Binge Drinking and Mental Health Issues in College Students

Mikayla House

Destini Reynolds

Megan Ramos

Sydnie Mason

Old Dominion University

December 12, 2020

ABSTRACT

College students who are problem drinkers or tend to binge drink will also tend to experience negative consequences of alcohol consumption at a higher rate than other students. Many don't understand the toll in which alcohol can take on one's personality, mental and physical health. This study was conducted in order to show the little, but significant changes and effects that college alcohol consumption can take on an individual, while considering all of the factors involved. This research paper will use data from a study related to this topic conducted by Harvard University. Moreover, this paper will discuss how the data was attained, how the variables were measured and tested, important findings as well as theories related to this topic. As a result of our research and information found with SPSS, we were able to come to the conclusion that significant alcohol consumption at a college age can impact one's mental health along with their physical health.

Detailed Table of Contents

Introduction

Review of related literature

Description of sample and data

Description of how variables were measured

Findings

Theoretical Basis

Review of Related Literature

Discussion of results

Conclusion

Limitation

Future Directions

References

Approved proposal

Introduction

Have you ever wondered if college students who are problem drinkers or binge drink tend to experience negative consequences due to their alcohol consumption or what drives college students towards binge drinking? If you have, then you may find this research study interesting and worth the read. On average, the most supported reasons that college students binge drink is to fit in with friends, to relieve themselves from their troubles, to feel comfortable with the opposite sex, an emotional escape, and social purposes. Binge drinking is typically viewed as consuming five drinks or more in one drinking session. In general, drinking eases the nerves of college students as they explore their new surroundings and social exhibitions. This study uses qualitative methods to gain an understanding of college students who are problem drinkers or binge drinkers tend to experience negative consequences due to their alcohol consumption, thus, what are the reasons for such behavior?

Review of Related Literature

One study that is very similar to this one was conducted by Crystal Park, who works for the University of Connecticut. She conducted a study called; The Positives and Negative Consequences of Alcohol Consumption in College Students. In this study, Park was focusing on the behavior of alcohol consumption in college students as well as the consequence patterns of alcohol consumption. Furthermore, Park used qualitative research in order to collect the data for this study. Moreover, research shows that there are many negative consequences due to alcohol consumption but there is not enough research on positive consequences due to alcohol consumption, thus, this study found that there are indeed positive consequences of alcohol consumption such as making friends, meeting new people, having a great time, and taking a

break from their responsibilities. Furthermore, this study found that positive consequences due to alcohol consumption were more prominent than negative consequences. Lastly, this study also found that depending on the type of consequences that the students experiences would heavily influence their future decisions on consuming alcohol. This research study is very similar to our study because both focused on college students' alcohol consumption behavior as well as the different consequences that such behavior may bring.

Another study that is similar to this one is called The Burden of Alcohol Use: Excessive Alcohol Consumption and Related Consequences Among College Students. This study was conducted by Dr. Aaron White, among others. This study focuses on the behaviors of alcohol consumption as well as the negative and positive consequences of such behaviors. The study also focuses on high school alcohol consumption, parental attitudes of students drinking alcohol while in college, Greek organizations and their influence on alcohol consumption, and how accessible and affordable alcohol is on college campuses. When looking at the different types of consequences, this study also looks at sexual assault, which alcohol plays an important role in. This study found that there are multiple ways in which alcohol consumption can be decreased, as a matter of fact, this study found that alcohol consumption among senior high schoolers has declined in recent years. The study also found that if alcohol consumption decreases in high school, then it can also decrease in college. This study is similar to our study because both studies focus on the behavior of alcohol consumption among college students as well as the consequences that these actions may bring to individuals.

Description of sample and data

The data sample for this study derived from a study conducted by Harvard University, which was conducted in 117 different colleges in the United States over the course of 4 years. The data for this study was taken from 13,887 participants which included 5,462 females and 8,425 males. Out of all the participants, there were 3,174 freshmen, 3,070 sophomore, 3,028 seniors, and 1,106 students were 5+ undergrads. The ages of these participants ranged under the age of 21 to 24 years old. There were 6,979 participants under age 21, 4,823 ages 21-23, and 2,099 who were 24 years old or older.

A description of How Variables were Measured

The variables are measured through extensive surveys, in which the participants are asked a series of different questions. These questions are sorted out by different categories; the first one is regarding the socio demographic of the students; such as how old they are, their year in college, what type of home they live in, etc. The second one intends to measure the variables which the study consists of. Some of the questions included in this section of the survey are, how many drinks did you have the last time you consumed alcohol? During the last 30 days how many times have you consumed alcohol? Do you consider yourself a binge drinker? These questions help to measure the amount of alcohol that college students consume. The third section focuses on the consequences of drinking alcohol. Some of the questions included are since the beginning of the school year, how often has your drinking caused you to...? (miss class, do something you regretted, have a hangover, etc.). Have you received a fine, warning, or community service due to your drinking? Do you think you have an alcohol problem? Have you sought help for your alcohol problem? Do you have anxiety due to drinking? These are just some of the questions that were asked in the survey which helped measure the variables intended. The

questions were formatted in a way for the participants to have multiple choices when they answered the questions such as multiple choices, yes and no, numbers from 1-10, or scale of very important, important, somewhat important, and no important. Overall, all of these questions in the surveys are how the variables for this study were measured.

Findings

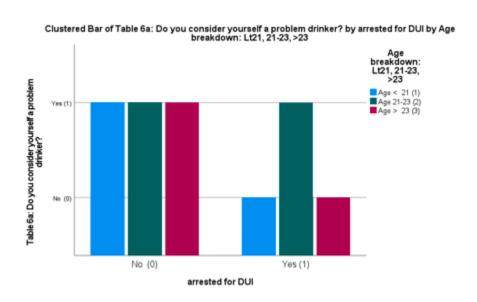
There were multiple findings within this data set. For the first finding there was a small significance between the two variables age and gender. I concluded that their age and gender have a weak correlation between the two.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
binge drink: 5 drinks	13887	1.00	6.00	1.8880	1.29139
binge drink: 4 drinks	13873	1.00	6.00	1.6120	1.02084
drinking prob: behind in schoolwork	11060	1.00	5.00	1.5533	1.15095
drinking prob: trouble w/ police	11078	1.00	5.00	1.0739	.35020
drinking prob: hurt/injured	11076	1.00	5.00	1.1858	.59506
drinking prob: treatmnt for overdose	11076	1.00	5.00	1.0089	.13708
ever thought you had a drinking problem	13814	.00	1.00	.1125	.31599
past year: trouble with police + 1x	13835	.00	1.00	.0257	.15834
sought help for alcohol prob	13840	.00	1.00	.0129	.11268
past year: anxiety or health problems	13773	.00	1.00	.0796	.27065
arrested for DUI	13864	.00	1.00	.0069	.08250
alcohol before serious injury	4863	.00	1.00	.0491	.21620
Age breakdown: Lt21, 21- 23, >23	13901	1.00	3.00	1.6489	.72791
Table 6a: Do you consider yourself a problem drinker?	11596	.00	1.00	.0018	.04252
Frequent binger	13638	.00	2.00	.6595	.81969
Valid N (listwise)	3660				

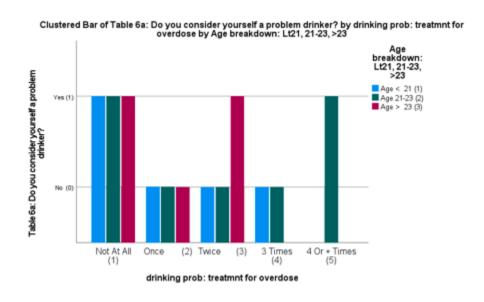
Using the descriptive statistics table above, I was able to identify multiple findings. One important finding was between the variables; problem drinkers and arrests for DUI. The survey

asked the participants; do you consider yourself a problem drinker? For this question, only 21 students responded 'yes' while the rest, 13,866 responded 'no'. For the variable; arrest for DUI, only 95 of the participants responded 'yes' and the rest, 13,792, responded no. When these two variables were analyzed the descriptive statistics showed that they had a strong relationship with the problem drinker variable having a standard deviation of 0.04 and arrests for DUI 0.08. When these two variables were compared in a graph and according to the age of the participants. The results showed that the participants between the ages of 21-23 who responded 'yes' to considering themselves problem drinkers also responded 'yes' to arrests for DUI. This shows that their alcohol drinking behaviors have caused negative consequences, in this case, arrests. These findings also showed that the participants in the under 21 age group and over 23 age group who responded 'yes' for arrests for DUI also responded 'no' to considering themselves problem drinkers. This result raises the question of how aware of their alcohol drinking behavior are the participants.

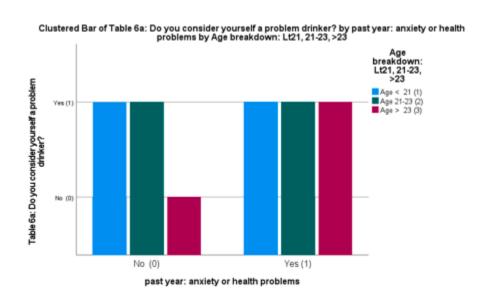


Although, the rest of the significant variables do not show a strong relationship due to the fact that their standard deviation is higher than 0.05. These variables do show a small yet important

significance. For the variable, treatment for an alcohol overdose, the standard deviation was 0.1, which is higher than the intended standard deviation. But this variable showed a small relationship with the variable, do you consider yourself a problem drinker? As stated above, 21 participants indicated to consider themselves problem drinkers. For treatment for alcohol overdose, 65 of the participants indicated to have been treated for an overdose at least once to more than four times, while the rest, 13,822, indicated to never have been treated for an alcohol overdose. When these two variables were compared in a graph, the results showed that the participants between the ages of 21-23 who indicated to consider themselves problem drinkers also indicated to have been treated for an alcohol overdose more than four times. Also, the participants between the age of 21 who indicated to consider themselves problem drinkers also indicated to have been treated for an alcohol overdose twice. These results show that the college students whose alcohol activity was at a higher level experienced negative consequences, which in this case was an alcohol overdose. Next, the next variables that also demonstrated a small relationship are anxiety & other health problems and consider themselves problem drinkers.

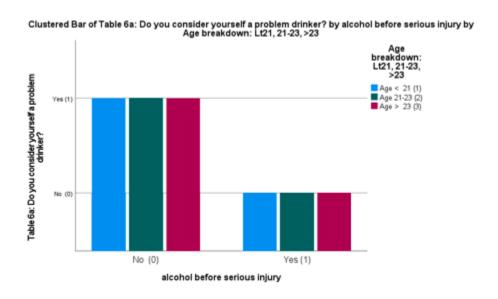


These variables did not show a strong significant relationship because the standard deviation for the variable; anxiety & other health problems was 0.2 which is higher than the intended standard deviation which is 0.05. The number of participants who indicated to experience anxiety & other health problems were 1,096, while the rest, 12,791, of the participants indicated to not have experienced anxiety & other health problems. Furthermore, when these two variables were compared in a graph, it showed that the participants from all age groups who indicated to have experienced anxiety & other health problems also indicated to consider themselves to be a problem drinker. Also, the participants older than 23 who indicated to not experience anxiety & other health problems, also indicated to not consider themselves problem drinkers. These findings show that the college students who drink more experience negative consequences compared to those students who did not drink as much.



Lastly, the last two variables also showed a small yet interesting relationship. The variables are; consider themselves problem drinkers and serious injury after alcohol consumption. Even though the standard deviation for the consider themselves problem drinkers is 0.04, the standard deviation for the serious injury after alcohol consumption is 0.2, therefore, these variables do not

show a strong significant relationship. For the variable; serious injury after alcohol consumption, 239 of the participants indicated to have experienced a serious injury after consuming alcohol, while 13,648 of the participants indicated to not have experienced an injury after consuming alcohol. When these two variables were compared in a graph, the results showed an interesting relationship. The participants, of all ages, who indicated to have experienced an injury after consuming alcohol also indicated to not consider themselves a problem drinker. On the other hand, the participants, of all ages, who indicated to not have experienced an injury after consuming alcohol, did indicate to consider themselves problem drinkers. This is an interesting and unexpected small relationship because it would be expected that the participants who experience a serious injury after consuming alcohol, would also consider themselves a problem drinker.



Finally, the statistical findings of this data sample prove the hypothesis correct in part. The strong relationship between two variables help prove the hypothesis correct because the variables measure exactly what the hypothesis is trying to measure. The variables; problem drinker and arrests for DUI show that the college student who engaged in alcohol activities also experience

negative consequences. The rest of the variables had a small relationship, but it is still important because the relationships help prove the hypothesis correct. For example; the relationship between the variables; problem drinker and anxiety demonstrate that the students who drink higher levels of alcohol also experience anxiety, while the students who drank less or did not consider themselves problem drinkers also did not experience anxiety. Most of the variables prove the hypothesis correct, even though most of the relationships are small. The only variable relationship that proves the hypothesis wrong are; problem drinker and serious injury after alcohol consumption. Therefore, the hypothesis is correct in part.

Theoretical basis:

There are many theories that are related to the hypothesis such as the dual inheritance theory, social cognitive theory, sociological theory, humanistic theory, and the social stigma theory. The dual inheritance theory is related to the hypotheses because it explains how human behavior is a product of genetic and cultural evolution. The college experience is a culture within itself because students experience a combination of behavior and values. There have been different traditions and beliefs of the culture of college drinking. One of the traditions is that students that drink in college consider alcohol as a necessity and a component of social success. As mentioned in the reasons section of the research, college students tend to drink/binge drink to fit in with other peers or the opposite sex, relieve stress or tension, to get away from their troubles, to help celebrate, to get drunk, to help getwork done, to reward their ard work, and because they like the taste.

The social cognitive theory is related to the hypotheses because the theory states that when people observe a behavior and the consequences of the behavior, they use the information to guide their next behavior. College students always have a tendency to follow the trend or follow what their friends/peers do. Students typically test their luck and decide to carry out the action of their peers. They tend to use their friends and their peers as their guides. For example, binge drinking all night knowing that you have class in the morning which results in not performing well in class or even getting caught. If this student observes their friends drinking at the wrong time and watches them endure consequences, they use the information to guide their next behavior. In the research some consequences of binge drinking and trying to sneakily get alcohol were having their ID confiscated, getting fined, warnings, community service, probation, alcohol education programs, refused sales, and having the school and police notified.

The sociological theory is related to the hypotheses because it explains objects of social reality and it draws connections between individual concepts. This theory helps draw the reasons and explanations together of why students binge drink. It explains the raw social reality of why students drink and the consequences they suffer from it. The humanistic theory of personality is related to the hypotheses because it involves the concept of learning by watching the behaviors of others and what results from that behavior. This theory is self explanatory of how it relates to the hypothesis. Students watch their friends or peers behaviors and actions and see what results from that behavior. The social stigma theory relates to the hypotheses because it causes an individual to be mentally classified by others. In the study, students were placed into different categories such as the reasons the student felt the need to binge drink.

There are six research articles that helped us to develop the project. The first article is called "Mental Health of College Students and Their Non-college-attending Peers: Results from

the National Epidemiologic Study on Alcohol and Related Conditions". This article will help develop the project because it discusses what causes a college student to develop a mental health issue such as social anxiety, peer pressure, first time experiences in college. The second article is called "College Students: Mental Health Problems and Treatment Considerations." This article will help develop the project because it discusses some of the mental disorders college students form and explains the actions they partake in to cope with their mental illness. The third article is called "College Student Stress and Mental Health Examination of Stigmatic Views on Mental Health Counseling". This article will help develop the project because it discusses the theory of social stigma. This article studied on the levels of stigma regarding mental health counseling among college students. This connects to our project because we are also looking into the levels of stigma in college students and how those levels may affect their willingness to seek counseling for their mental health disorders.

The fourth article is called "Depression, desperation, and suicidal ideation in college students: results from the American Foundation for Suicide Prevention College Screening Project at Emory University." This article will help develop the project because it discusses sucide among college students including other disorders like depression and anxiety. This study connects to our project because we are also looking at suicide rates among college students and the best ways that may be possible in order to reduce those rates. The fifth article is called "WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders". This article will help us to develop our project because it is a study that focuses on the factors that cause a number of mental disorders in college students. It looks at the numbers and prevalence of depression, anxiety and mood changes among students throughout an average of four years in college. The sixth article is called "Alcohol Use and

Related Problems Among College Students and Their Noncollege Peers: The Competing Roles of Personality and Peer Influence". This article discusses the personal or social influences of why college students drink.

Analytical discussion of results

The independent variable for this study is binge drinking and problem drinker students. If the college student consumes less alcohol or are not problem drinkers then their anxiety and other alcohol related problems would also be at a lower level. On the other hand, if they consume more alcohol or the participants consider themselves a problem drinker then they will have higher levels of anxiety and other alcohol related problems. The dependent variable is anxiety among other alcohol related problems because it depends on how much the college student consumes alcohol or if they are problem drinkers. As their alcohol consumption increases or decreases so will their anxiety and other alcohol related problems as well. In accordance with the findings of this study and the hypothesis presented, the results show that the hypothesis was correct in part. The results/ data of this study demonstrated small, yet significant findings. One of the findings that proved the hypothesis correct was that the college students between the ages of 21 and 23 who considered themselves problem drinkers also indicated to have been arrested for DUI. This shows that the hypothesis was correct in this instance because those students who indicated to be problem drinkers also experienced negative consequences which, in this case, was being arrested for DUI. Another finding that also proved the hypothesis was correct was that the students between the ages of 21 and 23 who indicated to be problem drinkers also indicated to have been treated for an alcohol overdose four or more times. Moreover, the students over the ages of 23 who indicated to be problem drinkers also indicated to have been treated for alcohol overdose three times. This finding also proves the hypothesis correct because due to the alcohol

behavior of students caused them to overdose, thus, be treated multiple times for it. This proves that the students who consume alcohol more than other students also experienced negative consequences. Lastly, the strongest finding that proves the hypothesis is that the students of all ages who indicated to consider themselves problem drinkers also indicated to have developed anxiety among other health problems within the past year. This finding proves the hypothesis correct because it shows that the students who drank alcohol also experienced negative consequences which, in this case, was anxiety. Thus, all of these findings prove that the hypothesis was correct, although the findings of this study are small, these are still important findings that can be taken into consideration.

Conclusions

In conclusion, the hypothesis presented for this study predicted that college students who are problem drinkers or tend to binge drink will also experience negative consequences due to their behavior. The findings of this study were small yet significant results that should be taken into account. The results proved the hypothesis correct, even though the results could have been stronger. The hypothesis and results demonstrated that college students who are problem drinkers and/ or tend to binge drink also tend to experience negative consequences due to their behavior, in this case, those consequences include; arrests for DUI, treatment for overdose multiple times, and developing anxiety among other health related problems. Even though most of the findings of this study proved the hypothesis correct, there was one finding that contradicted the hypothesis. When the data was place in the SPSS program in order to test the hypothesis using a 0.05 standard deviation, the results for variables; problem drinker and serious injury after consuming alcohol showed that the students of all ages who did indicate to be problem drinkers did not experience any serious injuries after consuming alcohol. On the other

hand, the students of all ages who did not consider themselves problem drinkers did experience serious injuries after consuming alcohol. These results are very interesting because they contradict the rest of the results as well as it proves the hypothesis incorrect. Other than these results, the rest of the findings do prove the hypothesis presented to be correct.

Limitation

There were multiple limitations when conducting this study. One of the major limitations was that the data used for this study was not collected from us, instead the data was collected from a previous study conducted by Harvard University. This is a limitation because we could not see the errors that were done while conducting the experiment nor did we have any authority to adjust the data, thus, the results of this study are not as strong as we would have liked to.

Another limitation was that our group was working from remote locations due to the global pandemic, COVID-19, thus, we could not communicate as much as we would have liked to as well as not being able to help each other as much. This is a limitation because we would have worked better if we would have been able to gather as we worked in this study.

References

Auerbach, R. P., Mortier, P., Bruffaerts, et al. 2018. WHO World Mental Health Surveys

International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology, 127*(7), 623–638. Retrieved from https://doi-org.proxy.lib.odu.edu/10.1037/abn0000362

Blanco, C., et al. 2008. Mental Health of College Students and Their

Non-College-Attending Peers: Results from the National Epidemiologic Study on Alcohol and Related Conditions. *Archives of General Psychiatry*, U.S. National Library of Medicine. www.ncbi.nlm.nih.gov/pmc/articles/PMC2734947/.

Garlow, S., et al. 2007. Depression, Desperation, and Suicidal Ideation in College Students:

Results from the American Foundation for Suicide Prevention College Screening Project at Emory University. *Wiley Online Library, John Wiley & Sons, Ltd.* Retrieved from onlinelibrary.wiley.com/doi/pdf/10.1002/da.20321?casa_token=rQu0D5nyRh0AAAA %38T6-

FAQtkSXoTCM1PghR3DWRS2OlxyYWB77dAhwuRzXG57n9y2ovVfyJcd8WBEjUwjWiJUyQT78HpGGz.

Holland, D. 2016. College Student Stress and Mental Health: Examination of Stigmatic Views on Mental Health Counseling. *Michigan Sociological Review*, *30*, 16-43. Retrieved from http://www.jstor.org/stable/43940346

Pedrelli, P., et al. 2015. College Students: Mental Health Problems and Treatment

Considerations. Academic Psychiatry: the Journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry, U.S. National Library of Medicine Retrieved from www.ncbi.nlm.nih.gov/pmc/articles/PMC4527955/.

- Park, C. 2003. Positive and Negative Consequences of Alcohol Consumption Alcohol Consumption in College Students. *Science Direct*. Retrieved from https://doi.org/10.1016/j.addbeh.2003.08.006
- Quinn, P., & Fromme, K. 2011. Alcohol Use and Related Problems among College Students and Their Noncollege Peers: the Competing Roles of Personality and Peer Influence.

 Journal of Studies on Alcohol and Drugs, Rutgers University. Retrieved from www.ncbi.nlm.nih.gov/pmc/articles/PMC3125885/.
- White, A., Hingson, R. 2013. The Burden of Alcohol Use: Excessive Alcohol

 Consumption and Related Consequences Among College Students. *ProQuest*. (35)2.

 https://search-proquestcom.proxy.lib.odu.edu/docview/1512625145/fulltext/81269B0A36F246AEPQ/1?account
 id=12967

Capstone Topic Approval Form

Names of Members: (Last name, First name)

House, Mikayla

Reynolds, Destini

Ramos, Megan

Mason, Sydnie

Project Description:

Our project is about mental illness in college students. The objectives are to reduce stigma associated with mental illness, and to prevent suicide through individual education and outreach events.

Main Hypotheses:

If individual education and outreach events were held, then there will be more of a chance to decrease the rates of suicide. IV: individual and outreach events. DV: suicide rates decrease If individual education and outreach events were held, then stigma will be reduced. IV:

individual and outreach events. DV: reduced stigma.

NEW HYPOTHESIS (INSTRUCTOR APPROVED): "Do college students who tend to binge drink or drink more than the average college students tend to have more anxiety or other mental health related issues?"

IV: College students who binge drink DV: having anxiety or other mental health related issues.

Theoretical basis:

The dual inheritance theory is related to the hypotheses because it explains how human behavior is a product of genetic and cultural evolution.

The social cognitive theory is related to the hypotheses because the theory states that when people observe a behavior and the consequences of the behavior, they use the information to guide their next behavior.

Sociological theory is related to the hypotheses because it explains objects of social reality and it draws connections between individual concepts.

The humanistic theory of personality is related to the hypotheses because it involves the concept of learning by watching the behaviors of others and what results from that behavior.

The social stigma theory relates to the hypotheses because it causes an individual to be mentally classified by others.

Articles

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2734947/

This article will help develop the project because it discusses what causes a college student to develop a mental health issue such as social anxiety, peer pressure, first time experiences in college.

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527955/

This article will help develop the project because it discusses some of the mental disorders college students form and explains the actions they partake in to cope with their mental illness.

3. http://www.jstor.org/stable/43940346

This article will help develop the project because it discusses the theory of social stigma. This article studied on the levels of stigma regarding mental health counseling among college students. This connects to our project because we are also looking into the levels of stigma in college students and how those levels may affect their willingness to seek counseling for their mental health disorders.

4. https://onlinelibrary.wiley.com/doi/pdf/10.1002/da.20321?casa_token=rQu0D5nyRh0AA AAA%3A8T6-

FAQtkSXoTCM1PghR3DWRS2OlxyYWB77dAhwuRzXG57n9y2ovVfyJcd8WBEjUwj WiJUyQT78HpGGz

This article will help develop the project because it discusses sucide among college students including other disorders like depression and anxiety. This study connects to our project because we are also looking at suicide rates among college students and the best ways that may be possible in order to reduce those rates.

5. https://psycnet-apa-org.proxy.lib.odu.edu/fulltext/2018-44951-001.pdf

This article will help us to develop our project because it is a study that focuses on the factors that cause a number of mental disorders in college students. It looks at the numbers and prevalence of depression, anxiety and mood changes among students throughout an average of four years in college.

6. http://web.b.ebscohost.com.proxy.lib.odu.edu/ehost/pdfviewer/pdfviewer?vid=1&sid=13 0c4127-3397-43bf-9ca0-3c1e9695f996%40pdc-v-sessmgr04

This article will help us to develop our research because it is a summary and psychological look at mental health's impact on the college student. It also focuses on the lack of resources from the colleges and universities themselves andthe toll this takes on the students suffering from various mental disorders.

NEW ARTICLES BASED ON THE NEW HYPOTHESIS

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3125885/

This article discusses the personal or social influences of why college students drink.

Data description and collection: (what you are going to collect to test your hypotheses and how)

We're going to use the data from the www.icpsr.umich.edu website.