

An Initial Examination of Social Anxiety and Marijuana Use Among College Students

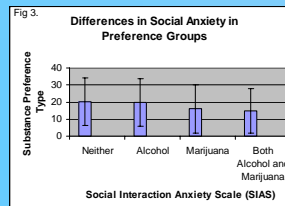
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Background and Significance

- ❖ Social anxiety disorder (also known as social phobia) is the fourth most prevalent disorder in the United States (12.1%) (Kessler et al., 2005) and leads to significant distress and interference. The distress and avoidance associated with social anxiety disorder may negatively impact the college student's ability to succeed. For instance, Stein et al. (2000) found that 1 in 5 of their students with social phobia felt that social phobia significantly interfered with their education and nearly half reported dropping at least one class due to their fear.
- ❖ In addition, socially anxious students may avoid social situations or choose to cope with their anxiety in maladaptive ways.
 - ❖ Coping with their fears in a maladaptive way, such as using substances, is often easy and socially permissible, as these substances are readily available to the individual.
 - ❖ Many studies have linked alcohol misuse with social anxiety; in fact, social anxiety has been found to predate most alcohol problems (e.g., Kushner et al., 2000), however, there are mixed results concerning social anxiety and alcohol use (e.g., Eggleston et al., 2004; Ham & Hope, 2004).
 - ❖ Recent work in our lab examining a primarily Hispanic sample found a negative correlation between social anxiety and drinking (Ham et al., 2005). It is possible that students may be using an *alternative substance* to cope with social anxiety other than alcohol, such as marijuana.
- ❖ Marijuana is the most common illicit drug used in the United States and the overall rates increased from 1992 to 2002 (Compton et al., 2004).
 - ❖ Compton et al. (2004) found that the past year prevalence rates indicated that 1.5% of the population had a marijuana use disorder
 - ❖ The 2004 Florida Substance Abuse Survey found that 18% of middle and high school students in Miami-Dade County use marijuana, making it the third most commonly used substance, following alcohol and cigarettes.
- ❖ Given the high local and nationwide rates of marijuana use as well as the negative effects, consideration of the relationship between marijuana and social anxiety is warranted. A literature review reveals that little research has examined marijuana use and anxiety, with none found specifically examining social anxiety or using marijuana to cope with social anxiety.
- ❖ Thus, the current study was a preliminary examination of the rates of marijuana use in association with social anxiety.

Results

- A preliminary correlation assessed the relationship between marijuana use in the past six months and social anxiety. It was found that frequency of marijuana use was negatively correlated with social anxiety ($r = -.15, p < .01$).
- It was also found that those who used marijuana ($N = 108$; $M = 16.35, SD = 12.63$) in the past six months reported significantly lower social anxiety than those who abstained ($N = 207$; $M = 20.56, SD = 14.26$) ($F(1, 313) = 6.66, p < .01$).
- A one-way ANOVA indicated that the four preference groups (alcohol, marijuana, both, or neither) did not differ in mean social anxiety ($F(3,308) = 1.90, p = .13$). The means and standard deviations for the four groups are reported in Fig 3.



Discussion

- As research in social anxiety and marijuana use is relatively new, this study was a preliminary investigation in a diverse university.
- It was found that those individuals who used marijuana endorsed less symptoms on of social anxiety than those who did not use marijuana in the past six months.
- As this was a predominately Hispanic sample it could be that those who used marijuana were not as anxious as those who had not used in the past six months. Research has found that anxiety sensitivity is negatively correlated with cannabis use (Norton et al., 1997; Stewart et al., 1997) and Hispanic samples have been found to report higher levels of anxiety sensitivity than their European American counterparts (Novy et al., 2001).
- Thus, cultural factors could in fact play a part in marijuana use and more research is needed focusing on anxiety as a protective factor against marijuana use in diverse cultures.
- Additionally, there was not evidence that socially anxious students may prefer marijuana over alcohol in social situations to relieve social anxiety. Thus, it does not seem that the weak negative correlation between drinking and social anxiety among this sample of college students could be explained by a preference for a different substance.
- However, the majority of the students reported no or little marijuana use and preferred alcohol or neither alcohol or marijuana.
- This is interesting as previous research has found that cannabis use was only associated with social anxiety when controlling for an alcohol use disorder, thus the relationship was not accounted for by problematic alcohol use (e.g., Buckner et al., 2006).
- Given the exploratory nature of this study, the measurement of marijuana use was not thorough. To rule out the association between social anxiety and marijuana use, this finding should be replicated using empirically validated measures of marijuana use and abuse.

Participants

- Participants were 336 undergraduate student volunteers who completed a questionnaire packet at Florida International University. See Table 1 for a summary of the sample.

Measures

- **Social Interaction Anxiety Scale (SIAS)**
 - The SIAS is a 19 item self-report questionnaire designed to measure fears associated with social interactions (Mattick & Clarke, 1989).
- **Alcohol Use Identification Test (AUDIT)**
 - This measure is a 10-item questionnaire intended to assess hazardous alcohol use (Babor et al., 1992)
- **Past Six Month Marijuana Use**
 - Respondents estimated frequency of marijuana use in the past six months using an 8-point scale ranging from *no marijuana use to using more than once per day*.
- **Preference for Substance Type**
 - An item was created to assess preferences for alcohol or marijuana. Respondents were asked, "If both alcohol and marijuana were available, would you most likely choose to drink *alcohol*, smoke *marijuana*, neither, or both?"

Table 1.
Summary of Sample Demographic and Study Variables (N = 336).

Gender	
Male	103 (31.5%)
Female	224 (68.5%)
Age	
18	118 (35.1%)
19	102 (30.4%)
20	38 (11.3%)
21	23 (6.8%)
22	15 (4.5%)
23-25	24 (7.1%)
26-30	8 (2.4%)
30+	7 (2.1%)
SIAS	$M = 19.03 (SD = 13.85)$
AUDIT	$M = 6.47 (SD = 5.90)$

Method and Descriptive Statistics

- When participants were asked about their past 6 month marijuana use it was found that
 - 64% reported no past 6 month use
 - 13.4% reported 1-2 times of usage
 - 6.8% reported 3-5 times of usage
 - 4.8% reported using 1-2 per month
 - 1.5% reported using 1 time a week
 - 4.2% reported using 2 or more times a week
 - 1.8% reported daily usage
 - 1.2% reported using more than once per day
- When asked about preference of alcohol, marijuana or both in a context where both substances were accessible it was found that
 - 27.1% reported wanting neither
 - 52.1% reported a preference for alcohol
 - 7.4% reported a preference for marijuana
 - 10.4% reported a preference for both alcohol and marijuana

Fig 2.

