

Prevalence of Cannabis use among individuals with a history of cancer in the United States

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Background: Rates of Cannabis use are increasing in the United States in the wake of a steady stream of state-level initiatives legalizing both medical and adult non-medical use of Cannabis. Patients with cancer have played a key role in advocating for legal access to Cannabis, but little is known about the links between cancer and Cannabis use or Cannabis-related beliefs. The present study used data from an annual national cross-sectional survey performed in the United States to characterize the relationships between cancer diagnosis and Cannabis use, perceived Cannabis risk, and perceived Cannabis accessibility.

Methods: Nationally representative data collected by the National Survey on Drug Use and Health (NSDUH) for 2015 – 2019 were acquired for analysis. Statistical analyses were conducted in SAS 9.4 (SAS Institute, Cary, NC) via procedures which utilized the NSDUH-derived weight, stratum, and cluster variables. Hypothesis tests were evaluated via logistic regression utilizing generalized logits with the goal of understanding the association between cancer diagnosis and other patient features on Cannabis use and perceptions of Cannabis risk and accessibility.

Results: Data for 214,505 adult respondents were available for analysis, including 5,677 (4.6%) individuals with a past cancer diagnosis (history of cancer but no cancer diagnosis in the last year) and 1,958 (1.6%) individuals with a recent cancer diagnosis (diagnosis within the last year). Cannabis use was less common in those with past (8.7%; 95% CI: 7.8, 9.5) or recent (8.4%; 95% CI: 6.6, 10.2) cancer diagnosis than in those without a history of cancer (16%; 95% CI: 15.8, 16.2). However, when analyses were stratified by age group, different patterns emerged. For example, those aged 18-34 years were more likely to report past Cannabis use if they had a past (34.6%; 95% CI: 29.6-39.7) or recent (34.4%; 95% CI: 26.3-42.6) cancer diagnosis than those without any history of cancer (25.5%; 95% CI: 25.1-25.9). Additionally, those aged 35-49 years were more likely to report recent Cannabis use if they had a past (17.1%; 95% CI: 14.4, 19.7) or recent (22.3%; 95% CI: 17.5, 27.1) cancer diagnosis than those with no history of cancer (13.9%; 95% CI: 13.5, 14.2). Younger patients with a history of cancer felt that Cannabis was more accessible and less risky than those in the same age groups without a history of cancer (Figure 1). There were no differences in Cannabis use prevalence or perceived risk in older individuals (age ≥ 50) by cancer history, but those with cancer in this age group perceived Cannabis as somewhat more difficult to access.

Conclusions: Cancer status is linked to Cannabis use differentially by age, with middle-aged people with cancer using Cannabis at higher rates than their age-matched peers and higher rates of past Cannabis use in younger people reporting a Cancer history. Similarly, age-related patterns are seen with regard to perceptions of Cannabis risk and accessibility that also relate to cancer history. Age should be considered in future studies of Cannabis and cancer, and the importance of risk perception places particular emphasis on the careful provision of cancer patient education within the bounds of available quality evidence. Policy initiatives or

interventions designed to provide quality information on Cannabis use, especially among people with cancer, may be warranted.

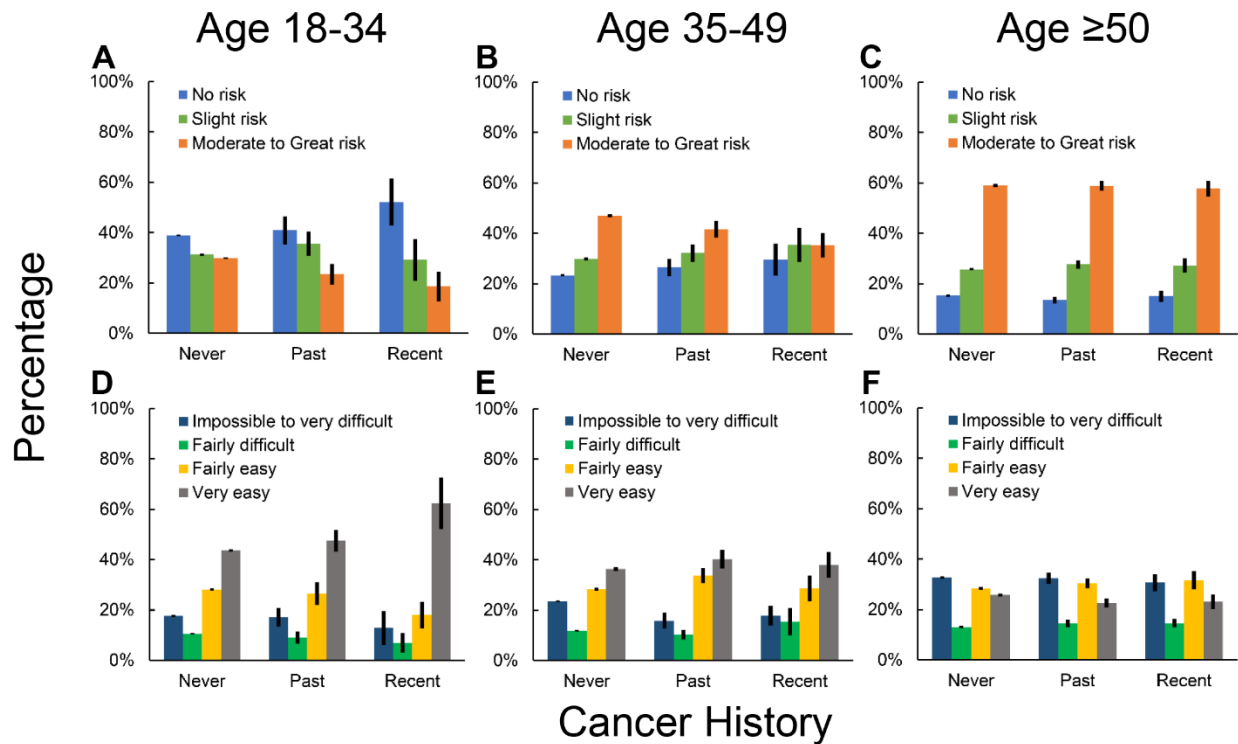


Figure 1. Perceived Cannabis Risk and Perceived Difficulty Associated with Cannabis Acquisition. Respondent assessment of the risk of monthly Cannabis use by cancer history presented for three age groups: (A) 18-34, (B) 35-49, and (C) ≥50. Respondent assessment of the ease or difficulty associated with acquisition of Cannabis by cancer history is presented for three age groups: (D) 18-34, (E) 35-49, and (F) ≥50.