

## Abstract

This study aims to eventually examine perceptions of the causal factors of substance use from three different populations: naïve college students, substance use clinicians and professionals, and those who use substances regularly or who are in recovery. For now, this study investigates the first population: students with little knowledge of substance use. A demographic and drug use survey was developed, and the 18 most prominent causes of substance use were included in a concept mapping software. Liberty students completed the survey regarding their experience with substances and then completed a concept map linking the 18 causal factors of drug use. The results suggest that Liberty students have very little experience with substance use and believe that the most important causal factors are parental drug use and trauma.

## Introduction and Research Questions

The basis of this study was derived from several different studies concerning the causal factors of substance use. However, while there are factors that are accepted as the official causes of substance use, the perceptions of those factors' importance may vary based on the population. The causal factors of substance use that were used in this study were compiled from different research studies looking at substance use disorder.

Two main research questions were investigated:

1. What do students with little experience with substance use believe to be the causal factors to substance use?
2. Do students with histories of substance use rank order the causal variables differently than students without substance use history?

## Method

The present study was a qualitative research design to gather data on college students' perceptions of causal factors for substance use. A brief survey and concept map activity were utilized as tools to reveal implicit beliefs about this topic.

**Participants:** The sample for the present study consisted of 38 undergraduate students at Liberty University who are at least 18 years of age and currently in a psychology class. Participants were recruited by members of the research team presenting this qualitative study and its purpose to psychology classes. A QR code to the Liberty psychology activities webpage was projected for students to access the email address of a team member and schedule a time slot.

**Measures:** Prior to the drug history survey, demographic questions were used to assess the participants' qualifications for the study, as previously listed. The measures used for the study consisted of a survey called "Substance Use History survey" created by the principal investigator. This survey contained eight questions based on the participants' past use of different categories of substances. The other measure used was the concept map containing 18 causal factors of substance use.

**Table 1**

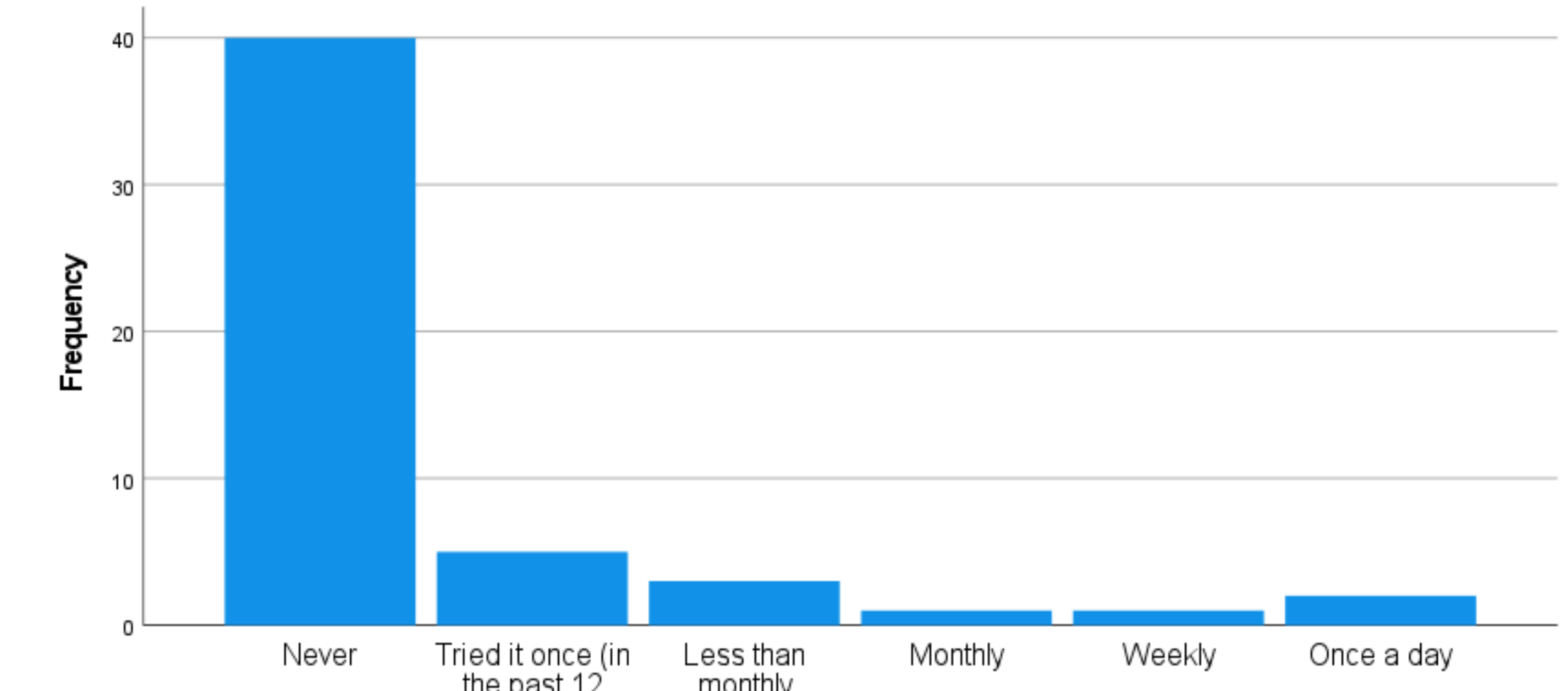
*Analyzed Total Average Matrix of Causal Factors to Substance Use*

Rank	Causal Factors	Weight
1	Parental drug use	3.21E+11
2	Trauma	2.54E+11
3	Negative family management	2.15E+11
4	High life stress	1.73E+11
5	History of anxiety	1.54E+11
6	History of depression	1.43E+11
7	Limited bond with family	1.41E+11
8	Early drug use	1.39E+11
9	Genetic risk for addiction	1.28E+11
10	Low economic status	1.22E+11
11	Frequency of drugs used in community	1.17E+11
12	Academic difficulties	1.15E+11
13	Easy access to drugs	1.04E+11
14	Positive view of drugs	9.42E+10
15	Permissive local laws/norms	9.06E+10
16	Uninvolvement in school/work	8.86E+10
17	Drug use in media	6.97E+10
18	Low church attendance	5.81E+10

**Figure 1**

*Frequency of Student Cannabis Use in the Past 12 Months*

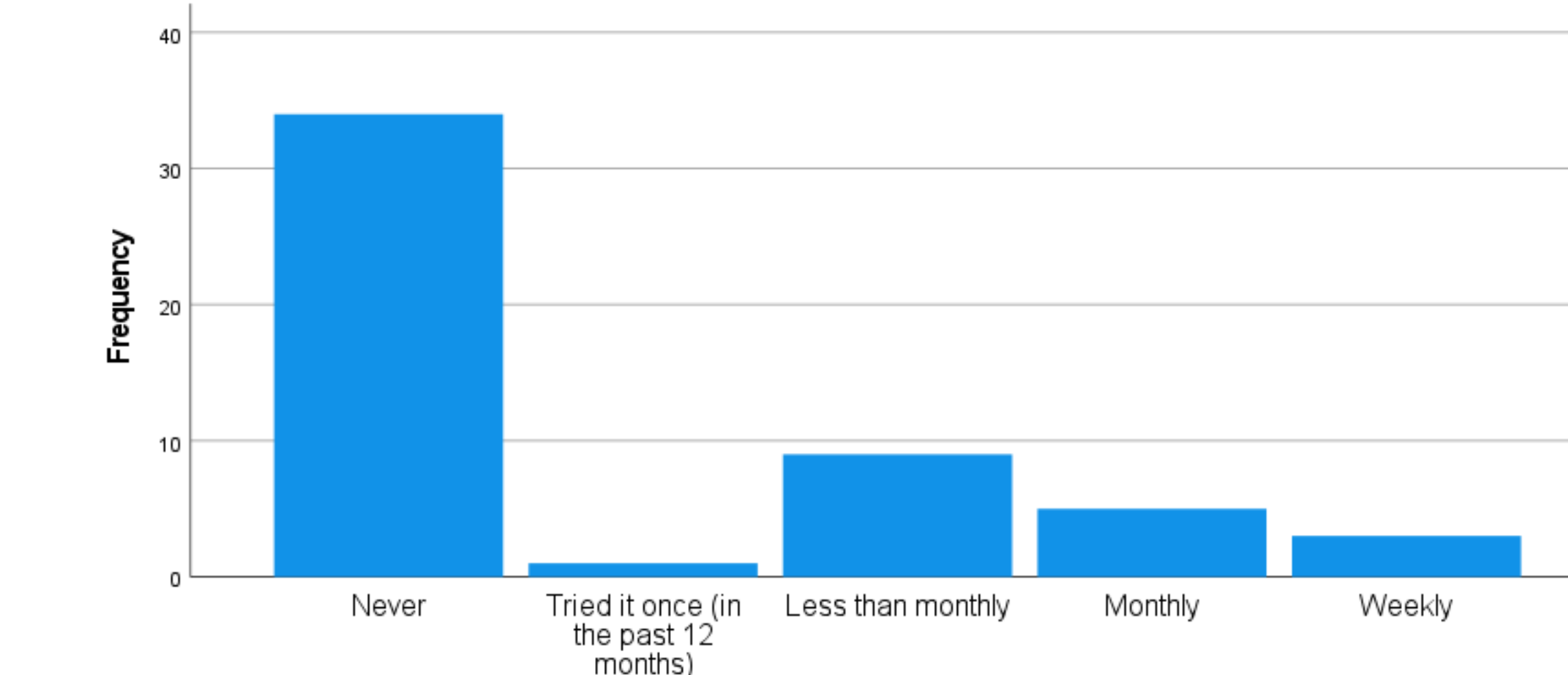
During the past 12 months, how often have you used cannabis/cannabinoids in any form (e.g., marijuana, THC, edibles, weed, or vapes)?



**Figure 2**

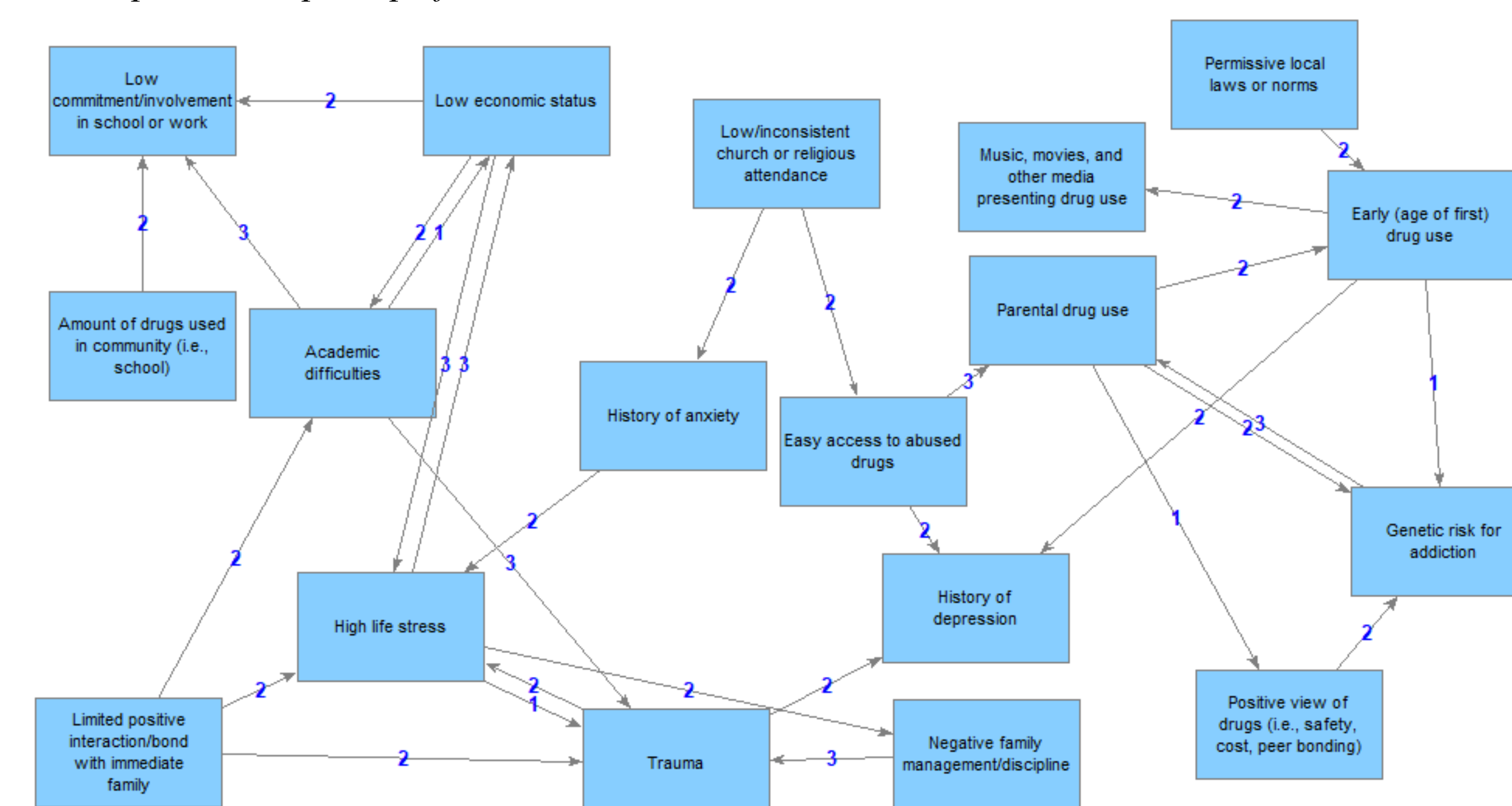
*Frequency of Student Depressant Use in the Past 12 Months*

During the past 12 months, how often have you used depressants (e.g., alcohol, barbiturates, or benzodiazepines: Xanax, Valium, Klonopin, etc.) without a prescription or in a manner other than prescribed?



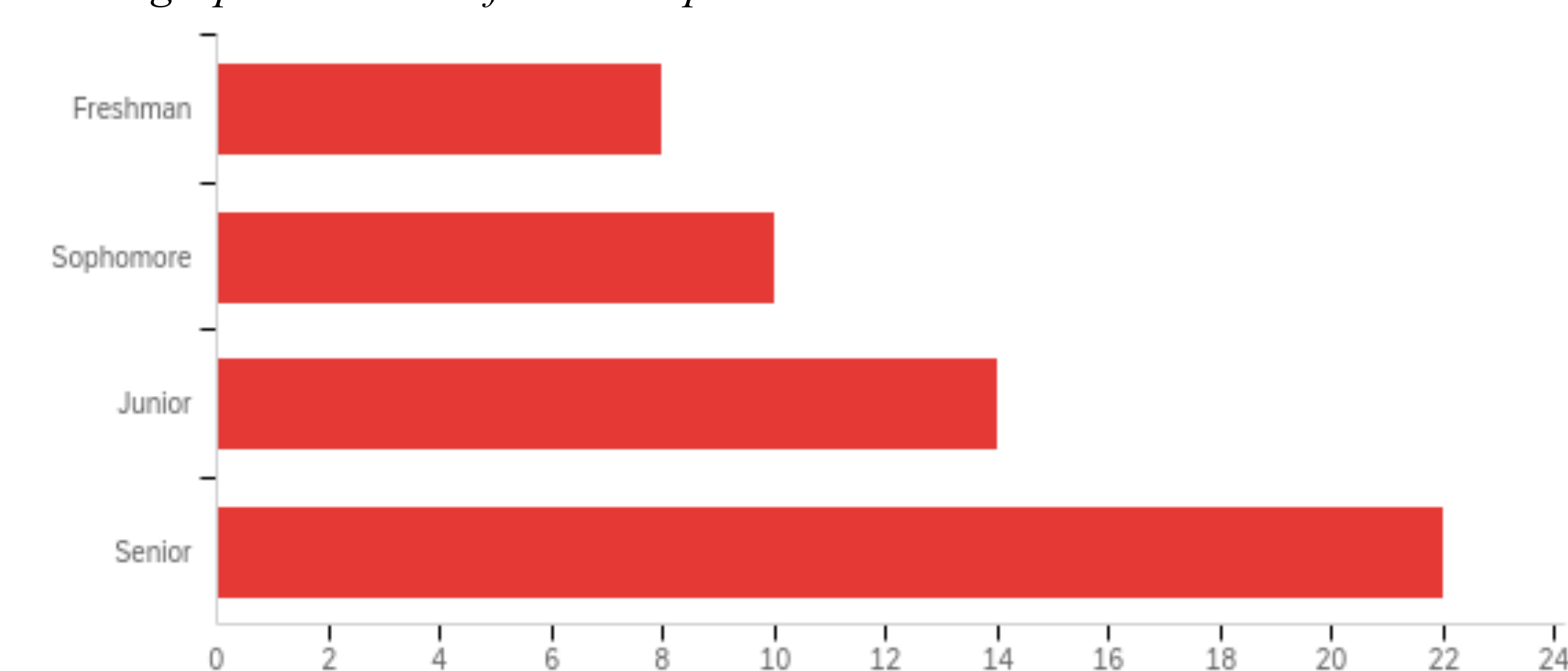
**Figure 3**

*Participant Concept Map of Causal Factors to Substance Use*



**Figure 4**

*Demographic Statistics for Participants' Year in School*



**Table 2**

*Participant Matrix of Causal Factors to Substance Use*

Rank	Causal Factors	Weight
1	High life stress	4.45E+10
2	Low economic status	4.45E+10
3	Limited bond with family	4.41E+10
4	Academic difficulties	2.6E+10
5	Trauma	2.13E+10
6	History of anxiety	2.13E+10
7	Negative family management	1.54E+10
8	Low church attendance	1.11E+10
9	Parental drug use	1.41E+09
10	Easy access to drugs	1.35E+09
11	Genetic risk for addiction	1.35E+09
12	Positive view of drugs	8.61E+08
13	Early drug use	4.3E+08
14	Permissive local laws/norms	2.75E+08
15	Frequency of drugs used in community	15.5
16	History of depression	0.5
17	Uninvolvement in school/work	0.5
18	Drug use in media	0.5

## Method Cont.

For this study, each participant was directed via email to come to the psychology lab to fill out a survey and concept map activity at a scheduled time. Once the participant arrived, he or she was led to a room with a computer where the consent form and survey were prepared on the screen. After producing a four-digit code unique to the individual, the subject was left alone in the room with the door closed to read the consent form and fill out the online survey. Once this was complete the participant was directed through a practice concept map and shown how to connect the causal factor boxes to each other, move them around, and select an arrow weight. They then rated their confidence and moved on to the 18-factor perceptions of substance use concept map. Once they completed the concept map in approximately 20-25 minutes, a team member took a picture of the screen, and the participant rated their confidence in the concept map. To store the data, the researchers uploaded the files to a OneDrive folder labeled with the team member's name who instructed the participant. It was also uploaded to a compiled folder of all participant data. The data was then run through the ConceptBuilder analysis software to organize which causal factors were weighted most heavily from greatest to least based on the concept map.

## Results and/or Conclusion

With the goal of studying students' perceptions, the researchers were able to provide a visual illustration showing the causal factors believed to be the most relevant to substance use. While this study eventually aims to recruit from professionals and from substance users, the first population studied was those who had a minimal understanding of substance use and its causal factors. The research saw that most of the participants had reported little to no use of any substance. Concept maps were then used to show how they believed each factor was connected and weighed with importance. Using this software, it was determined that parental drug use, trauma, and negative family management were the top three most weighted factor in determining substance use in individuals.

## Future Work

The results show that there are not major differences in which factors are rated most heavily. The causal factors of substance use in displayed in the concept map allowed us to examine people's perceptions of primary influences. In the future, it is our hope to use the concept map as a therapeutic aid or diagnostic tool for clinicians. Further we hope that by understanding peoples' perceptions of substance use, mental health professionals will be better equipped to develop holistic personalized treatments for their clients.

## References

See attached reference page