Factors Associated with Concurrent Use of Prescription Benzodiazepines and Cannabis in Anxiety: A Cross-Sectional Survey



Vanessa Quinn, PharmD Candidate¹; Amie J. Goodin, PhD, MPP²; Jungjun Bae, MS²

¹College of Pharmacy, University of Florida; ²Department of Pharmaceutical Outcomes & Policy; Center for Drug Evaluation & Safety, University of Florida

Introduction

- Cannabis has been presented as a potential therapy option for many health conditions, including anxiety.
- There is limited conclusive evidence regarding safety and effectiveness of cannabis when used as adjuvant treatment for anxiety.
- There is limited data regarding factors linking medical cannabis and concurrent prescription benzodiazepine use.
- There are some safety concerns when treating anxiety with cannabis, as acute anxiety is the most common side effect of cannabis use (Zuardi, et al.)

Objective

Identify factors associated with concurrent medical cannabis and prescription benzodiazepines in people with anxiety.

Methods

- Study Design: Cross-sectional survey
- Sampling strategy: Convenience sampling from Florida clinics
- Timeframe: May 2022-May 2023
- Measures: Cannabis use behaviors, Rx benzodiazepine use, sociodemographic factors
- Analysis: Logistic regression with robust standard errors (95% CI), where the dependent variable was Rx benzodiazepine use

Results

- 71% of respondents had a diagnosis of anxiety (451/632).
- Among those with anxiety, 88% reported cannabis use 4 or more times per week.
- On average, respondents began using cannabis at 20 years old (SD=10).
- Current age was the only factor significantly associated with concurrent use of Rx benzodiazepine (OR=1.02; CI 1.00-1.03).



Socioeconomic Factors and Cannabis Use Behaviors Amongst Respondents with Anxiety

Effect	Odds Ratio	95% CI	
Age*	1.016	1.000	1.032
Age at first use	0.997	0.977	1.018
Sex at birth	1.103	0.699	1.740
Race/Ethnicity	0.931	0.742	1.167
Health insurance status	1.537	0.791	2.990
Veteran status	1.358	0.636	2.899
Cannabis use 2-3 times a week	0.140	0.017	1.162
Cannabis use 2-4 times a month	0.853	0.100	7.271
Cannabis use 4 or more times a week	0.943	0.163	5.442

References

- Purcell, C., Davis, A., Moolman, N., & Taylor, M. S. (2019, September 23). Reduction of Benzodiazepine Use in Patients Prescribed Medical Cannabis. liebertpub.com. https://www.liebertpub.com/doi/10.1089/can.2018.0020
- Crippa, J.A., Zuardi, A.W., Martín-Santos, R., Bhattacharyya, S., Atakan, Z., McGuire, P. and Fusar-Poli, P. (2009), Cannabis and anxiety: a critical review of the evidence. Hum. Psychopharmacol. Clin. Exp., 24: 515-523. https://doi.org/10.1002/hup.1048.

Overall, older adults were **more likely** to have concurrent Rx
benzodiazepine and cannabis use
than younger adults with anxiety.

Discussion & Conclusion

- Rx benzodiazepine use was prevalent among this sample of cannabis users with anxiety.
- A previous study has found that using medical cannabis for 2 months led to a reduction in benzodiazepine use in ~30% of patients (Purcell, et al., 2019).
- In future studies, we will investigate if similar reductions in benzodiazepine use occurred in those using concurrent Rx benzodiazepines and cannabis.
- Safety measures may be adapted to older adults due to the higher prevalence of concurrent use of cannabis and Rx benzodiazepines.
- <u>Limitations</u>: These findings may not be generalizable due to this study's population.

Contact Email: amie.goodin@ufl.edu

