

THE PENNSYLVANIA STATE UNIVERSITY  
SCHREYER HONORS COLLEGE

DEPARTMENT OF CRIMINOLOGY AND SOCIOLOGY

THE SPURIOUS RELATIONSHIP BETWEEN ALCOHOL, CAFFEINE, MARIJUANA, AND  
DELINQUENT BEHAVIOR: AN ANALYSIS OF THE POTENTIAL “CAUSES” OF  
DELINQUENCY

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SPRING 2015

A thesis  
submitted in partial fulfillment  
of the requirements  
for a baccalaureate degree  
in Criminology  
with honors in Criminology

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## **ABSTRACT**

This thesis examines the relationship between substance use and delinquency among a nationally representative contemporary sample of 8<sup>th</sup> and 10<sup>th</sup> grade students in the United States. The data was taken from the 2012 Monitoring the Future study, which is a survey that asks students about their substance use, involvement in sports and activities, family life, delinquency, and overall the aspects that make up their lives. While there have been several studies that look at alcohol, marijuana, and caffeine and their individual effects on delinquency, this research aims to isolate the effect of each substance on delinquency while still accounting for other factors, such as family life and grade point average. All substances, forms of delinquency, and spurious factors were accounted for and transformed into unique measures in order to determine relationships and correlations. The results of this research showed that there is a positive relationship between substance use and delinquency, and that this relationship is stronger for males than it is for females.

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## ACKNOWLEDGEMENTS

First and foremost, I would like to thank my boyfriend, Chris. You are my best friend, and I am so happy to have had you in my life for the past six years and to have had your support throughout both high school and college. I am so excited to be graduating together and starting the next chapter in our lives! I would also like to thank Chris' parents, Terri and Frank, as well as the entire Taptich family. I love you all and am truly grateful for having you all in my life because you have been so supportive of me since the day I met each one of you, and you have made me feel like a part of the family. I would like to thank my grandmother and mother for always being so proud of me and so encouraging throughout my entire life. Without both of you, I am not sure that any of this would have been possible. Last but definitely not least, I would like to thank Dr. Staff and Professor Silver for being there throughout this entire process. I feel like I have learned so much from both of you, and I appreciate your help more than you know!

## **Chapter 1**

### **Introduction**

Juvenile delinquency is a prevalent part of society (Felson, Savolainen, Aaltonen, & Moustgaard, 2008; Kristjansson, Sigfusdottir, Frost, & James, 2013; Watts & Wright, 1990; White, Tice, & Stouthamer-Loeber, 2002). Although much is known about delinquency and environments that tend to foster “deviant” behavior, there is not much research on the relationship between drug and alcohol combinations and delinquency. While it is apparent that there are several different factors that can influence delinquency, such as heavy alcohol use or poor relationships with parents, there are not many studies that have isolated substance use having an effect on delinquency among juveniles. The current study hypothesizes that alcohol use will increase the chances of delinquent behavior. Testing this hypothesis is important because not only will it help researchers better understand delinquency, but it would also give them the opportunity to determine whether teenagers who are not already delinquent and are exposed to alcohol would also become at risk for partaking in delinquent behavior. Alcohol consumption is “socially acceptable” for many teenagers, and it seems to be the easiest illegal substance for teens to access. Alcohol has been linked to aggressive behavior (Felson, Teasdale, & Burchfield, 2008; Felson, Savolainen, Aaltonen, & Moustgaard, 2008), which can result in more violent criminal acts, such as assault. Judgment becomes impaired when under the influence, and impulses tend to take over (Felson, Teasdale, & Burchfield, 2008). At social gatherings, other drugs can be introduced along with alcohol, such as marijuana or caffeine (Kristjansson et al., 2013; Watts & Wright, 1990). In order to decrease crime and deviant

behavior, it is necessary to understand this relationship in order to keep teenagers out of jail and juvenile facilities and in school on their way to a proper career path.

The purpose of this study is to analyze the relationship between substance use and delinquency. The sample will be eighth and tenth grade students from the Monitoring the Future 2012 survey. I consider the following questions: 1) do grades in school, parents' education level, having a job, and delinquency in adolescence have a positive relationship? ; 2) does alcohol use and delinquency have a positive relationship; 3) does caffeine use (specifically energy drinks/shots) and juvenile delinquency have a positive relationship; and 4) does marijuana use and juvenile delinquency have a positive relationship. As mentioned previously, the predictor variables in this study are three indicators of substance use, and the outcome variable is self-reported juvenile delinquency.

## **Chapter 2**

### **Literature Review**

There are several different factors that may influence one's alcohol use and delinquent behavior. In previous research, it was found that those under the influence of alcohol were more likely to commit acts of violence, car theft, or vandalism (Felson, Teasdale, & Burchfield, 2008; Felson, Savolainen, Aaltonen, & Moustgaard, 2008; Wells & Graham, 2003). Previous research has demonstrated that the relationship between alcohol and violence could be attributed to clouded judgment from the substance as well as increased aggression (Felson, Teasdale, & Burchfield, 2008).

In past research, criminologists have theorized that the relationship between alcohol use and delinquency may be spurious because of the simple fact that alcohol is illegal for high school students to purchase and/or consume (Felson, Savolainen, Aaltonen, & Moustgaard, 2008). While there seem to be many potential causes for delinquency, alcohol has been a great predictor of criminal activity in past research. In fact, this particular study found a positive relationship between one being an alcohol consumer and committing assault while not under the influence of alcohol (Felson, Savolainen, Aaltonen, & Moustgaard, 2008). From taking notice to several spurious factors that can influence one to commit an assault, researchers concluded that there may be a causal effect of alcohol on assault. However, with a correlational research design it is difficult to determine whether a relationship is causal or not, and for those purposes we can only focus on if there is a statistically significant relationship between variables.



In another study, researchers demonstrated that even if a person was sober, they were 10.63 times more likely to commit an assault if they drank alcohol frequently (once or more a week) (Felson, Teasdale, and Burchfield, 2008). Felson et al.'s (2008) study also found that those who drink more than two drinks in one sitting are 73% more likely to commit an act of violence. This study found a difference between males and females when it came to violent offenses. Boys were more likely than girls to commit violent offenses such as assault, and researchers summarized that alcohol may have a strong influence on impulsive or “spur of the moment” offenses (Felson, Teasdale, and Burchfield, 2008). This research also found that older participants in their study were more likely to be affected by alcohol that can result in a violent offense. These older participants were also more likely to drink more frequently, and those who reported drinking five or more drinks in a sitting were more likely to report their most recent violent occurrence was when they were intoxicated (Felson, Teasdale, & Burchfield, 2008). This research displays the strong positive relationship between alcohol and violence, and that those who drink alcohol with more frequency are more likely to be violent.

While alcohol has been linked to more violent acts, other drugs such as marijuana have been linked to property offenses in past research. Researchers in a previous study have found that minor delinquent acts, such as theft, are more likely to occur when there was an alcohol and marijuana combination or marijuana was used alone, whereas more serious or violent acts were more likely to take place when alcohol was combined with other illegal drugs or used by itself. In fact, in Watts and Wrights (1990) study, results indicated that minor acts of delinquency, such as theft, had a positive relationship with frequent users of alcohol, marijuana, and tobacco. This study concluded that from their results, the greatest predictor of minor delinquency was marijuana combined with either tobacco or alcohol, whereas the greatest predictor of violent

delinquency was marijuana combined with other illicit drugs and tobacco (Watts and Wright, 1990).

In another study, researchers found that those teens who were under the influence of marijuana or were frequent users were more likely to commit property offenses (i.e., theft), whereas those who used alcohol were more likely to commit violent offenses. Results of this study indicated that those under the influence of alcohol were more likely to get into a fight or in trouble with the police than those under the influence of marijuana (White et al., 2002). This research also found that adolescents in a group were more likely to commit acts of delinquency, especially acts such as assault or burglary (White et al., 2002). These previous studies have isolated alcohol and marijuana in order to determine which drug is related to which type of delinquency (either minor or violent), and the current study will build more on this in relation to outside factors.

Alcohol and marijuana have both been found to be predictors of delinquent acts, and another drug that is more recently receiving attention in regards to delinquency and aggressive behavior is caffeine. Previous research has found that both alcohol and caffeine, even by themselves, can lead to aggression. Since both substances can lead to aggression on their own, the proposed hypothesis of this research makes sense. This combination can lead to impaired judgment, which can result in either aggression or violence. The caffeine almost covers up the person's level of intoxication, which could lead to more risky behaviors and crime (Bersot et al., 2010). Caffeine alone has been linked to behavior changes and aggressive or violent tendencies, and the second most common form of caffeine consumption for teenagers is energy drinks (Kristjansson, Sigfusdottir, Frost, and James, 2013). In one study, over 60% of teenage participants consumed some sort of caffeine on a daily basis, and this regular consumption has

potential to lead to conduct disorders, which can later result in aggressive tendencies or violent acts against others (Kristjansson, 2013).

Although some research has found a particular relationship between behavior, alcohol consumption, and caffeine use, other researchers do not believe that this is true because of the current lack of scientific research and results supportive of this claim. A review of the available literature on this topic was conducted by researchers in 2012, and researchers concluded that many studies in this field only focused on alcohol and energy drink use combined, but failed to account for alcohol use by itself. For this reason, it is difficult to determine if energy drinks actually magnify the negative effects of alcohol consumption. Also, the common misconception is that teenagers and young adults use caffeine in the hopes of not feeling as intoxicated, but previous research has found that only 2% of research participants admitted to doing this (Verster, Aufrecht, & Alford, 2012).

One way to further examine these relationships is to delve into criminological theory. Delinquency has been examined through different theories and by different researchers throughout the years. Although other criminology theories have done an adequate job of explaining delinquency in past research, I believe that Travis Hirschi's Social Control Theory explains it in the greatest detail. Hirschi's theory also has an explanation of delinquency that relates closest to my research topic, and it allows me to research this topic with a mediating variable of substance abuse to better understand the relationship between involvement and delinquency. This study is based on the ideologies of Social Control Theory and how it relates to substance use and delinquency.

According to Travis Hirschi's Social Control Theory, one must have proper bonds in order to desist from deviant or criminal behavior. He says that there are four parts to the "social

bond”, and they are as follows: attachment, commitment, involvement, and belief (Wiatrowski et al.,1981). Attachment means the people that one has a strong or significant bond with, such as their mother or father. Commitment refers to one going to school and having aspirations to further their career and doing necessary things to get them to that point. Involvement is one participating in socially accepted activities, such as a sports team. Belief refers to one's morals and how they compare to the morals of the general population. This relates to my thesis because my conceptual diagram is based around the idea that there are many independent factors that can affect delinquency or alcohol use. It is difficult to pick apart specific causes because this is correlational research, and the relationship I am looking at has been found in the past to be spurious (Wiatrowski et al., 1981). With this in mind, I will be focusing my attention on all four parts of the social bond. Since there are other factors that can contribute to an adolescent becoming delinquent, I will pick apart the social bond in my measures and variables in order to decipher what the underlying “causes” for delinquency were in this particular dataset.

There are many different causes of delinquency, and this research aims to isolate the influence of alcohol and other drugs on delinquency while still accounting for other factors. There are several different factors that can influence both substance use and delinquency, and it is important to keep this in mind while doing this research. A causal relationship has not been established, so a spurious relationship has been formed since it is difficult to pinpoint what is actually causing delinquency. Family life, poor grades, lack of school activities, and even morals that do not coincide with the popular belief can all have an influence on both alcohol and substance abuse as well as delinquency.

In the current study, I used linear and logistic regression to investigate the relationship between delinquency and substance use. In these models, I controlled for factors that might be

spuriously related to both, such as socioeconomic status and involvement in after school activities, to analyze this relationship from different angles and to make my findings more concrete. I hypothesize that there will be a positive relationship between marijuana use and delinquency. I also believe that there will be a positive relationship between alcohol use and delinquency. Finally, I also hypothesize that there will be a positive relationship between caffeine use and delinquency.

## **Chapter 3**

### **Methodology**

The data for this study were extracted from the Monitoring the Future 2012 Survey of eighth and tenth grade students. This dataset is available to the public, and is conducted every year. Since the dataset is available to the public, this study was exempt from needing IRB approval. This dataset was deemed the most appropriate and representative of the American teenage population because of the large sample size. This dataset was also the best fit since the age range that I was looking to examine was not readily available in my environment. Using secondary data was also the most convenient for my purposes in regards to examining data from a large sample size and being able to draw my own conclusions and to form my own hypotheses from this secondary data.

Students surveyed are from all regions of the United States, and from all racial, ethnic, and socioeconomic backgrounds. Researchers that collect the data typically go to 130 high schools and 150 middle/elementary schools to survey both eighth and tenth grade students. Twelfth grade students are also surveyed, but their research results will not be included in the current study. In total, there were 31, 106 research participants included in the eighth and tenth grade dataset. Eighth grade students accounted for 50.4 percent of the data population, and tenth graders accounted for the remaining 49.6 percent of the respondents. The survey invites students to report on their drug use, after school activities, family life, grades, delinquency, and about their peers and school in a more general sense. All missing variables were accounted for, and many missing cases are due to students being absent from school at the time of the survey

distribution. While some absenteeism is related to illness or chance, there are also students not included that are consistently absent because of drug use and their delinquency. For these purposes, it is safe to say that effect sizes would be different if these adolescents were included in the dataset. Secondary data analysis was deemed appropriate for the current study's purposes in order to analyze a larger pool of participants that could be properly generalized to the United States youth population as a whole. This dataset was analyzed using IBM SPSS software, and included measures of alcohol, marijuana, and caffeine usage. All missing variables were recoded, and they were not included in the final analyses.

The predictor variable in this study was substance use, and there were three substances in particular that were isolated as predictor variables for the purposes of this study. In order to determine the substance use of the teenagers in this dataset, alcohol, marijuana, and caffeine were chosen as the substances that would be examined and included in this study. Another substance, cocaine, was also examined in order to determine if the relationship between the other substances was more significant than the relationship between a more serious drug and delinquency. In order to avoid invalid memory recall amongst the research participants, the measures of substance use that were chosen were only from the last 30 days. This would ensure that the self-reports in this dataset were the most accurate, and would also help to narrow down which teenagers were using the substances more regularly. The measures of cocaine asked the participant how many times they had used cocaine in the last 30 days, the measures of alcohol asked the participant how many times they had consumed more than 5 drinks in one sitting in the last 30 days, the measures of marijuana asked the participant how many times they had used

marijuana in the last 30 days, and the measures of caffeine asked the participant how many times they had consumed an energy drink or shot in the last 30 days.

The outcome variable in this study was delinquency. There were many measures of delinquency to consider from this dataset, and I chose to look at several different variables in combination with the predictor variables and control variables to determine whether a relationship truly existed between the predictor and outcome variables. The measures of delinquency that were chosen were if the teenager had ever been suspended from school and if they had ever hurt someone badly.

Alongside the predictor measures and outcome measures, there were also several control variables in place in order to better validate the relationship that existed between the predictor and outcome variable. Since this survey asked participants many questions about their home and school life, there were many measures to pick from. However, for the purposes of this study the measures of most importance were put in place in order to ensure that the relationship between the predictor and outcome variables was strong and not influenced directly by spurious factors. One of the controls in this study was age since there were both eighth and tenth graders that participated in the survey. Gender was also controlled for in order to determine whether males or females were more or less likely to participate in a particular activity or behavior. School performance was also another area of interest. In order to determine how the students were doing in school, a measure was used that had asked them what their most common grade was on their prior report card or in the last school year. After school employment was also included in the regression models in order to add in a variable that would measure a student's



time after school. Finally, the education level of the mothers of the students in the dataset was used as a measure of the teenager's socioeconomic background.

## Chapter 4

### Results

Linear regressions and logistic regressions were used to decipher the relationship between the variables in this study. As shown in Table 1, the relationship between marijuana and hurting someone badly was found to be statistically significant. For each one unit increase in marijuana use, the odds of violence increased by 37%. Each one unit increase in GPA is also associated with an approximate 16% decline in the odds of violence. Also, as age increased, the likelihood of committing a violent act decreased by 24%. As mother's education level increased, the probability of juvenile delinquency also decreased by 4.5%. Students that had after school employment were 18% more likely to commit an act of violence, and boys were 94% more likely to hurt someone badly than females. The relationship was still significant with controls in place. The p value was  $>.05$ , and boys were 94% more likely to hurt someone badly than females. The relationship was still significant with the controls in place

Table 1: Marijuana Use and Hurting Someone

	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Education Level	-.046	.023	4.103	1	.043	.955
GPA	-.176	.016	123.258	1	.000	.838
Age	-.280	.036	61.070	1	.000	.755
Paid Job	.170	.024	48.501	1	.000	1.185
Marijuana	.316	.025	160.596	1	.000	1.372
Boys	.665	.072	86.188	1	.000	1.945
Constant	-.924	.186	24.780	1	.000	.397

In Table 2, the relationship between marijuana and being suspended from school was also significant, with  $p < .05$ . For example, each one unit increase in marijuana use is associated with a 39% increase in the likelihood of school suspension. The control variables had a similar association as in Table 2. Also, boys were 114% more likely to be suspended than girls.

Table 2: Marijuana Use and Suspension

	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Education Level	-.115	.010	123.965	1	.000	.892
GPA	-.284	.007	1469.119	1	.000	.752
Age	-.088	.016	29.466	1	.000	.916
Paid Job	.092	.013	54.517	1	.000	1.097
Marijuana	.329	.014	593.638	1	.000	1.390
Boys	.765	.033	547.693	1	.000	2.148
Constant	.132	.084	2.473	1	.116	1.142

Turning to Table 3, in terms of alcohol use, the relationship between binge drinking and delinquency was also significant. As shown in the last row of Table 3, those that binge drink more often were 79% more likely to hurt someone than those that do not binge drink often. The significance was  $p < .05$ , and boys were 107% more likely to hurt someone badly. Since the effects of all of the control variables had a similar effect, I did not discuss each control variable while discussing the results of each table.

**Table 3: Binge Drinking and Hurting Someone**

	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Education Level	-.056	.024	5.544	1	.019	.946
GPA	-.178	.016	117.820	1	.000	.837
Age	-.301	.038	64.436	1	.000	.740
Paid Job	.145	.026	30.619	1	.000	1.156
Boys	.730	.075	94.733	1	.000	2.076
Binge Drinking	.587	.040	213.324	1	.000	1.799
Constant	-1.140	.193	34.827	1	.000	.320

Table 4 shows the relationship between binge drinking and school suspension. Those that binge drink were also 46% more likely to be suspended.

Table 4: Binge Drinking and Suspension

	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Education Level	-.127	.011	143.690	1	.000	.881
GPA	-.297	.008	1529.656	1	.000	.743
Age	-.071	.017	18.319	1	.000	.931
Paid Job	.095	.013	53.923	1	.000	1.100
Boys	.835	.034	613.538	1	.000	2.304
Binge Drinking	.382	.021	338.226	1	.000	1.465
Constant	.125	.088	2.044	1	.153	1.134

In table 5, the relationship between caffeine use and delinquency was also deemed significant due to the research findings. Since energy drinks per day, ever hurt someone badly, and ever stolen anything were not on the same form, this analysis could not be performed. However, the relationship between caffeine use and delinquency was significant because of one measure of delinquency, suspension. Those that were ever suspended were 17% more likely to consume energy drinks with regularity. The p value was  $<.05$ , so this one measure of delinquency verifies that a positive significant relationship exists between caffeine use and delinquency.

Table 5: Caffeine Use and Suspension

	B	S.E.	Wald	df	Sig.	Exp(B)
Mother Education Level	-.103	.018	34.347	1	.000	.902
GPA	-.288	.013	520.897	1	.000	.750
Age	.033	.028	1.407	1	.236	1.033
Paid Job	.102	.021	24.219	1	.000	1.107
Boys	.779	.056	192.855	1	.000	2.179
Caffeine	.158	.014	119.428	1	.000	1.171
Constant	.048	.145	.108	1	.743	1.049

Finally, in order to take a look at how teenagers are using substances that are illegal in all states and for all ages, the relationship between cocaine and delinquency was examined in Table 6. When examining teenagers that are most likely to be suspended, those that use cocaine more frequently are 66% more likely to be suspended than those that do not use cocaine. Although cocaine is a less commonly used drug, this piece of evidence supports the idea that there is a relationship between substance use and delinquency, and that the more one uses an illegal substance or drug, the more likely they are to partake in delinquent behavior.

Table 6: Cocaine Use and Suspension

	B	S.E.	Wald	df	Sig.	Exp(B)
Cocaine	.510	.093	30.249	1	.000	1.666
Paid Job	.088	.015	33.656	1	.000	1.092
Gender	-.800	.045	322.458	1	.000	.449
Mother Education Level	-.123	.015	69.132	1	.000	.884
Age	.104	.045	5.388	1	.020	1.110
Grade	-.312	.010	951.935	1	.000	.732
Constant	1.407	.163	74.206	1	.000	4.082

Overall, all of the substances that were analyzed in this study shared a statistically significant relationship with juvenile delinquency. In all cases, boys were more likely to commit acts of delinquency than girls. As the teenagers' mothers' education went up, the teenagers were significantly less likely to commit a delinquent act. As one's GPA increased, they were also less likely to commit an act of juvenile delinquency. While all of these other factors can be attributed to juvenile delinquency, there was still a statistically significant relationship between each substance and juvenile delinquency.

## **Chapter 5 Discussion**

In previous research, it was determined that there is a positive relationship between marijuana use, alcohol use, caffeine use, and juvenile delinquency, and what was found in the current study supports these previous research studies. The findings in this research study confirm that there is a positive relationship between marijuana use and delinquency. From this regression, it was also found that boys are more likely than girls to participate in delinquent activity. As grades in school go up and the mothers' education level goes up, however, delinquency seems to decrease. These findings coincide with previous research on marijuana since suspension is a less serious form of delinquent behavior. Regardless of the several factors that have a positive relationship with delinquency, marijuana use and delinquency were still found to have a positive significant relationship.

The findings of this research also supported the second hypothesis that alcohol use and delinquency would share a positive significant relationship. Those that binge drink were 79% more likely to hurt someone badly, and this finding coincides with previous research since alcohol use tends to lead to more aggressive and violent behavior.

The final hypothesis was also confirmed because caffeine use and delinquency had a positive significant relationship. Teenagers that consume energy drinks were 17% more likely to be suspended from school than their counterparts that do not consume energy drinks on a regular basis.



From this research, it could also be concluded that gender was a very significant piece to the puzzle. For all forms of delinquency, boys were more likely than girls to commit the delinquent act. While this was controlled for and there was still a positive relationship between the substance itself and delinquency, boys were much more likely to be using the substances and to be partaking in delinquent behavior. Also, the mothers' education level seemed to act as a protecting factor. As the mothers' education level increased, the children were less likely to commit acts of delinquency. This could be because the children of educated parents are more closely monitored, so they have less opportunity to commit delinquent acts or to use illegal substances. As grade point average went up, teenagers were also less likely to commit acts of delinquency. However, having an after school job did not act as a protecting factor against delinquency. As a matter of fact, those that spent more time in an after school job were more likely to commit delinquent acts.

Although the hypotheses of this research study were confirmed by data results, there were some limitations that accompanied the research. For instance, in the Monitoring the Future survey, not all teenagers are given the same form. Some were not asked the same questions, so therefore there were missing cases and not all substances could be compared to all measures of delinquent behavior. This could pose a problem since for some substances there were more measures of delinquency, and for others there was only one measure of delinquency. Without these measures readily available, it is difficult to speculate on whether the substance would share a significant relationship with all of the measures of delinquency.

While this study was flawed, it can benefit many fields and future research. Since the growing consensus is that boys typically commit more crimes and are involved in more delinquent behavior, future research could isolate why this is by looking at substance use and

other extraneous factors. Criminologists and sociologists could also look to this study to formulate a more concrete hypothesis on why children of mothers that have more education are less likely to commit delinquent acts. Since more and more people are continuing their education, maybe this protecting factor will protect more teenagers each year from getting into trouble or trying drugs. Another interesting piece of evidence that future research could delve into is the fact that those whom have an after school job are more likely to commit delinquent acts. Since the teenagers in this study were in eighth and tenth grade, having a job was seen as a negative aspect of life. Maybe for older teenagers, having an after school job would be a protecting factor, and future research could isolate each age group to see if the relationship is the same or if it varies by age. There is a positive significant relationship between substance use and delinquency, so future research should continue to focus on protecting factors against substance use in order to decrease the cases of delinquency and crime amongst the juvenile population. The goal of this research and future studies is to reduce juvenile crime and delinquency, and this study will aid in future research on this topic and hopefully prevention and reduction of juvenile offenses altogether.

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<b>AWARDS AND ACCOMPLISHMENTS</b>	Dean's List: Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014 Scholar Lion's Award Recipient: Highest GPA in College of Liberal Arts, Spring 2012	
<b>EXPERIENCE</b>		
<b>State College Police Department, State College, PA</b> <i>Police Intern</i>		October 2014-Present
<b>Penn State Auxiliary Police, University Park, PA</b> <i>Auxiliary Police Officer</i>		February 2014- August 2014
<b>Honors Thesis, University Park, PA</b> <i>Schreyer Scholar</i>		August 2013-Present
<b>CVS Pharmacy, State College, PA</b> <i>National Certified Pharmacy Technician</i>		September 2010-Present
<b>LEADERSHIP</b>		
<b>Teaching Assistant</b> <i>Domestic and Sexual Violence</i>		January 2015-Present
<b>Schreyer Honors Gateway Orientation</b> <i>Orientation Leader</i>		July 2014-November 2014
<b>Penn State Lion Ambassadors</b> <i>Administrative Assistant</i>		Fall 2012-Spring 2013