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were queried for weight-related eating behaviors (using Weight Related Eating Questionnaire) of routine restraint (RR), compensatory restraint (CR), susceptibility to external cues (SEC), and emotional eating (EE) in relation to CSWL (defined as having achieved a weight loss greater than 10% of starting weight).

Measureable Outcome and Analysis: Participants were dichotomized into those with CSWL (n=973) and with no CSWL (n=481) the relationship between CSWL (controlling for age and sex) as the dependent variable and weight-related eating behaviors as the independent variable was assessed using logistic regression (Stata/SE 14).

Results: Those with CSWL have higher odds of having RR (OR: 1.3, $p < 0.05$) and CR (OR: 1.1, $p < 0.05$) and lower odds of having SEC (OR: 0.7, $p < 0.05$) and EE (OR: 0.8, $p < 0.05$) than those without CSWL.

Conclusions and Implications: Weight-related eating behaviors of participants in proprietary meal replacement weight-loss programs who have successfully lost weight differ compared to those who have not. Knowledge of the relationship between CSWL and weight-related eating behaviors can be used by coaches to assist participants in reinforcing those behaviors that support weight loss. These results are limited to participants who self-select for proprietary meal-replacement weight-loss programs and cannot be generalized to other weight-loss or maintenance programs.

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P154 Self-Reported Young Adult Male Androgen Deficiency Correlation with Stress and Sleep

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Objective: Androgen deficiency in males has traditionally been predominantly limited to older men aged 50+ years. However, the increase in the prevalence of chronic diseases in young males is expanding the conventional scope of hypogonadism as emerging evidence suggests that the condition is positively correlated with obesity, diabetes and cardiovascular disease. Little is currently known of the relationships between hormonal disruption, stress and sleep in young adult males This study investigates lifestyle behavior patterns in male college students, including screening for androgen deficiency.

Study Design, Setting, Participants, Intervention: Over 1,100 college freshmen across 8 U.S. universities participated in the USDA-funded GetFruved study, a project aimed at identifying and improving lifestyle behaviors.

Outcome Measures and Analysis: A sub-sample of 386 male students was surveyed. Instruments used include the Androgen Deficiency in the Aging Male Questionnaire (ADAM) to assess androgen deficiency, the Perceived Stress Scale to measure stress levels and the Pittsburgh Sleep Quality Index (PSQI) to evaluate sleep quality. Logistic Regression Analysis of the data was completed using JMP and SAS software.

Results: One hundred twenty-eight male participants met the criteria for androgen deficiency as defined by the ADAM questionnaire. Univariate logistic regression showed statistically significant effects of increased stress ($p < 0.0001$) and poor sleep ($p < 0.0001$) on ADAM scores. Following categorization, sleep findings were confirmed by an agreement analysis ($p < 0.0001$). When modeled together, stress showed a stronger effect than sleep on ADAM scores ($p < 0.0001$ versus $p = 0.1235$ respectively).

Conclusions and Implications: In young adult men, correlation was found between androgen deficiency and both increased stress levels and poor sleep quality, with stress displaying the strongest effect.

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P155 Using a Grocery List is Associated with Higher Diet Quality but not BMI in Parents of School-Aged Children

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Objective: Define the association between grocery list use, diet quality and weight status among parents of school-aged children.

Study Design, Setting, Participants, Intervention: Parents (n=356) of children participating in Fuel for Fun, a school-based culinary and physical activity intervention, completed online, tested surveys on BMI, socio-demographics and eating behaviors. A subset (n=83) completed ASA24 dietary assessment to obtain Healthy Eating Index (HEI).

Outcome Measures and Analysis: Participants who shopped with a grocery list “most of the time” or “almost always” were dichotomized versus those responding “sometimes/seldom/do not do”. Chi-square and independent samples t-tests compared differences in socio-demographics, eating behavior, HEI and BMI by grocery list use. Linear regression models measured the association between shopping with a list and HEI or BMI controlling for covariates.

Results: Parents (mean age 38.0 ± 6.5 y) were mostly white (90%), female (87%), and highly educated. BMI was overweight/obese for 42%. Total HEI (scored 0-100) ranged from 22.0 - 77.4, mean 55.4 ± 12.4 SD; grocery

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list users reported higher HEI ($n=62$, mean 57.8 ± 11.9 SD) relative to non-users ($n=20$, mean 48.0 ± 11.1 SD, $p=0.002$). No difference in mean BMI by use of grocery list was noted ($p=0.10$). Covariate-adjusted regression model indicated total HEI was higher among participants who consistently used a grocery list by 7.9 points ($p=0.02$), but use of a grocery list was not associated with BMI ($p=0.79$).

Conclusions and Implications: Consistent use of a grocery list was associated with a higher dietary quality, but not BMI. Adopting routine use of grocery lists appears to be a feasible, low-tech, no-cost approach to higher dietary quality.

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P156 Web-Based Nutrition Education Program Improves Healthy Eating Strategies in South Asians

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Objective: To determine any differences in healthy eating strategies (HES) in South Asians (SA) as a result of an online nutrition education program.

Study Design, Setting, Participants, Intervention: SA have an increased risk of diabetes and cardiovascular diseases in comparison to other ethnic populations in the U.S. To prevent and mitigate the consequences of these conditions, theory-based nutrition programs are needed which can lead to improvement in healthy eating habits. This online nutrition education program was developed following the DESIGN procedure and was guided by the Theory of Planned Behavior. The program focused on consumption of fruits and vegetables, label reading, weight management and physical activity. One of the variables in this project was the measurement of HES. The 15 questions related to HES were adapted from validated survey developed by Norman and colleagues (2010) and scored based on frequency of these strategies. SA participants ($n=166$, 58.7% females) completed the pre-test survey, out of which 66 enrolled in the program.

Outcome Measures and Analysis: Statistical analysis included descriptive statistics for demographics, and independent t-tests to determine the differences between pre- and post-test healthy eating strategies.

Results: Mean age of participants was about 27 years indicating a younger sample. In regards to HES, significant ($p<0.05$) differences were observed pre-test (Mean=47.396, Standard Deviation=10.7) and post-test scores (Mean=52.552, Standard Deviation=8.97) which suggested an improvement in the healthy eating strategies score after the program.

Conclusions and Implications: Results from this study suggest that a theory-based, online program improved healthy eating strategies score of SA in the

U.S. This can help guide the development of future large scale nutrition education and prevention studies in this population.

Funding: None

P157 Wildland Firefighters' Self-Reported Nutrition and Hydration Concerns that May Impact Health and Safety

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Objective: The purpose of this study was to identify wildland firefighters' (WLFFs) self-reported hydration and nutrition practices, they perceived may impact health and safety while on an active fire assignment in the United States.

Study Design, Setting, Participants: Using an online format, WLFFs ($n=422$) were asked two open-ended questions and five demographic questions. One question asked participants to indicate nutrition and hydration factors that contribute to common health and safety accidents. The second question asked participants whether they had additional comments related to health and safety.

Outcome Measures and Analysis: Descriptive data was tabulated for the demographic questions, and content analysis of narrative text was used to identify major themes.

Results: WLFFs consisted primarily of firefighter crew members ($n=302$, 72%), and managerial positions ($n=120$, 28.1%). The majority had a college degree or higher ($n=261$, 61.8%). Five overarching themes were identified in WLFFs' perceptions of the nutrition and hydration factors that influenced health and safety: practices that cause dehydration (e.g. caffeine intake); challenges and successes with hydration and nutrition; food quality as a priority (e.g. increasing nutrient dense foods and decreasing processed and convenient foods); the impact of sleep on overall diet; and WLFFs' lack of knowledge of healthful nutrition and hydration practices.

Conclusions and Implications: WLFFs reported nutrition and hydration practices that they perceived contribute to health and safety while on a fire assignment. WLFFs responses indicate a greater understanding of nutrition and hydration practices is needed to minimize accidents during fire operations, and to establish nutrition and hydration guidelines for agencies that fight fire.

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P158 Young Adult African American Dietary Patterns Vary by Ethnic Identity

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Objective: The study evaluated associations between dietary intakes and ethnic identity among young adult