

# Marijuana Use and Mental Health among Young Adults



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## Abstract

Marijuana use among young adults has been increasing over the years, and the number of young adults using marijuana daily or almost daily has increased significantly. Furthermore, the number of young adults diagnosed with marijuana use disorders has substantially increased in recent years. The current study aimed to examine the association between marijuana use and depression and anxiety among young adults. This study used the National Survey on Drug Use and Health data (2014), and the final sample was 13,069 adults between 18 and 25 years of age. A series of Chi-Square tests were conducted. The result showed a statistically significant relationship between ever using marijuana and mental illness (depression and anxiety). Participants who ever used marijuana were more likely to have ever had depression or anxiety than participants who never used marijuana.

## INTRODUCTION

The purpose of the research was to examine the relationship between marijuana use and mental health (depression and anxiety) among individual between the ages of 18 and 25.

### Hypotheses

- There will be a statistically significant relationship between marijuana use and depression.
- There will be a statistically significant relationship between marijuana use and anxiety.

## LITERATURE REVIEW

### Marijuana Use

- According to the Substance Abuse and Mental Health Services Administration, in 2019, young adults aged 18-25 who used marijuana increased from 29.8 percent, roughly around 9.2 million people in 2002 to 35.4 percent or 12.0 million in 2019.
- Studies have shown that those who use marijuana are more likely to experience poor mental health (Buckner, et al., 2011).

### Anxiety

- The dependence rate on a lifetime currency with those individuals who suffer from social anxiety disorder (SAD) is more than five times the majority population (Buckner et al., 2008).

### Limitations

- The current study will address those gaps in gender by providing studies that require the test for all participants.
- This will allow researchers to get an equal estimate on a study involving all participants and decrease gaps.
- The inability to locate individuals with depressive and cannabis abuse symptoms during the follow-up period may have resulted a lack of research

## Materials & Methods

### Research Design and Data Collection Procedures

- The current study is a secondary analysis of the data from the National Survey on Drug Use and Health, 2014 (ICPSR 36361).
- The original study is cross-sectional, which involves data from a population at one specific point in time.
- The current study is also a cross-sectional study.

### Sample and Sampling Method

- Participants identified between the age of 18 years old (15.2%), 19 years old (7.0%), 20 years old (4.6%), 21 years old (3.2%), 22 years old (1.7%), 23 years old (0.9%), 24 years old (0.4%), and 25 years old (0.1%)
- Employment status was calculated within the study, full-time participants (80.4%) and part-time participants (19.6%). When participants were asked about full-time college enrollment, those aged 18-25 (24.3%).

### Measures

- Marijuana use was measured using one question, "Have you ever smoked part or all of marijuana?" The response option was either "yes" or "no".
- Depression was measured using a single item question asking whether participants had depression in lifetime.
- Anxiety was measured using a single item question asking whether participants had anxiety in lifetime.
- Please see Table 2 for study variable information.

## Results

- A Chi-Square test was used to determine whether there is a relationship between ever using marijuana and ever had depression or anxiety.
- The Chi-Square test was used to compare frequency of lifetime anxiety and ever using marijuana. The result showed a statistically significant relationship,  $\chi^2(1) = 245.40, p < .001$ . As shown in Table 3, 16.2% have used marijuana and have experienced anxiety, while 7.2% have anxiety without ever using marijuana.
- The second Chi-Square test was conducted to test the relationship between depression and ever using marijuana. The findings on depression informed those who use marijuana have a greater percentage of depression than those individuals who do not use marijuana ( $\chi^2(1) = 238.77, p < .001$ ). Among participants who ever used marijuana, 17.2% had lifetime depression. However, among participants who never used marijuana, only 8.0% had lifetime depression.

Table 1

Sample Characteristics (N=13,069)

Characteristic	f	%
Gender		
Female	6266	47.9
Male	6803	52.1
Race Ethnicity		
Non-Hispanic White	7,169	54.9
Non-Hispanic African American	1,765	13.5
Non-Hispanic Native American	248	1.9
Non-Hispanic Pacific Islander	79	0.6
Non-Hispanic Asian	653	5.0
Non-Hispanic more than one race	519	4.0
Hispanic	2,636	20.2
Education		
Less than high school	1,935	14.8
High school graduate	4,655	35.6
Some college	4,560	34.9
College graduate	1,919	14.7
Employed and working		
Full-time	4,723	80.4
Part-time	1,151	19.6

Table 2

Study Variables

Variables	f	%
Independent Variables		
Ever used Marijuana		
Yes	6,939	53.1
No	6,125	46.9
Dependent Variables		
Lifetime Anxiety		
Yes	1,541	12.0
No	11,305	88.0
Lifetime Depression		
Yes	1,662	12.9
No	11,184	87.1

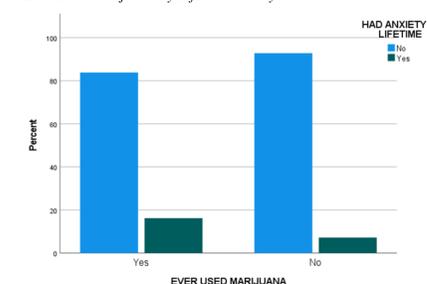
Table 3

Occurrence of Depression or Anxiety with and without Marijuana Use

	Ever used marijuana		Never used marijuana	
	n	%	n	%
Depression				
Yes	1,180	17.2	482	8.0
No	5,673	82.8	5,509	92.0
Anxiety				
Yes	1,110	16.2	431	7.2
No	5,743	83.8	5,560	92.8

Figure 1

Ever Used Marijuana By Lifetime Anxiety



## Discussion

### Major Findings

- There was a statistically significant relationship between ever using marijuana and ever had mental illness (depression and anxiety).
- This results suggest that participants who ever used marijuana were more likely to have ever had depression or anxiety than participants who never used marijuana.

### Strengths

- Big sample size
- Representative sample of US population

### Limitations

- Use of a single item questions to measure study variables
- Cross sectional study design

### Practice Implications

- The findings are important for social work practice because it allows professionals to understand and acknowledge the different limitations and barriers the usage of marijuana has on individuals ages 18-25.
- Study findings can be used in providing education about marijuana and mental health, targeting high school students in classroom environments.
- There can be presentations of interventions that can be done in college settings. These can be done during freshman orientations that can provide welcome packages.
- The college student center can have basic information for those students in passing. There can also be in depth information provided by social workers to those students who want and need more guidance.

## REFERENCE

- Buckner, Julia D, Heimberg, Richard G, & Schmidt, Norman B. (2011). Social anxiety and marijuana-related problems: The role of social avoidance. *Addictive Behaviors, 36*(1), 129-132. <https://doi.org/10.1016/j.addbeh.2010.08.015>
- Buckner, J., Schmidt, N., Lang, A., Small, J., Schlauch, R., & Lewinsohn, P. (2008, February). Specificity of social anxiety disorder as a risk factor for alcohol and cannabis dependence. Retrieved November 09, 2020, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2254175/>

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