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The Relationship between Anxiety and Depressive Symptoms and Substance Misuse (in Terms of Marijuana, Illicit Drugs, Tobacco, and Alcohol) in College Students

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The prevalence of substance use in pop culture increases the popularity and appeal among college students. These substances are also relatively easily accessible, widely used, and almost normalized in college settings, making this a risky period for college students.

- In college students, marijuana usage is at a historic high (National Institute on Drug Abuse, 2019).
- Nicotine vaping has almost tripled among college students, going from 6.1% to 15.5% (National Institute on Drug Abuse, 2019).
- 36.4% of college students suffer from depression, and 41.6% of college students experience anxiety (American Psychological Association, 2013).
- People who tend to suffer from social anxiety disorder often misuse substances, particularly alcohol (Anxiety and Depression Association of America, 2019).

This project investigates the correlation between substance use and mental health.

- It is hypothesized that there is a correlation between marijuana and alcohol usage and higher anxiety symptoms in college students and a correlation between college students who are poly-substance users and higher depressive symptoms.

Poly-substance users (alcohol, marijuana, and another substance users) had the highest sum anxiety scores, and the highest sum depressive scores

As a result of the post-hoc Tukey Test, the Poly-substance group had significantly higher anxiety symptoms (p = 0.015) and depressive symptoms (p = 0.020) than the Alcohol Only group. The Poly-substance group also had more depressive symptoms than the Alcohol and Nicotine group (p=0.001).

The results show that Poly-substance users show higher anxiety and depressive symptoms, which shows the correlation between substance misuse and negative mental health effects. Possible explanations could be that either using the substances caused negative health effects to occur in otherwise healthy students, or that pre-existing mental health problems lead students to misuse substances as a coping mechanism.

The results compare to Walters et al. (2018) who found that college students experienced depressive symptoms when they used cannabis, tobacco, amphetamines, cocaine, sedatives, and hallucinogens. Likewise, Stowell et al. (2019) found positive, significant correlation between CESD-R depression and binge drinking.

A limitation encountered was sample sizes. However, some strengths included racial diversity of the sample, an urban, diverse population, information for multiple substances, and longitudinal analysis. Spit4Science could improve on this for future studies by advertising the study more, and possibly providing more incentives for potential participants.

Spit4Science could implement programs and educate on how to deal with anxiety and depressive symptoms, how to get treatment, and tips to help quit. This could be done with the help of a future study, which would enhance our understanding of the negative effects of substance misuse.

The relationship between anxiety and depression and substance misuse (Marijuana, Illicit Drugs, Tobacco, and Alcohol) in College Students

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Introduction

- The prevalence of substance use in pop culture increases the popularity and appeal among college students. These substances are also relatively easily accessible, widely used, and almost normalized in college settings, making this a risky period for college students.

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- It is hypothesized that there is a correlation between marijuana and alcohol usage and higher anxiety symptoms in college students and a correlation between college students who are poly-substance users and higher depressive symptoms.

Methods

- The groups are from S4S 2014 freshman year cohort and if they have ever used Alcohol, Nicotine (a collapsed list of 5 types of nicotine), Marijuana, and/or Illicit Drugs (cocaine, opioids, and stimulants).
- Separate sum scores for anxiety and depressive symptoms were put together by adding up the 5-point Likert scale responses to four questions each for anxiety and depressive symptoms (adapted from the SCL-90), to get a total score for each (Derogatis, Lipman, & Covi, 1973).
- Two ANOVA tests were run one for anxiety symptoms and one for depressive symptoms- as were Tukey post hoc tests in SPSS.

Conclusion

- As a result of the post-hoc Tukey Test, the Poly-substance group had significantly higher anxiety symptoms (p = 0.015) and depressive symptoms (p = 0.020) than the Alcohol Only group. The Poly-substance group also had more depressive symptoms than the Alcohol and Nicotine group (p=0.001).
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