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### Effect of Link Between Substance Use and Poor Diet on Emotional Regulation

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# Effect of Link Between Substance Use and Poor Diet on Emotional Regulation

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HWS 332  
Cure

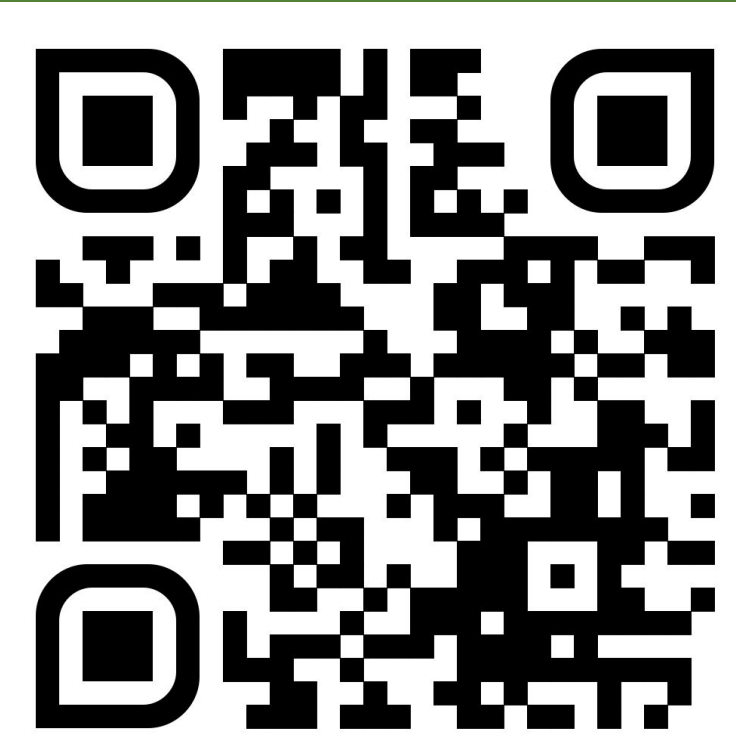
## Abstract

- Substance use (alcohol, illicit ADHD medication, marijuana, and cigarettes) have been linked to mental health issues such as depression and anxiety, as well as unhealthy habits (poor eating and limited exercise)
- We studied the correlation between substance use and emotional regulation and substance use and healthy habits (healthy eating and exercise)
- How is substance use related to poor emotional regulation and unhealthy habits?  
Using a short survey, we collected data on the substance usage, emotional status, as well as eating and exercise habits of 207 individuals
- We found a significant correlation between substance use, poor emotional regulation, and unhealthy habits

## Introduction

- The purpose of our study was to determine the link between substance use, poor diet and emotional regulation.
- As drug use increases, memory capacity decreases and unhealthy eating behaviors will increase. (Cappelli 2018)
- The mesolimbic dopamine reward system plays a major role in the link between substance use, diet, and their overlapping neurobiology. (Coker et al. 2021)
- Evidence has shown that combined alcohol consumption and high fat diet intake is correlated with an increase in anxiety. (Coker et al. 2021)
- Essential micronutrients have a very crucial role in the control and regulation of mood by the brain, and deficiencies of these due to poor nutrition can lead to several mental health disorders including depression. (Mahboub et al. 2021)

## References



## Methods

- A survey looking at substance use, lifestyle choices, and emotions/personality was shared via social media
- Data analyzed was from 207 participants
- Data was coded and analyzed using Pearson Correlation Coefficient in SPSS version 28.0.

## Results

\*\* A total of 207 participants completed the survey

Figure 1- Age:

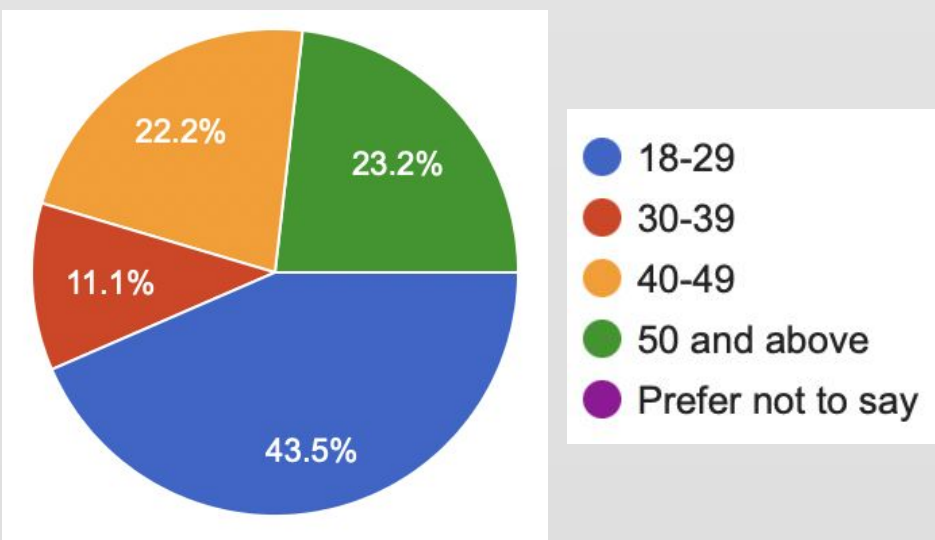


Figure 3-ADHD Medication Usage:

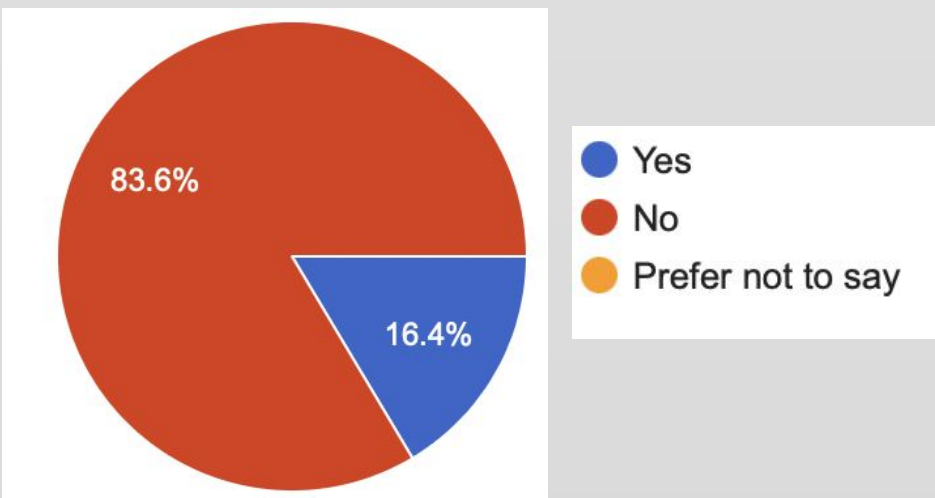


Figure 5- Alcohol Usage:

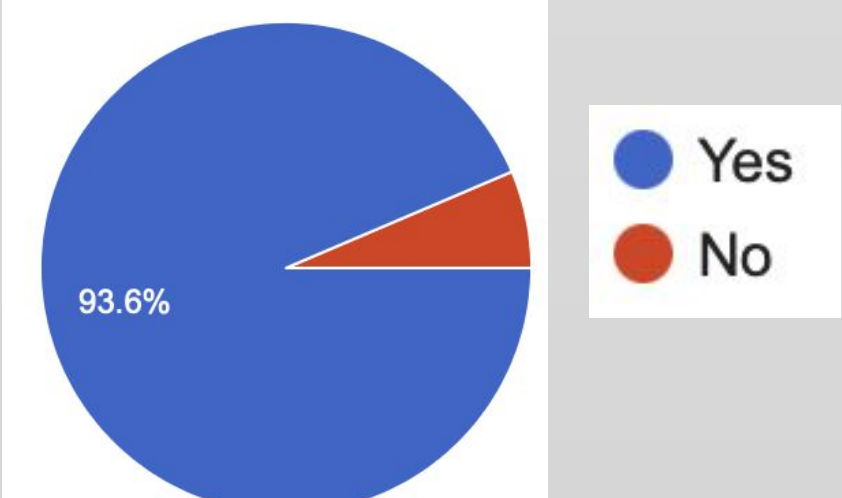


Table 1- Substance Usage and Correlative Results

Substance	Relationship	Correlation (r)
Alcohol	Viewing yourself as emotionally stable	-0.143*
ADHD Medication	Viewing yourself as emotionally stable	-0.148*
Cigarettes	Feeling careless/disorganized	0.168
Marijuana	Viewing oneself as anxious/easily upset	.147*

Figure 2- Gender:

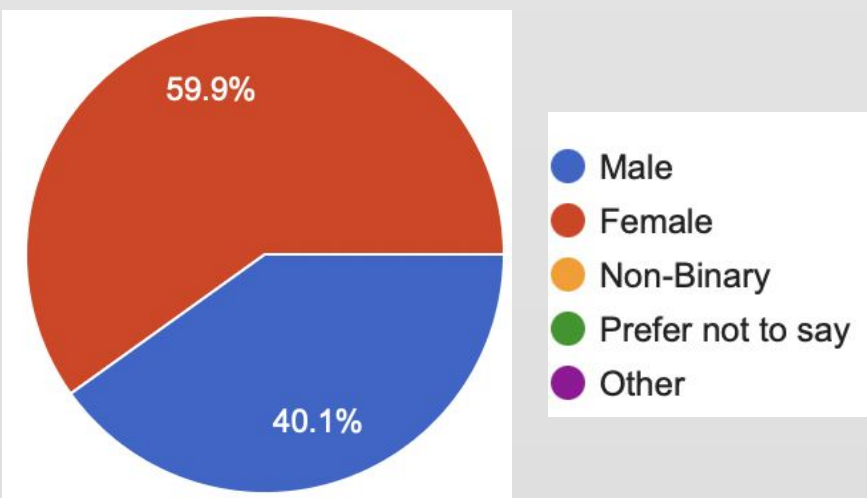


Figure 4- Marijuana Usage:

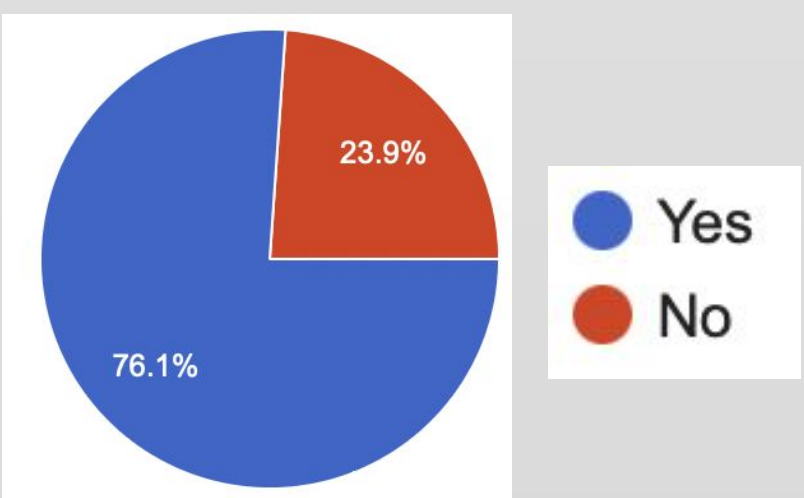


Figure 6- Cigarette Usage:

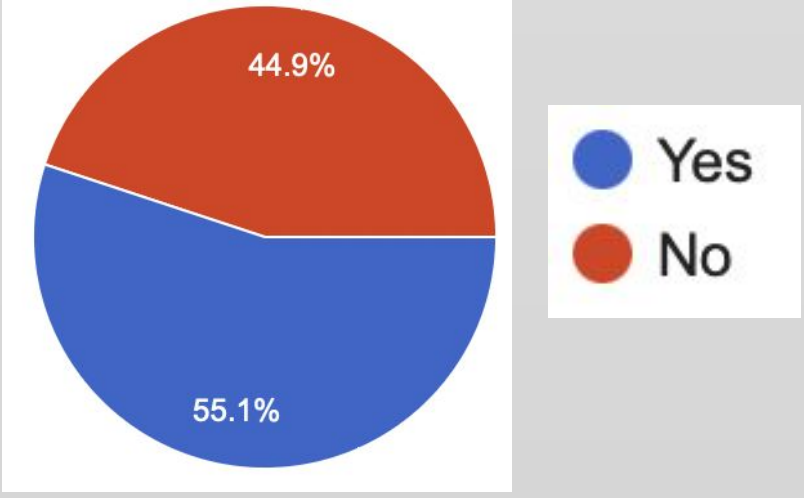


Table 2: Diet and Correlative Results

Relationship	Correlation (r)
Correlation between feeling anxious and eating fast foods	0.335**
Correlation between viewing yourself as emotionally and frequent fast food consumption	-0.281**
High alcohol consumption and eating breakfast on a daily basis	-0.211**
How much you eat protein a week and being easily upset/ feeling anxious	-0.140*
How many times you eat fast food a week and feeling careless/disorganized	0.219**

## Discussion & Conclusion

*Our findings show...*

- A negative correlation between viewing yourself as emotionally stable and frequent use of alcohol or ADHD medications.
  - A relationship between feeling anxious and eating fast foods.
  - A relationship between smoking cigarettes and feeling careless/disorganized.
  - Negative correlation between how much protein you eat per week and being easily upset/feeling anxious
- What does this mean?*
- Our findings support that the link between substance use and poor diet have a negative effect on emotional regulation. This can be expected because our body is not getting the proper nutrients and minerals it needs for optimal physical and mental health.
  - Our findings also support that there is a link between substance use and unhealthy eating behaviors. Working memory capacity is low and implicit associations are high, there will be increased levels of high sugar/fat snack and drink consumption(Capelli 2018)
  - Consumption of alcohol and a high fat diet can increase binge behaviors and can cause negative metabolic effects due to their overlapping central mechanisms. ( Capelli 2018)
  - One's view of emotional stability was poor when using substances frequently. These unhealthy behaviors like smoking,drinking, taking unprescribed drugs can affect brain function, which then can lead to emotional dysregulation.
  - Consumption of healthier foods and decreased substance use is associated with greater emotional regulation and self perception of emotional stability.
  - Increased omega-3 fatty acid and amino acid consumption been linked to decreased aggressive emotion and better overall mental health. (Mahboub et al. 2021)
  - Phenylalanine, tryptophan, and tyrosine are amino acids that play a significant role in the production of neurotransmitters including serotonin, noradrenaline, and dopamine. (Jeynes and Gibson 2018).
  - Our study found several significant correlations between substance use, poor diet, and overall emotional regulation.

## Future Research

- The demographic of the sample size should see less diversity in age in order to hone in on mainly college-aged students
- Further research may be involved in college students who frequently use marijuana, alcohol, ADHD medication, and cigarettes
- Additionally, further research is needed to investigate college student's substance use and habits in relation to their mental health (i.e. if they experience illnesses such as depression, anxiety, etc.)