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Cannabis Use and Lower Probability of COVID-19 Pandemic-related Stress in the United States



Introduction: The COVID-19 pandemic has affected the daily activities of many persons across the world, resulting in increased stressors. These stressors (i.e. pandemic related stress) may be classified as pandemic impact and psychosocial impact. Previous studies that have explored selected components of pandemic related stress have reported that the use of cannabis is associated with stress relief; and has been reported to mitigate boredom. However, stress is a complex construct, and the relationship between pandemic related stress with cannabis use status is unclear. We hypothesize that cannabis users experience lower pandemic related stress.

Methods: Participants included 1,201 adults who completed the COVID-19 Cannabis Health Questionnaire (CCHQ), a 25-item electronic self-report questionnaire from the COVID-19 Cannabis Health Study from March 2020 to March 2021. The sample was divided into two groups based on cannabis use status: those who reported using cannabis in the past 30 days and those that did not. Outcome variables included responses to questions related to pandemic impact and psychosocial impact. Chi-squared test was used for unadjusted comparisons of categorical variables by cannabis use status. Logistic models were employed to assess the relationship between measures of pandemic related stress by cannabis use status adjusting for sociodemographic variables: age, race/ethnicity, change in dose of cannabis since COVID-19, how often one was under the influence of psychoactive cannabis for 6 or more hours, and the use of cannabis to chronic health conditions.

Results: Mean age of respondents was 45.5 years (SD = 16.1); 51% self-identified as female, 48% male, and 1% as non-binary. The predominant self-identified race/ethnicity was non-Hispanic White at 75%, followed by 15% Hispanic, and non-Hispanic Black or African American at 6%. 96% of the sample were current cannabis users. There was no significant association found between pandemic related stress impact ($\chi^2 = 3.8$, $df(1)$, $p = 0.052$) by cannabis use status. Cannabis users experienced a significantly lower psychosocial impact in three domains: sleep ($\chi^2 = 10.4$, $df(1)$, $p = 0.001$), frustration or boredom ($\chi^2 = 4.9$, $df(1)$, $p = 0.027$), and a change in sexual activity ($\chi^2 = 7.2$, $df(1)$, $p = 0.007$). However, adjusting for race/ethnicity and age, there were no significant differences in pandemic related stress by cannabis use status. Age was a significant negative predictor (% change in odds) of experiencing pandemic impact (-2.4%), sleep impact (-2.8%), experiencing frustration or boredom (-3.6%), and experiencing a change in sexual activity (-4.0%).

Conclusions: Cannabis users and older individuals had a lower probability of reported pandemic related stress. Strategies to increase accessibility to cannabis may play an important role in mitigating stress in future natural disasters and pandemics.