

Age, Symptom Management, and Cannabis Use Disorder Risk: A Cross-Sectional Study

INTRODUCTION

- Cannabis is one of the most widely consumed psychoactive substances, with legalization expanding across the United States.
- Despite significant advances in understanding cannabis use disorder (CUD), critical gaps remain in identifying risk factors, including specific patterns of use.
- Understanding symptom management through cannabis use and its relationship with CUD risk is increasingly important as states continue to legalize both medical and non-medical use.
- This study investigates the prevalence and severity of CUD among adults, examining consumption behaviors, symptom management practices, and associated risk factors.

METHODS

- The Geisinger Institutional Review Board approved the study, including the survey questions, flyers, and information for distribution.
- An anonymous online survey, adapted from a JAMA Network Open survey, was conducted from June to December 2024 via Facebook, Reddit cannabis communities, and Pennsylvania's Medical Marijuana program.¹
- Participants who reported cannabis use within the past year answered a series of 15 questions based on the 11 DSM-5 diagnostic criteria to determine their potential CUD status.

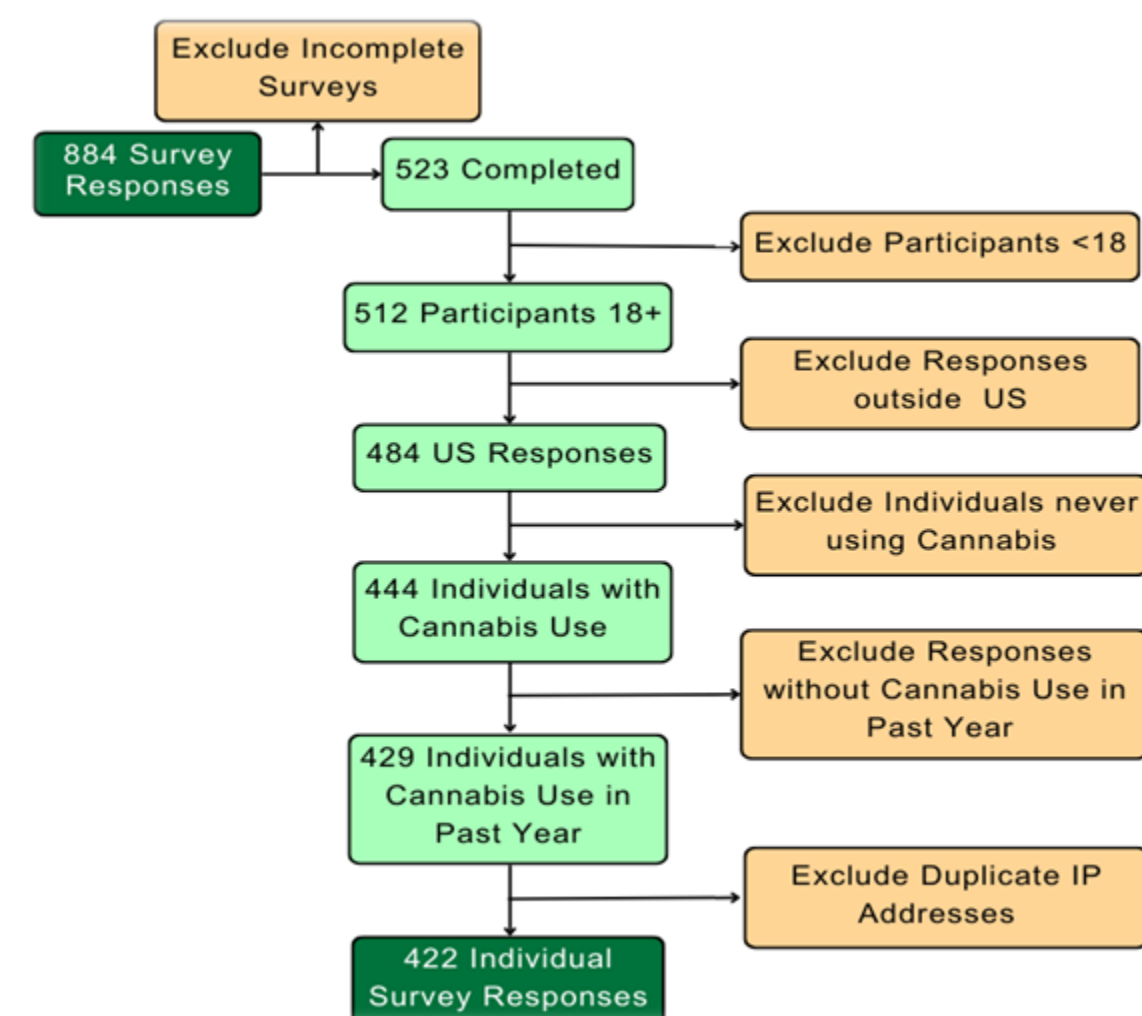


Figure 1: Exclusion Criteria for Survey Analysis

RESULTS

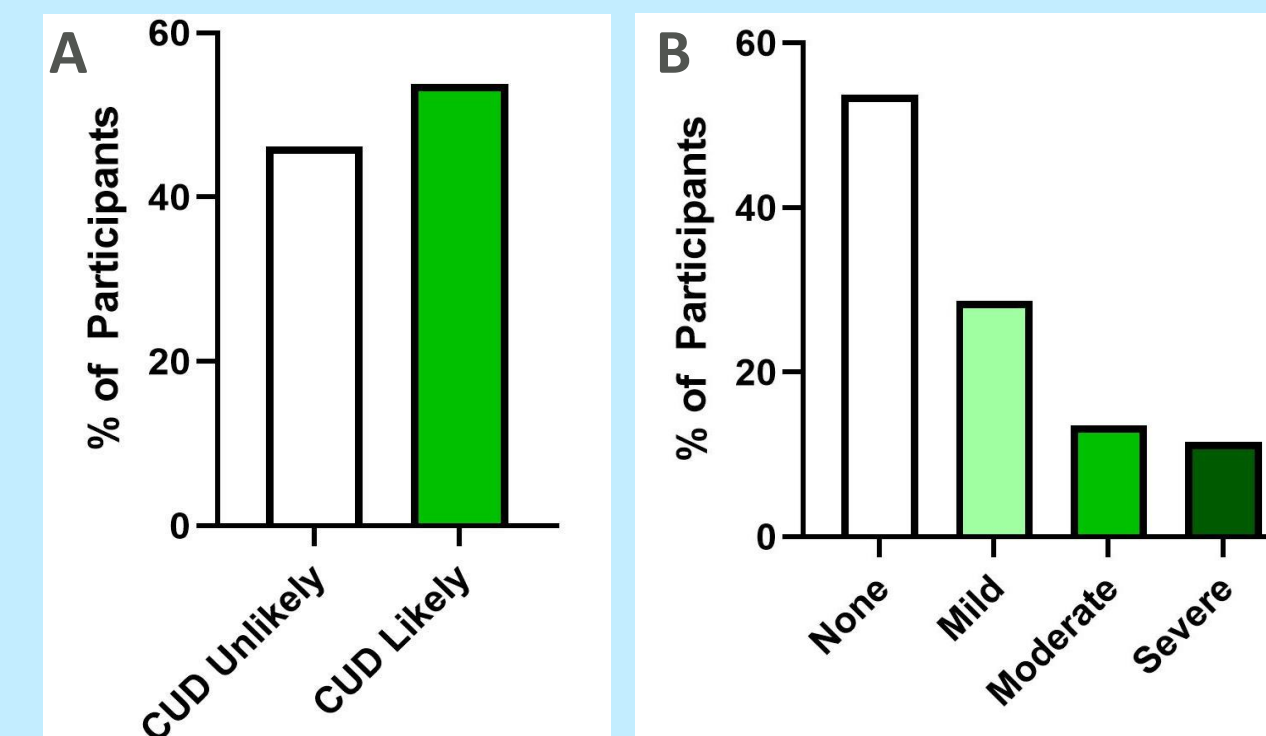
Table 1: Demographic Distribution of Survey Participants

	CUD Unlikely (n=195)	CUD Likely (n=227)	Total (N=422)	P Value
Gender				
Female	46.2%	53.8%		
Male	47.2%	37.9%	50.7%	0.031
Other	49.3%	5.3%	4.3%	
Prefer not to disclose	3.1%	3.1%	1.9%	
Age				
18 - 25	6.2%	15.0%	10.9%	<0.0001
26 - 35	14.4%	33.5%	24.6%	
36 - 45	24.6%	19.8%	22.0%	
46 - 60	30.2%	24.7%	27.3%	
61 - 80	24.6%	7.0%	15.2%	
Regularly Drinks >5 Drinks				
Yes	4.6%	18.9%	12.4%	<0.0001
No	95.4%	81.1%	87.6%	
# of Other Substances				
0	70.3%	55.1%	62.1%	<0.0001
1	24.1%	23.8%	23.9%	
2+	5.6%	21.1%	14.0%	
Symptoms				
Pain	74.9%	74.0%		
Muscle spasm	30.8%	22.9%		
Nausea or vomiting	27.7%	43.2%		
Sleep	70.3%	70.0%		
Stress	65.1%	70.9%		
Appetite	26.2%	35.7%		
Worry or anxiety	64.1%	72.2%		
Depression or sadness	44.6%	64.3%		
Focus or concentration	32.8%	32.2%		
Other symptoms	20.5%	14.5%		

Table 1:

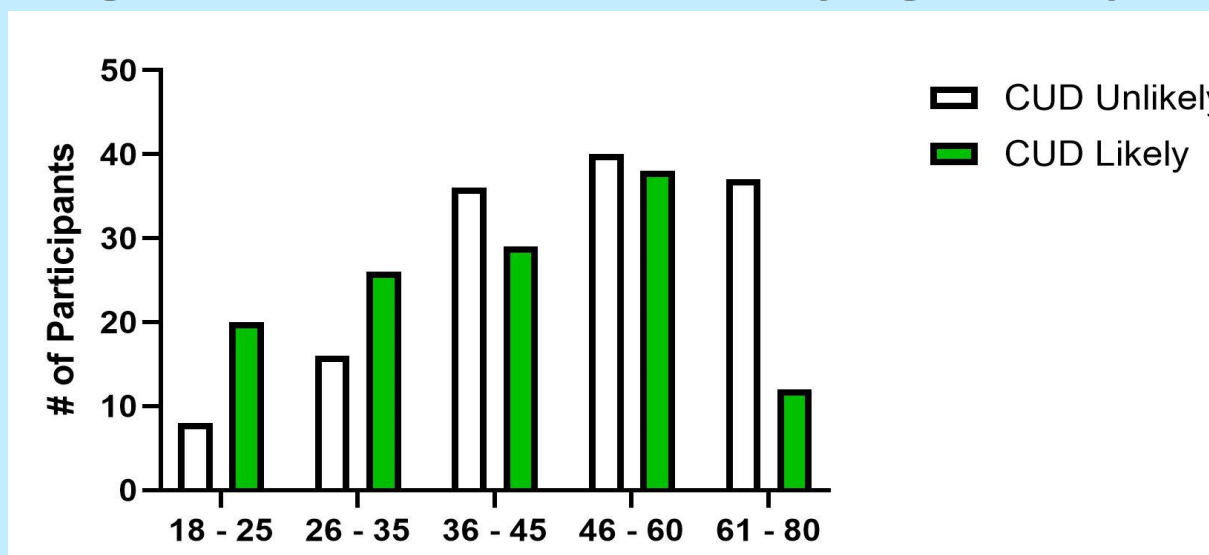
- The sample was nearly evenly split by gender (50.7% male); predominantly White (80.8%).
- Age was well distributed among the 5 age groups with most participants between 26 and 60.
- The majority were high school graduates and obtained some form of higher education.
- Most were either married or single and owned their place of residence.
- The majority used cannabis daily or almost daily (82.5%), for both medical and non-medical reasons (58.1%).
- Most common methods of use were vaporizing (69.4%), smoking (66.9%), and eating (60.2%).

Figure 2: Likelihood and Severity of CUD



- Figure 2A: Participants were classified by CUD likelihood based on answers to questions utilizing the DSM-5 criteria.²
- Figure 2B: Participants with ≥ 2 criteria were labeled as likely having CUD and further stratified by severity (2-3 criteria=mild, 4-5 criteria=moderate, 6-11 criteria=severe).²

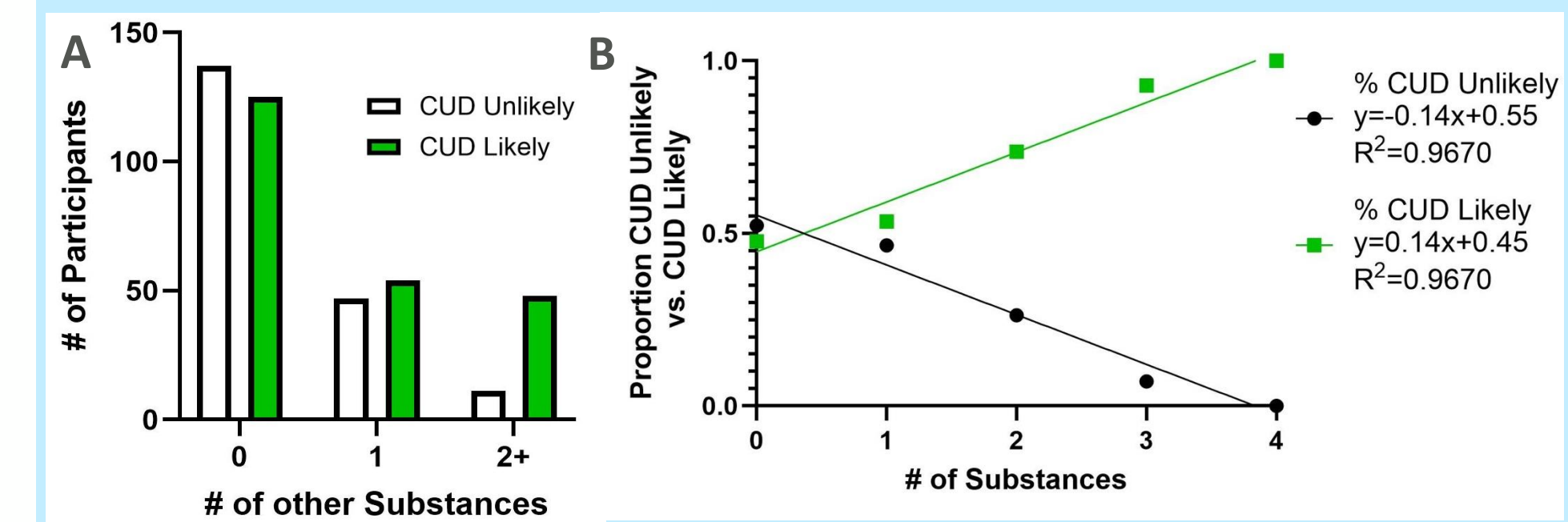
Figure 3: Likelihood of CUD by Age Groups



- Figure 3: Participants younger than 35 showed a higher likelihood of having CUD whereas participants 36 and older demonstrated a lower likelihood of CUD.

RESULTS CONT.

Figure 4: Influence of Polysubstance Use on CUD



- Figure 4A: Participants using more substances other than cannabis demonstrated a higher likelihood of CUD. Other substances included current tobacco, vape, and oral tobacco use as well as excessive alcohol use (>5 drinks in one setting). 0 other substances means that participants only use cannabis.
- Figure 4B: A strong linear relationship between CUD and the number of additional substances used was found.

CONCLUSION

- These findings demonstrate that younger age is a significant risk factor for CUD, independent of polysubstance use.
- Compounding effects of other substances further increase CUD risk, with a strong linear relationship observed between additional substance use and CUD likelihood.
- Mental health symptoms were particularly prominent among individuals likely to have CUD, suggesting a potential self-medication pattern.
- Our findings emphasize the need for developing age-specific interventions and comprehensive screening approaches, particularly for young adults managing mental health symptoms through cannabis use.
- Further research should explore the causal relationships between symptom management, age, and CUD development to inform targeted prevention strategies.

AUTHORS & DISCLOSURES

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 A. Nothing to disclose

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