: The results of this study demonstrate that installing diet tracking apps, without additional behavioral support, may not be enough to impact BMI, energy intake, effective weight loss strategies, or weight loss self-efficacy. These findings point to the need for effective behavioral strategies to be included within apps designed for dietary self-monitoring.

Funding: NIH

P258 Development and Application of Web-Based Dietary Evaluation System Using Food Frequency Questionnaire for Korean Adolescents

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Objective: We previously developed a dish-based semi-quantitative food frequency questionnaire (FFQ) for Korean adolescents and the developed FFQ's reliability and validity was found reasonable. The objective of the current study was to construct web-based dietary evaluation system applying the FFQ for Korean adolescents and examine its applicability in the context of reliability and validity.

Design, Setting, and Participants: A web-based dietary evaluation system was designed in a comprehensive approach, incorporating not only dietary data survey but also up-to-date nutrition information and individualized eating behavior guidelines. A convenience sample of 50 boys and girls aged 12-18 years agreed in the study participation and completed the FFQ twice and 3 days of dietary recall on the developed website during a two-month period.

Outcome Measures and Analysis: The FFQ's reliability and validity was examined using correlation and cross classification analysis. We also measured participants' subjective levels of the web site's usability, visual effect, understanding, and familiarity.

Results: Spearman correlation coefficients for reliability ranged from 0.74(for vitamin A) to 0.94(for energy). From cross-classification analyses, the proportion of

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subjects in the same intake quartile was highest for energy(82.0%) and lowest for vitamin A(56.0%). With regard to validity analysis, Spearman correlation coefficients ranged from 0.27(for PUFA) to 0.79 (for energy). The proportions of subjects in the opposite categories between the first FFQ and 3-day diet recall data were generally low from 0.00% (for fat) to 36.2% (for sodium). Average subjective levels of the website's usability, visual effect, understanding, and familiarity were all found over 4 points out of 5 points.

Conclusions and Implications: The developed web-based dietary evaluation system can serve as a valid and attractive tool for administering FFQ to Korean adolescents.

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P259 Barriers and Facilitators to Weight Maintenance After Reaching a Goal Weight Within a Meal Replacement Program

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Objective: To identify barriers and facilitators of weight maintenance after reaching a goal weight in meal replacement program (MRP) participants.

Design, Setting, and Participants: Seven focus groups of ≤ 8 clients were conducted to discuss barriers and facilitators to weight maintenance prior to reaching a point of saturation. Participants were thirty-two MRP participants (31-82 yrs old) who had reached their goal weight via a proprietary MRP that included an element of health coaching.

Outcome Measures and Analysis: Data were analyzed with NVivo10 qualitative software using content analysis theory to identify emerging themes.

Results: "Program logistics" was the most commonly discussed program barrier, which included subthemes of nutrition and physical activity education, support from health coaches, and confidence in health coach knowledge. "Outside influence" emerged as the second most robust barrier discussed, which included work environments and social interactions. "Interpersonal relationships" emerged as a primary weight maintenance facilitator, which encompassed interactions from family, friends, and coworkers. Health coaches also emerged as a facilitator of weight maintenance in terms of support, knowledge, and consistency.

Conclusions and Implications: While different themes emerged as the most prominent barriers and facilitators to weight maintenance, strengths and weaknesses were noted within each theme highlighting the vast variation in participant needs. MRPs should consider adding a program screening tool to learn about the needs of program participants in order to tailor the

program to each individual and thus, maximize weight maintenance.

Funding: Sanford Health – South Dakota State University

P260 The Undiet Revolution: Impact of a Nutrition and Mindful Eating Intervention on Eating Behaviors and Weight Loss

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Objective: This study assessed the efficacy of a mindful eating and nutrition education program on eating behaviors and weight loss.

Design, Setting, Participants, and Intervention:

This program incorporated nutrition education taught by Registered Dietitians in addition to a mindful eating component. Twelve overweight adult women (average BMI =30; average age 52 years) from Colorado Springs enrolled in a 12-week educational intervention (The Undiet Revolution) consisting of 1.5 hours each week. Topics included mindful eating and movement, basic nutrition education, cooking demonstrations, grocery store and greenhouse tours, and stress.

Outcome Measures and Analysis: Anthropometrics were measured on a Tanita scale at baseline, 6 and 12 weeks. Mindful eating behaviors were evaluated at baseline and 12 weeks using the Framson Mindful Eating Survey (1-4 scale), and other surveys used by Peak Nutrition Clinic. Data were analyzed using non-parametric statistical tests (Significance at $p \leq 0.05$), SPSS 23.

Results: Seven women completed the study. Weight did not change over time. There was a statistically significant increase in eating awareness (2.3+/-0.6 vs 3.1+/-0.8, $p=0.028$), ability to stop when full (disinhibition) (2.4+/-0.6 vs 3.1+/-0.4, $p=0.028$), and emotional eating in response to negative states (2.2+/-0.88 vs 3.01+/-0.93, $p=0.018$ between baseline and 12 weeks. Although not significant, eating while distracted and eating based on environmental cues also improved.

Conclusions and Implications: The Undiet Revolution appeared to improve eating behaviors and mindfulness but not weight loss. Although sample size was a limiting factor, the results proved encouraging for healthier eating patterns.

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P261 Behavioral Correlates of Empirically-Derived Dietary Patterns Among University Students

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