Prevalence of and Reasons for Dietary and Supplementation Habits Among Physically Active College Students

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Research finds that vegetarian diet, sports participation, and living during the COVID-19 pandemic have separately been found to increase risk of eating disorder behavior. Such behavior contributes to decline in athletic performance due to RED-S and micronutrient deficiencies. PURPOSE: To describe supplement habits, knowledge, and reasoning for dietary practices among vegetarian (VEG) and nonvegetarian (NON) physically active college students. METHODS: A 50-item survey was collected in fall 2020 from college students in the United States, detailing demographic, anthropometric, exercise participation, food and supplement intake data. Adapted Sports Nutrition Knowledge Questionnaire and Eating Attitudes Survey (EAT) questions were included. Of 425, the 154 complete responses were analyzed in R using mean scores and frequencies where applicable. Independent sample t-tests and chi-square tests used significance level of p<.05. RESULTS: 114 females and 39 males completed the survey, among this 19 VEG and 135 NON VEG status was not significantly associated with EAT score, nor did it significantly differ by gender identity. Mean BMI = 25.41 for males and 23.2 for females. No difference in BMI was detected in males due to vegetarian status. BMI was significantly lower in female VEG than NON, though mean EAT scores were below the threshold for eating disorder risk. Supplement use among VEG (68%) was significantly higher than NON group (30%), though NON took more supplements than VEG (1.95 vs. 2.76). Most used supplements were multivitamin, vitamin B₁₂, and iron for VEG group and multivitamin, vitamin D, probiotic, fish oil, and creatine among nonvegetarian. Reasons for VEG diet include: health benefits (26.6%), ethical concerns (19.4%), environmental concerns (18.8%), weight control (12.3%), reducing risk of chronic disease (12.3%), improved athletic performance (9.1%), cost savings (3.2%) and other reasons (5.8%). EAT score was not significantly correlated with desire for weight control, although reducing risk of chronic disease was significantly correlated. CONCLUSION: Vegetarianism among the physically active college students differs from the general population. Data indicates health-promoting behaviors and awareness of dietary needs for overall health and athletic performance. SIGNIFICANCE/NOVELTY: Dietary and physical activity habits and attitudes formed in college have lasting impact throughout life. The stress imposed on college students with the sudden forced move-out and increased alone time from remote learning environments during COVID-19 has exacerbated risk of unhealthy behaviors at this period of emerging adulthood and independence. Thus, this study aims to describe prevalence and motivations of physically active college students’ nutrition behaviors, which may represent a cohort that is receptive to further knowledge and habit change.