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Physical Activity and Health Outcomes Among College Students Who Use Cannabis

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Recent changes in legality have made recreational cannabis use more common among college students. Cannabis is commonly perceived to improve sleep and increase sedentary behavior, but studies examining the relationship between cannabis use, physical activity and sleep outcomes are limited, particularly among college students. **PURPOSE:** To determine if there is a significant difference among college students who use cannabis and those that do not in self-reported daily physical activity levels, sleep quality, and blood pressure. **METHODS:** N=246 college students (65% female, 17-23 y) were recruited into a two-year longitudinal study measuring the cardiovascular effects of college lifestyle behaviors. Students completed the International Physical Activity Questionnaire (IPAQ), Pittsburgh Sleep Quality Index (PSQI) and study staff measured systolic and diastolic blood pressure. IPAQ and PSQI questionnaires were scored using standard procedures to calculate IPAQ total Mets and PSQI global score. Participants were queried on their recreational drug use which included asking the number of days they used cannabis/marijuana/THC products in the past 30 days. Those who reported using cannabis products at least one time were compared to those who reported zero days of use. T-tests were conducted to compare outcomes measures between groups and Pearson's correlation coefficients examined the relationship between frequency of cannabis use and outcomes among users. **RESULTS:** Cannabis users had slightly higher average physical activity (3728.2 ± 2639.2 METs) as opposed to non-users (3345.0 ± 2406.2 METs). On average, non-users' sleep score (6.83 ± 2.7), systolic blood pressure (114.9 ± 14.2 mm/Hg), and diastolic blood pressure (78.3 ± 9.2 mm/Hg) were slightly higher than those of cannabis users, respectively [(6.79 ± 2.5) , (113.2 ± 14.0 mm/Hg), (77.1 ± 9.3 mm/Hg)]. No significant differences were found between cannabis users and non-users for physical activity [total METs, $t(239) = -1.18$, $p = 0.24$], sleep quality [$t(1210) = 0.09$, $p = 0.93$], systolic blood pressure [$t(240) = 0.92$, $p = 0.36$], and diastolic blood pressure [$t(240) = 1.05$, $p = 0.30$]. Among users, frequency of cannabis use was not associated with physical activity [$r(128) = 0.027$, $p = 0.76$], sleep quality [$r(81) = 0.11$, $p = 0.34$] or blood pressure (systolic [$r(128) = 0.023$, $p = 0.70$], diastolic [$r(128) = 0.035$, $p = 0.69$]). **CONCLUSION:** Contrary to public belief, cannabis users did not differ from non-users in terms of their physical activity levels, sleep quality or blood pressure. Furthermore, outcomes were not affected by frequency of use. **SIGNIFANCE/NOVELTY:** These findings contribute to the growing body of literature on cannabis use and its potential health effects, emphasizing the need for continued research to comprehensively understand the impact of cannabis on various health domains among college populations.

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