

Acceptability of 100% Blueberry Juice, Fiber-Fortified, Antioxidant-Rich Rooibos Tea Containing Sorbet Developed to Help Prevent Type 2 Diabetes**Author(s):** D. Piland¹, L. Browning²; ¹Missouri State University, ²Mercy Hospital**Learning Outcome:** Upon completion, participants will be able to name three functional foods or ingredients shown to help prevent type 2 diabetes which were successfully incorporated into a sorbet product.**Background:** Most adults consume less than recommended amounts of dietary fiber and antioxidants, increasing their risk for chronic health conditions including type 2 diabetes. Blueberries contain antioxidants which protect pancreatic beta cells from oxidative damage, soluble fiber has been shown to help normalize blood glucose levels and rooibos tea contains the only known source of aspalathin shown to reduce hepatic insulin resistance.**Objective:** The purpose of this study was to develop an acceptable sorbet which included sources of antioxidants from 100% blueberry juice and rooibos tea, and soluble dextrin-based fiber.**Design:** A quantitative and qualitative sensory evaluation and Likert scale survey were used to rank and evaluate the variations.**Participants/setting:** Products were developed by dietetics undergraduate students. Thirty-four panelists from Missouri State University participated in the sensory analysis.**Main outcome measures:** Four variations of sorbet were tested using a 5-point sensory evaluation and Likert scale survey. Also collected was qualitative information on acceptability and willingness to purchase and consume these products based on sensory attributes and health benefits.**Results:** Results determined the highest rated sample contained 4 g fiber and 5.93 mg aspalathin per 4 oz. serving. Seventy-one percent of participants indicated that they would purchase and consume this product due to its potential health benefits.**Conclusion:** This study determined that sorbet containing 100% blueberry juice, soluble fiber, and Rooibos tea is an acceptable source of fiber and antioxidants. This product in conjunction with a healthful diet may provide health benefits, including assisting to prevent type 2 diabetes.**Funding source:** No specific funding was provided for this project.**Adults with Recent Binge Eating Episodes Have Higher BMI, Eating Disorder Symptom Scores, And Odds of An Eating Disorder Than Non-Bingers****Author(s):** K. Coakley¹, K. Serier², J. Smith³; ¹College of Education and Human Sciences, University of New Mexico, ²National Center for PTSD, VA Boston Healthcare System, ³Department of Psychology, University of New Mexico**Learning Outcome:** Upon completion, participant will be able to describe binge eating and binge-eating disorder frequency in a non-clinical sample of adults and compare eating disorder symptoms and features to non-binge eaters.**Background:** Binge-eating disorder (BED) is the most common eating disorder (ED); however, ED symptoms are not well-examined in adults who binge eating but do not meet BED diagnostic criteria.**Methods:** University students and staff 18 years and older were recruited in fall 2021 and completed a demographic survey, the SCOFF questionnaire and Binge Eating Disorder Screener-7 (BEDS-7), and the Eating Disorder Inventory-3 (EDI-3). Participants were grouped into three categories based on BEDS-7 responses: non-bingers, bingers (at least one binge eating episode in the past three months), and probable BED. One-way ANOVAs were utilized to examine differences in BMI, drive for thinness, bulimia, and body dissatisfaction EDI-3 scores. Logistic regression examined odds of an ED (SCOFF score \geq 2) between groups.**Results:** 109 participated (74% female, 42% White, 82% students, mean age=27.7 years, mean BMI=24.9). Twenty-three (21%) screened positive for BED, 15 (14%) reported binge eating but did not meet BED criteria (BINGE), and 71 (65%) were non-bingers. BINGE and BED groups had significantly higher BMIs and drive for thinness, bulimia, and body dissatisfaction scores than non-bingers ($p < 0.05$), but BMI and EDI-3 scores did not differ between BINGE and BED. Bingers had significantly higher odds of an ED (SCOFF score \geq 2) than non-bingers (OR=6.23, 95%CI=1.88-20.71).**Conclusion:** Adults with recent binge eating, but who did not meet BED criteria, had higher BMI, ED symptom scores, and 6.23 times the odds of an ED based on SCOFF scores than non-bingers. Though binge frequency was not assessed, adults with recent binge eating warrant further clinical assessment.**Funding source:** Supported by a University of New Mexico Research Allocation Committee Grant.**Anxiety, Depression and Food Insecurity Among Health Professions Students During the COVID-19 Pandemic****Author(s):** J. Sackey¹, J. Sullivan¹, R. Brody¹, N. Gao¹, R. Touger-Decker², L. Byham-Gray¹; ¹Rutgers University, School of Health Professions, ²Rutgers Biomedical and Health Sciences**Learning Outcome:** Upon completion, participants will be able to describe the prevalence of food insecurity among health professions students and factors associated with food insecurity in this group during the COVID-19 pandemic.**Background:** Food insecurity among college students exceeds the national average. COVID-19 impacted food security status and increased anxiety and depression across the U.S. This study explored how anxiety and depression were associated with COVID-19 related changes in food security status among health professions students.**Methods:** A cross-sectional web-based survey emailed between January-March 2021 was utilized. COVID-19 related changes in food security status were assessed by one survey question. Anxiety and depression were measured using the 4-item Patient Health Questionnaire scale [PHQ-4]. Binary logistic regression with COVID-19's impact on food security status as the dependent variable was used to analyze the data, adjusting for covariates selected a priori.**Results:** Of the 816 respondents, the median age was 25 years, 74.6% were female and 31.3% were first-generation college students. Thirty-one percent had screening scores reflecting depression, 17.2% reflected anxiety and 14.8% reported that their food insecurity increased during COVID-19. Screening positive for anxiety was associated with higher odds [OR=2.66] of being more food insecure due to COVID-19 after adjusting for covariates. Being a first-generation student [OR=1.87], receiving student loans [OR= 1.81], losing income due to COVID-19 [OR=4.14], and being Black or African American [OR=3.33] were also independently associated with higher odds of being more food insecure due to COVID-19 after adjusting for other covariates.**Conclusions:** Anxiety was independently associated with being more food insecure due to the COVID-19 pandemic among health professions students. Further research exploring screening and interventions for food insecurity and mental health among health professions students is needed.**Funding source:** This work was supported by the Department of Clinical and Preventive Nutrition Sciences at Rutgers University which provided gift cards that were raffled off to participants who completed the survey.**Associations between Diet, Stress, and Gastrointestinal Health in Endurance Runners****Author(s):** E. Crain, A. Licata, J. Hoffman; Winthrop University**Learning Outcome:** Upon completion, participant will be able to list 3 factors impacting GI distress in runners and describe the relationship between psychological stress and GI symptoms found in the current study.**Background:** Endurance exercise, especially running, causes gastrointestinal (GI) distress in some individuals, which is thought to be related to reduced gut blood flow and increased intestinal damage and permeability during exercise. Many factors may modulate the presence of GI distress during exercise, including diet, stress, and gut microbiome composition. Therefore, this observational study aimed to assess associations between dietary factors, stress, and gastrointestinal parameters in recreational endurance runners.**Methods:** Data collection included fecal samples, 3-day food and exercise logs, and an online survey assessing running habits, GI health, and psychological stress. Microbial DNA from fecal samples was extracted and will be used in future research to assess gut microbiome composition.**Results:** Twelve participants completed the study. Results showed that participants consumed a high fat (37.2% of calories) and low carbohydrate intake (43.5% of calories). Higher GI symptom scores were significantly associated with food consumption 1-4 hours prior to a run (n=6), compared to no food consumption (n=6; $p=0.011$). No significant associations were found between GI symptoms and psychological stress.**Conclusion:** These results indicate that food intake prior to running may be a factor in the incidence of GI symptoms during running. In addition, this population consumed an abnormal diet in comparison to recommendations, suggesting a need for nutrition education and intervention. Future research should be conducted to further understand these potential factors impacting GI symptoms in endurance runners, and to identify methods to provide individualized nutrition interventions to minimize GI distress in this population.**Funding source:** Winthrop University Internal Biomedical Research Fund.