

## Research Article

# Substance Use, Risky Sexual Behavior and Delinquency Among Students at a Historically Black College

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## Abstract

This study aimed to explore the relationship between substance use and abuse, delinquency and risky sexual behaviors among college students at a Historically Black University (HBCU). This study recruited a total of 150 participants ages 18-24 from a Historical Black College in the Mid Atlantic. This study implemented a cross-sectional and quantitative design utilizing survey research to assess relationships between the independent variables under investigation. Pearson's R correlational analysis were conducted in order to assess the relationship between substance use, risky sexual behavior and delinquency among the youth population. Results revealed that there was a significant positive relationship between substance use, dependency and delinquency. Results also revealed that there was a significant positive relationship between risky sexual behavior and delinquency and between substance use/ dependency and risky sexual behavior. Given the increase in opioid use among this population there is a need for further research.

**Keywords:** HBCU college students, drug and alcohol use, risky behavior

## Introduction

Crime in the United States is a problem that affects the population and society as a whole on every social level. Not only does crime cost its victims as well as the offenders, but it also cost the taxpayers whose tax deductions are allocated to build bigger, securer incarceration facilities, compensate workers within the justice system, provide the convicted and the non-convicted (i.e. the accused) with meals and housing, and provide legal representation for people who are charged with crimes who cannot afford legal representation. The United States is known for having one of the highest incarceration rates compared to other countries in the world. According to Todd Minton, a statistician for the U.S. Department of Justice, the jail incarceration rate per 100,000 U.S. residents was 236 in 2011 [1]. Minton also mentions that compared to other countries not only does the United States have the highest incarceration rate, but it has the longest prison sentences [1]. Another study conducted by the International Centre for Prison Studies [2] points out, as of 2009 the United States incarceration rate was 743 per 100,000 of the national population. Throughout the years crime and incarceration has increased. The Bureau of Justice Statistics indicates that the entire nation's overall incarceration rate has dramatically increased over the last few decades [3]. Considering the increase in the incarceration rates and United States having the longest prison sentences, presently the justice system is experiencing an overflow of cases and inmates. Some prison and jail systems are so overcrowded with inmates that they are filled to capacity sparking new building projects to build bigger facilities.

One of the major contributors to the overflow in the justice system is the increase in delinquency among young adults. According to the Juvenile Court Statistics 2009 report completed by Charles Puzzanchera, Benjamin Adams, and Sarah Hockenberry [4], "In 2009 courts with juvenile jurisdiction handled an estimated 1,504,100

delinquency cases and juvenile courts handled about 4,100 delinquency cases per day" (p. 6). Puzzanchera, Adams and Hockenberry [4] also magnifies the fact that number of juvenile delinquency court cases processed by juvenile court increased by 30% between the years 1985 and 2009 and since the 1960's the juvenile delinquency caseload has increased by 300%. With the alarming number of juvenile delinquency cases increasing over the years many critics and scholars have expressed concerns in exploring the underlying contributing factors. Based on an increase in previous years statistics in youth delinquency cases one could make the assumption that there are clear deficits with intervention programs for preventing youth from entering the justice trajectory.

Over the years there have been many theories that have been presented as to what has contributed to the increase in reported delinquency. Some researchers such as Onifade and colleagues [5] have attributed factors such as neighborhood socioeconomic ecology to predicting a youth's risk for being involved in the justice system. Other researchers such as Cottle and colleagues [6] have given a multilevel approach to explain why some youth are at risk for being involved with delinquency. Their approaches have included socioeconomic risk factors, family dynamics, substance use dependence, personality issues such as temperament, or clinical diagnosis such as conduct disorders, etc. This study aimed to take a multilevel approach in exploring how dynamics such as a youth's

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risky sexual behavior and a youth's substance use have an influence on their participation in delinquent behavior.

Given the increase in reported delinquency in the youth population there is a need to explore the factors that contribute to delinquency. This study aims to examine the relationship between sexual risky behavior, substance use/dependence and delinquency. The purpose of this study is to explore to what extent does sexual risky behavior influences a young adult's participation in delinquent behavior. Another purpose of interest is to explore the role that drugs and/or alcohol play in a young adult's participation in delinquent behavior.

Without properly exploring the issue and the extent of the problem including underlying factors influencing delinquency, the issue cannot be properly addressed or properly corrected. That is why, according to Onifade, Petersen, Bynum, & Davidson [5] delinquency risk assessments are beneficial in determining which youths are at risk to reoffend and to then divert them away from offending. Therefore, exploring the factors that contribute to youth's delinquency would be highly beneficial to assess what youth are at risk of not only being delinquent, but also who are at risk of being delinquent over time (i.e. chronic). Once we thoroughly address the contributing factors, can we began to introduce intervention and prevention strategies.

In an effort to explore these factors, the study will explore the following research questions:

- 1.Does risky sexual behavior predict delinquency in youth?
- 2.Does substance use contribute to delinquency in youth?
- 3.Does substance use predict risky sexual behavior?

## Review of Literature

This section focuses on the previous literature that provides the groundwork for the proposed study. This literature review provides insight into previous research into the factors that potentially influence young adults to exhibit delinquency patterns. This study also provides clarity into a conceptual model that will be used to provide an explanation as to why young adults exhibit delinquency patterns. Specifically, this literature review explores how sexual risky behavior influences delinquency patterns in young adults. The review also examines research on how and why young adults from low socioeconomic backgrounds are at risk of exhibiting chronic delinquency patterns. Finally, the literature reviews studies that investigate how substance use puts youth at a higher risk for displaying delinquent behavior.

## Risky Sexual Behaviors

A factor that is explored in the literature as contributing to young adults venturing down the path to delinquency is their participation in other antisocial behaviors such as sexual risky behaviors. Today's youth and adolescents face many different societal norm changes that tend to have a severe impact on their lives. As cited by Snyder and Sickmund [7], in today's society fewer children are being raised by two-parent families. The absence of a social or familial support system could lead to youth participating in activities such as alcohol and drug use. Alcohol's effects on a person's mind and perception has been explored through pervious literature. A study conducted by Tina Zawacki [8] found that alcohol consumption in a laboratory experiment had causal effects on women's sexual risk judgements. Another study conducted by Scott-Sheldon, Carey and Carey [9] titled "Alcohol and Risky Sexual Behavior among Heavy Drinking College Students" revealed several alarming statistics when it comes to risky sexual behavior and alcohol among college aged students. In particular, the study found that out of 663 qualified sexual encounters 526 of the encounters involved the use of alcohol. In addition, condom

use was reported to being used in only 55% of the sexual encounters. Although condom use was typically reported, there was a reduction in the reporting of condom use when a female considered her partner a steady sexual partner. When alcohol was a factor within the sexual encounter the rates of condom use within steady sexual partners was also reduced. With alcohol consumption youth are less likely to participate in condom use which puts them at risk for contracting sexual transmitted diseases and HIV/AIDS.

In a study conducted by Monahan et.al [10] entitled, "Adolescent Pathways to Co-Occurring Problem Behavior: The Effects of Peer Delinquency and Peer Substance Abuse" concluded that there is an issue of substance use in adolescents. Statistically this substance use can lead to unlawful behaviors within that adolescence. Statistics from a 2010 Federal Bureau of Investigation report notes that 1,154,096 youth were arrested that year. According to this same 2010 Federal Bureau of Investigation report, "Between 1991 and 1997, the juvenile arrest rate for drug abuse violations increased 138%. The rate declined 26% between 1997 and 2010, but the 2010 rate was 76% more than the 1991 rate" (p. 20). It is widely held that most experimentation occurs during the adolescent period of a person's life. As such, it is necessary to create awareness among teenagers to abstain from drug use and behavior which may lead to criminal and legal penalties.

## Low Socioeconomic Status/ Poverty

The role of socioeconomic factors is essential to understanding crime and delinquency. Landmark studies such as Nye, Short and Olson [11], provided evidence that socioeconomic factors indicate more delinquent behaviors. Throughout history it has been discovered that crime rates follow a cyclic pattern and is generally based on the state of the economy. Therefore, if the economy is suffering and people are losing their jobs and struggling to make ends meet they are at a greater risk to commit crimes. It is then that more people tend to turn to illegitimate measures to meet basic necessities. Although there are specified government programs such as SNAP, WIC, etc., that unemployed or low-income people could employ in order to assure that those necessities are met, societal stigma surrounding receiving governmental assistance plays a significant role in a person not applying for assistance and trying to make it on their own. Also, if one is involved in the criminal justice system this is a disqualifier for some government programs. For some people, adolescence through young adulthood can be a difficult time socially. Most adolescence/ young adults are concerned with peer groups and maintaining their social net and the thought of anything jeopardizing their social livelihood is devastating. Thus, some youth would be reluctant and even embarrassed to disclose to anyone that their family is living in poverty and/or accepting government assistance. According to Snyder and Sickmund [7], youth living in the United States today face different complex issues. The authors also state that although poverty has declined today's youth are more likely to live in poverty.

Furthermore, media and television often sensationalize examples of poor youth attempting to keep up with the latest trends, by resorting to criminal and delinquent activity. This is an example of what scholar Merton [12] coined "Merton's Strain Theory". This theory combines sociology and sociological theory to explain the lack of impulse management and drives for certain materialistic things that motivate certain groups in society to participate in delinquent and criminal activity in order to obtain those things. Thus, as previously mentioned, a youth that is living in a household that is already experiencing economic hardships may turn to illegitimate measures in order to obtain items they want and value or simply to meet a basic need. Youth become attracted to the flashy gang member or drug dealer who appears to be benefiting from participating in a life of crime. They begin to internalize that participating in criminal activities allows them to have and get the things that they want and

allows them access to things that they would not otherwise have the financial means to get.

From a Psychodynamic standpoint Freud, [13] would incorporate coming from a low socioeconomic background with issues with youth's psyche, or more specifically, their id. According to Freud, the id, which is present in the psyche at birth, has basic needs, urges and desires, such as food, drink, shelter, warmth, affection, etc. In the psychodynamic paradigm, the id operates on the pleasure principle which strives for immediate gratification of its desires. The id uses a primary process in order to obtain these basic needs and urges. In the primary process when the id's needs and urges are not met, it creates tension within the id. The id then tries to find other means to obtain gratification in order to discharge the tension quickly. Issues with anxiety in the id can lead to issues with impulse control. Youth coming from a low socioeconomic background in which some of their basic urges and needs are not being met may potentially illicit tension within the youth's id. Their id then naturally wants to find a way to expel the tension quickly and this may lead to the youth making irrational, delinquent, impulsive decisions.

### **Youth and Drug Use**

Another factor that previous scholars have explored is the influence of substance use in a youth's participation in delinquent behavior. Heavily present in today's media is the underlying message of a constant war that the United States has been battling since the early 1980s; the war on drugs. With music's most influential rappers and hip-hop artist openly rapping about how in their previous lives they were drug dealers, and coining terms for new drugs that hit the market such as "Molly," "Keisha" and "Lean" these rappers may be negatively influencing their young adult audience. According to Diamond, Bermudez and Schensul [14], "Trends in ecstasy use in America during the past decade were reflected in mainstream, American rap-music lyrics between 1996 and 2003" (p. 270). This article goes on to analyze the lyrics of 69 raps songs and identify themes and messages in the lyrics. Consistently listening to these lyrics, today's youth get swept up into the American culture where drugs, particularly prescription drugs as well as marijuana appear to be cool and trendy. In some instances, if you are a youth and are able to obtain various prescription pills may be highly regarded in certain peer groups. The issue of drugs and drug abuse among youth could also be fueling the increase in delinquency issues among this population.

### **Chronic Delinquency**

According to the Juvenile Court Statistics 2009, "In 2009 there were approximately 31 million youth in the United States that were under juvenile court jurisdiction" [4]. With violence being portrayed in every media facet, it is difficult for youth to escape violent images displayed before them. In today's 21st century technology, video games such as Grand Theft Auto and Call of Duty depict such gore and violent images in clear high definition clarity that it is difficult for youth to disassociate fantasy from reality. From a behavioral perspective, Bandura theory of observational learning [15] can be used to explain the violence exhibited by today's youth. Youth could potentially be witnessing violence and violent images and be internalizing these violent ways. Also, according to the observational learning paradigm, youth who are witnessing society's social acceptance of violence and violent images could then be modeling such behavior.

According to Myner, Santman, Cappelletty and Perlmutter [16], "According to the Federal Bureau of Investigation (FBI) in 1993 more than 2 million juveniles were arrested" (p. 65). Chronic delinquency in youth is a serious issue that has its many consequences in other facets of a youth's lives. Youth who have difficulties and exhibit behavioral and/or delinquent patterns over a period of time typically

are not able to maintain placement in a regular classroom setting. Not being able to maintain regular attendance in school can severely impact a young adult's academic record. As stated by Myner et. al [16] "Delinquent behavior was clearly and consistently associated with academic performance. Poor achievement was shown to be predictive of delinquency" (p. 67). These youths attend alternative placements that are specifically designed to address these behavioral issues. These schools are characteristically labeled as alternative schools. For example, an urban public-school system has "designed a program for students in grades 6-12 who have a history of chronic misbehavior and/or have received long-term suspension" [17]. According to an urban school system, "The purposes of an alternative school are to (1) intervene and address problems that prevent a student from successfully achieving in the regular educational setting; (2) reduce the risk of the student dropping out of school by directing resources to helping the student resolve issues affecting performance at school; (3) return the student to the regular educational setting as soon as practical with the skills necessary to succeed in that environment; and (4) preserve a safe, orderly and inviting learning environment at the regular educational setting" [17]. This program tailors its curriculum to address the student's needs and help them to reach their full potential. The urban school system also has a "New Day" program that offers academic services to court-involved youth between the ages of 12 and 15 years old. Other urban school systems have a similar implementation of a program designed for students having behavioral difficulty. Most school systems recognize that academic success is pertinent to a person's survival in society and they also recognize the hindrance that delinquency can impose on a student's academic success and thus have implemented strategies to modify these obstacles.

Participating in delinquent behavior chronically causes a "spiral-down" effect in which having a poor academic record leads to lower paying jobs which in return creates poor housing situations, including living in poverty and on governmental assistance. This may cause some youth to begin to turn to illegal measures in order to meet any needs that they feel are essential to their survival. This in turn may potentially lead to delinquency issues and criminal record. With all of these issues that could arise, drug usage could also be a contributing factor in the mix of delinquency in the youth population. For this reason, it is imperative that further research is geared toward targeting youth and preventing them from participating in delinquent behaviors.

A study conducted by Jylve Myner and her colleagues [16] sought to explore the variables related to recidivism among juvenile offenders. The study, conducted in a rural central California county, aimed to provide a more exhaustive and accurate assessment of recidivism in the youth population. The study assessed juveniles before age 18 and also assessed juveniles who remained in juvenile jurisdiction until the age of 18. This, as reported by Myner et. al, [16] provided them the opportunity to examine the entire criminal record of the participants in the study. The study also explored the relationships between recidivism among juveniles and demographic, behavioral, familial, school-related, and crime-related implications. Myner and her colleagues gathered data from the county probation department on 138 males who had been convicted of criminal offenses during their juvenile years. They included males in the sample who had a mental health and probation file as well as those who remained in juvenile jurisdiction until adulthood. The ethnic make-up of the sample was 57% Hispanic, 26% Caucasian, 12% African-American and 7% other ethnicity. The study found that alcohol abuse was a significant predictor of recidivism in juveniles. Although not statistically significant, they found that delinquent juveniles had a much lower GPA and poor school attendance. The study relied on psychological reports in order to gather the data needed to conduct

the statistical analysis which, according to the study, was not intended for empirical data usage. The consistency of the particular assessments between each juvenile is questioned considering different raters were assessing each juvenile and therefore, the information included in the assessment could vary from one rater to the next. Furthermore, this study focused solely on the male population as opposed to exploring both gender profiles on delinquent behavior. This makes it difficult to generalize the results as implications for interventions to the general population as well as to females. Therefore, the proposed study intends to examine both male and female delinquency patterns based on the three proposed predictor variables. The study also included an overrepresentation of Hispanics as opposed to Caucasians and African-Americans. Thus, the proposed study tends to provide a "full" ethnic picture by including equality in the sampled ethnic population.

Another study conducted by Onifade, Petersen, Bynum, & Davidson [5] entitled "Multilevel Recidivism Prediction: Incorporating Neighborhood Ecology in Juvenile Justice Risk Assessment," focused on exploring juvenile's neighborhood socioeconomic ecology in order to further predict a juvenile's risk of recidivating or delinquent behavior. The study surveyed juvenile offenders placed on formal probation by the county's juvenile court. The study included 585 youth between the ages of 10 and 18 that were placed on formal probation. The mean age of the participants was 14 years and 9 months old. The ethnic make-up of the study was 40% African American, 45% Caucasian American and 15% Hispanic. Young female offenders made up 25% of the sample population. The study found that the risk-recidivism relationship was moderated by neighborhood socioeconomic ecology [5].

## Rationale

Most of the research in the literature on youth in the justice system or delinquent youth focuses on exploring the issues that surround youth who are in the justice system due to severe delinquent behaviors and crimes such as assaults, murders, rapes, etc. There is very little focus in the literature on youth who are in trouble due to less serious offenses or delinquent behaviors. Therefore, this study proposes to evaluate the influences surrounding why youth participate in delinquent behaviors of less serious behaviors and/or offenses. Also, most of the literature also focuses on adolescents and juvenile offenders in an effort to develop preventative measures in preventing delinquency in early onset. Therefore, this study aims to explore the factors that surround delinquency in a college-aged population to determine the severity of delinquent behavior and the influence of substance use on these behaviors. The question of whether or not delinquency promotes other risky behaviors such as risky sexual behaviors is also posed for exploration through this study to determine to what extent these factors correlate with one another.

## Methods

### Design

This study implemented a cross-sectional design utilizing survey research by means of quantitative methods to establish correlational relationships and differences between the independent variables under investigation. Pearson's R correlational analyses were conducted in order to assess the degree to which substance use the relationship between risky sexual behavior and delinquency among the youth population at a college in the Southeastern part of the United States. Power analysis was conducted to estimate a medium effect size. For a correlation analysis for two groups, it was determined that a total of 85 participants will be needed to achieve adequate power ( $p \leq .05$ ). Therefore, 150 participants were recruited for this study.

### Participants

This study recruited a total of 150 participants enrolled in

undergraduate General Psychology course at a historically black college or university in a midsized city in the Southeast.

Participant's ages were categorized as follows: 18 (23.3%), 19 (36.0%), 20 (20.7%), 21 (10.0%), 22 (4.0%), 23 (3.3%), and 24 (1.7%). There were 92 (61.3%) female participants included in this study and 58 (38.7%) male participants. Additional demographic information on the sample is outlined in the Descriptive Statistics table (See Table 1).

Those younger than 18, older than 24, and not a student at the selected college were excluded from this study. There were minimal risks to individuals participating in the current study. However, due to the emphasis on sexual risky behavior and substance use, participants were given referral information regarding medical and mental health services on campus and within the local community.

### Procedures

In order to gain access to college aged students, a professor of larger classes (General Psychology classes) was contacted and explained the nature of the study specifically that the study will assess relationship between sexual risky behavior, substance use and delinquency among college aged youth at a college in the Southeastern part of the country. The professor was asked to provide 5 points extra credit to the students that participated as an incentive. In an effort to reduce risk of coercion, the professor offered additional extra credit opportunities.

Once the professor and the university Institutional Review Board granted approval, the researcher performed a classroom recruitment presentation during the student's regularly scheduled class time. The participants were told that the researcher is assessing behaviors in college aged students. The participants were notified that the study would consist of filling out four (4) short surveys within the context of the classroom and would approximately 45 minutes-1 hour to complete. Once the participants agreed to participate in the study, they signed a consent form and were explained that participation is voluntary and they could leave at any time. Participants were instructed how to complete the surveys. Participants were also given a re-contact form after completing the surveys and were explained that their professor would only use the re-contact form for the purposes of receiving extra credit.

After completing the surveys, the consent form and re-contact forms were separated from the surveys and all forms were placed into different boxes at the front of the classroom so the researcher would not be able to identify participants. Debriefing, which consisted of the participants having time to comment and ask the researcher any questions regarding the study at the conclusion of the study was conducted. A list of community mental health resources was distributed to ensure that each participant would have adequate resources for any troubling personal or psychological issues that arose during or after completing the survey.

### Measures

Three measures were administered in the study. The first questionnaire was developed by the researcher to assess demographic information including age, gender, gender identity/sexual orientation, ethnic identity, student status, relationship status, student classification, grade point average, current residency as a student, type of residence, and with home do they live. The Survey of Sexual Attitudes and Behavior was used to assess their sexual behaviors and their options towards condom usage. This measure was created from the American College Health Association's National Health Assessment (2011-2015) and Brafford & Beck's Condom Self-Efficacy Scale for college students or CUSES [18]. In a study conducted by Brafford & Beck [18] on 768 college students the CUSES was found to have adequate reliability with a Cronbach's alpha of  $p = .90$  and a test-

**Table 1:** Descriptive Statistics for Healthy Behaviors Sample.

Variable	n	%
<b>Age</b>		
18 yrs old	35	23.3
19 yrs old	54	36.0
20 yrs old	31	20.7
21 yrs old	15	10.0
22 yrs old	6	4.0
23 yrs old	5	3.3
24 yrs old	2	1.7
Other	2	1.7
<b>Gender</b>		
Male	58	38.7
Female	92	61.3
<b>Ethnicity</b>		
American Indian/Alaskan Native	3	2.0
Asian/Pacific Islander	3	2.0
Black	126	84.0
White/Non-Hispanic	4	2.7
Hispanic	3	2.0
Other	8	5.3
Biracial	3	2.0
<b>Marital Status</b>		
Single	147	98.7
Married	2	1.3
Missing	1	.7
<b>Classification</b>		
Freshman	64	42.7
Sophomore	55	79.3
Junior	18	91.3
Senior	12	99.3
Other	1	.7
<b>Student Status</b>		
Full-time status	150	100
<b>Residence</b>		
In State	127	84.7
Out-of State, but within USA	20	13.3
Out of the Country	3	2.0
<b>Current Residence</b>		
On-Campus	113	75.3
Off Campus	37	24.7
<b>Where is Residence</b>		
House	39	26.0
Residence Hall	111	74.0
<b>With whom do you reside</b>		
Roommates	112	75.2
Alone	18	12.1
Parents	14	9.4
Children	1	.7
Other	4	2.7
Missing	1	.7
<b>Working</b>		
No	80	53.3
Yes; Part-time	65	43.3
Yes; Full-time	4	2.7
Missing	1	.7
<b>GPA</b>		
2.0-2.9	3	2.0
2.5-2.99	38	25.3
3.0-3.49	84	56.0
3.5-4.0	24	16.0
Missing	1	.7
N= 150		

retest correlation of  $p=.81$ .

Southern Illinois University's Core Alcohol and Drug Survey (2000) or CADS was used to assess the amount and type of substance the use a young adult participated in as well as the onset and frequency of the substance us, the location the substance use occurs and their opinions of how often they felt the average college student used a particular substance. The Alcohol and Drug Survey was also used to assess the emerging adult's frequency of participation in specific delinquent behaviors while under the influence of drugs and/or alcohol. Martena, Brown, Donovan and Dude [19] found that the CADS had satisfactory internal consistency and scales were significantly associated with alcohol consumption, drinking motives, and participant gender.

### Demographic Information

The researcher constructed this questionnaire to collect demographic information. The questionnaire consisted of 10 questions and collect basic demographic information including age, gender, student classification, ethnic origin, marital status, place of permanent residence, current residency as a student, type of residence, with whom do they live with, employment status, and approximate grade point average. This information was used to ensure participants involved in the study were between the ages of 18 and 24.

### Survey of Sexual Attitudes and Behavior

The Survey of Sexual Attitudes and Behavior was utilized to measure participant's self-reported sexual activity and beliefs and ideas surrounding sex and condom usage. It assessed and measured participant's sexual activity and sexual attitudes as it relates to condom use and HIV risk. It was composed of 18 items that asks participants rate using a likert scale their agreement or disagreement to statements that were directed to self-efficacy when using a condom, condom availability, condom affordability, ideas about HIV/AIDS and how it is transmitted, attitudes about condom use as it relates to HIV/AIDS and discussion of HIV/AIDS and condom use to sexual partners. The survey also asked participants to report the number of sexual partners they have had in the last 12 months, both protected and unprotected, knowledge of their HIV/AIDS status, their amount of condom use, and if they have participated in sexual activities while intoxicated. For the current study questions 11 through 29 regarding safe sex practices attitudes was assessed to determine risky sexual behavior. For the current study, the alpha level for this measure was  $\alpha= .68$ .

### Alcohol and Drug Survey

Drug and alcohol use and dependence was assessed by the Alcohol and Drug Survey. This scale was used to assess the substance a participant used, the amount of substance they used within the last year and within the last 30 days, the onset of their drug and alcohol use and behaviors that have occurred because of their drug and alcohol use. It also asked participants to record the frequency of how often they used each substance. For the current study endorsing use of tobacco, inhalants and steroids were not considered substance use to fit the representation of substance use in the targeted population. Also endorsing that they experienced a hangover, performed poorly on a test, got nauseated or vomited, missed a class, been criticized by someone they know, thinking that they had a drug problem, had a memory loss, done something they later regretted, have been taken advantage of sexually, tried to unsuccessfully stop using, seriously tried to commit suicide and been hurt or injured as a result of their substance use indicated substance abuse. For the current study, the alpha level for this measure was  $\alpha=.835$ .

## Delinquency

Delinquency assessed a participant’s responses in endorsement of participating in certain activities while intoxicated by alcohol or another drug. On this scale participants were asked to indicate how often they have experienced any of the listed symptoms in the last year as a result of their drinking and/or drug use. For this study endorsement of participation in getting in trouble with the police, residence hall or other authorities, damaging property, getting into an argument or fight, driving a car under the influence, getting arrested for DWI/DUI and taken advantage of another sexually indicated delinquent behavior. For the current study, the alpha level for this measure was  $\alpha=.37$ .

## Results

In an effort to assess the relationship between young adult’s drug/alcohol use, sexual risky behaviors and delinquency, SPSS 22 was utilized. The data was pre-entered in SPSS by a previous researcher that was collecting the data for a campus study. Frequencies were used to ensure the data was normally distributed to assess the relationship between the variables of delinquency, substance use and risky sexual behaviors. Pearson’s R correlations and standard regression analyses were also used to assess relationships between the primary variables.

To investigate the relationship between the primary variables, Pearson’s R correlations were run. Research Question 1 predicted that there was a statistically significant positive relationship between risky sexual behavior and delinquency in young adults. Result of correlation revealed that there was also a significant positive relationship between Risky Sexual Behavior and Delinquency  $r(126) = .242, p \leq .01$ . Research Question 2 predicted that there was a statistically significant positive relationship between a young adult’s reported substance use and abuse and their delinquency patterns. Results revealed that there was a significant positive relationship between Substance Use and Abuse and Delinquency  $r(147) = .638, p \leq .01$ . Research Question 3 predicted that there was a statistically significant positive relationship between a young adult’s risky sexual behavior and a young adult’s reported substance use and abuse. Results revealed statically significant relationship between Risky Sexual Behavior and Substance Use  $r(128) = .220, p \leq .01$ . (See table 2).

## Discussion

Given the increase in juvenile delinquency cases in the United States over time there is a need to assess influences contributing to delinquency in the youth population [4]. The purpose of the current study was to investigate whether a youth engaging in risky sexual influences youth’s delinquency pattern. A secondary purpose was to investigate if a youth’s substance use plays a role in the youth’s delinquency over time. A third purpose of the current study was to investigate whether youth engaging in sexual risky behaviors are more likely to engage in substance use.

The first research question predicted that there would be a statistically significant positive relationship between risky sexual behavior and delinquency in young adults over time. Therefore, the riskier sexual behavior a youth reports the more likely they will participate in delinquent behavior. This was supported. Thus,

participants who reported riskier sexual behavior were more likely to participate in delinquent behaviors.

These findings are consistent with previous literature on the relationship between risky sexual behavior and delinquency in the youth population. A study conducted by Jennifer E. Lansford and colleagues [20] found that, “More peer rejection during childhood, affiliation with deviant peers during pre- adolescence, and delinquency in childhood and adolescence predicted riskier sexual behavior through age 27, although delinquency at age 16 was the only risk factor that had a significant direct effect on risky sexual behavior through age 27” (p.1747). These finding are consistent with the current study’s findings and suggests that there is a correlation between a youth participating in risky sexual behavior and delinquency. Both studies suggest that the more a youth participates in sexual risky behavior the more likely they are to participate in other “anti-social” behaviors such as delinquency.

The second research question predicted that there would be a statistically significant positive relationship between a young adult’s reported substance/alcohol use and their delinquency patterns over time. Therefore, the more substance and/or alcohol use a young adult reports the more likely they are to participate in delinquent behaviors over time. This research question was supported. Thus, young adults who reported more substance use were more likely to participate in delinquent behaviors.

These findings are consistent with previous literature on the relationship between substance/alcohol use and delinquency. A study conducted by Barnes, Welte, and Hoffman [21] found that alcohol misuse is strongly related to other problem behaviors including illicit drug use and delinquency [15,17,19]. These findings are also consistent with literature suggesting that substance/alcohol use and other factors put young adults at a greater risk for participating in delinquent behaviors [22]. It could be predicted that other factors could potentially influence both delinquency and substance/alcohol use.

The third research question predicted that there would be a statistically significant positive relationship between a youth’s reported risky sexual behavior and a youth’s reported substance use. This research question was supported. Thus, young adults who reported more substance use would report participating in riskier sexual behaviors.

These findings are consistent with the current research on substance use and risky sexual behavior. According to Burnett et.al [23], college students have an “invincible mentality” which promotes college students to be promiscuous and experimental via engaging in risky sexual behaviors or experimenting with drugs. According to a study conducted by Bon and Lawandales [24], “HIV-risky behavior when drunk or high was predicted by personal substance use as well as by number of recent partners and normative perceptions of peer sexual behavior” (p.165).

## Limitations

Findings from this study may have limited generalizability given the measures appear to have been normed or based on behaviors and beliefs of students at predominately White institutions rather than historically Black institutions. For example, in the Alcohol and Drug Survey the measure included a question asking participants how often they used tobacco and alcohol. Through previous research, it is commonly known that African American youth are less likely to participate in using tobacco and alcohol compared to Caucasian

Table 2: Correlation table for primary variables.

Variable	1	2	3
Delinquency	1.00		
Substance Use	.638**	1.00	
Risky Sexual Behavior	.242**	.220**	1.00
Mean	7.60	21.15	65.14
Standard Deviation	2.19	8.52	7.08
** $p \leq .01$			

youth. Octavia Madison-Colmore and colleagues [25] found significant differences in the use of alcohol and tobacco use among Caucasian and African American female college students. That study found that Caucasian female college students were more likely to engage in the use of alcohol and tobacco than are African American female college students [25]. Therefore, current findings may not be reflective of African Americans college students from historically Black institutions. Moreover, such finding may not be generalizable to African Americans students at PWI's who because of peer norms and a culture of increased consumption and drug use at PWI may have more access to and pressure to use. Furthermore, this study included more female participants which may or may not represent the overall delinquent population. Previous data on delinquency has indicated that males or more likely to participate in delinquent behavior compared to their female counterparts. Therefore, the results would have limited generalizability to the delinquent youth population. Also, considering the population, it could be stated that students who are enrolled in college are less likely to participate in delinquent behaviors as opposed to students who are not enrolled in college. This also limits the generalizability of the results to the delinquent population.

## Implications

The results of this study conclude that there is a significant positive relationship between substance/alcohol use and delinquency in the young adult population. This indicates that the young adult population is at a greater risk for participating in delinquent behavior if they are engaging in substance/alcohol use. The findings of this study suggest that the more substance and/or alcohol use a youth participates in the more likely they are to participate in delinquent behaviors. These findings are consistent with previous research, which also indicates that youth are more likely to be at risk for participating in delinquent behaviors. [26].

The current study provides insight into the research on young adults who are delinquent for committing "less serious" offenses, i.e. offenses that would be considered delinquent behaviors rather than criminal behaviors. Most of the past research focused on juvenile delinquency and on juveniles who have committed crimes such as murder, strong arm robberies, etc. This study aimed to examine why a slightly older population such as college-aged students participate in behaviors that are deemed socially unacceptable. This study also provides add to the literature on this population. Gaining a better understanding of the issues and underlying factors that contribute to chronic delinquency would be helpful when implementing preventive services for the at-risk populations.

Prevention services should include exploring family dynamics of the youth population who are involved in delinquency as well as substance/alcohol use treatment. Past literature supports the theory that the amount of social support plays a role in delinquency patterns [27]. Therefore, the family dynamics of the targeted delinquent population is an important factor in understanding delinquency and why youth participate in delinquent behavior.

## Conclusions

The current study examined the relationship between delinquency, risky sexual behavior and substance use. The purpose of the current study was to investigate the relationship between risky sexual behavior and delinquency in the youth population. A secondary purpose of the current study was to investigate the relationship between substance use and delinquency in the youth population. Results from the current study concerning substance/alcohol use playing a significant key role in delinquency amongst young adults was confirmed and added to previous literature on the young adult population. This suggests that youth who participate more in substance/alcohol use are more likely to participate in delinquent behaviors. Results regarding

risky sexual behavior and delinquency in the young adult population were confirmed as well. This suggests that risky sexual behavior may influence delinquency patterns in the young adult population. It also suggests that the riskier sexual behavior a youth engages in the more likely they are to participate in delinquent behaviors. Results regarding risky sexual behavior and substance use were confirmed. This suggests that substance use may influence risky sexual behavior in the youth population.

## Future directions

There is a need to further examine the factors that influences delinquency in the youth population. Future studies should use a longitudinal design in order to follow youth at-risk from the point of their first minor delinquent offense through adulthood. Further exploration on delinquency within the youth population will aid in the understanding of the influences surrounding delinquency in the youth population that have not yet been thoroughly examined. Additionally, it is important to consider other important factors that play a role in delinquency. Dijkstra et al [28] suggests that the recent rise in juvenile delinquency may be due to a "maturity gap" when it comes to delinquent juveniles. This maturity gap continues as the youth progresses into young adulthood and influences them to continue to participate in delinquent behaviors. The study conducted by Dijkstra et al [28] found that a juvenile's biological maturation in interaction with their social maturation predicted conflict with parents, which in turn was related to higher levels of delinquency and substance use over time in juveniles in the Netherlands.

Another important factor that should be researched is the mental and intellectual capacity of the delinquent youth. A study conducted by Burke, Mulvey & Schubert [29] found that among a sample of juveniles in the juvenile justice system, 74.3 % of the sample met the criteria for Oppositional Defiance Disorder, Attention Deficit Hyperactivity Disorder, Depression, Anxiety and Conduct Disorder. Examining delinquency from this angle provides an alternate explanation as to why youth may participate in delinquent behaviors. Emotional factors such as these may cause some youth to express their feeling by acting out inappropriately. Having different perspectives into delinquency provides different theories and approaches into alleviating the issue.

Peter Greenwood [30] suggests that violence prevention programs should target family interventions through therapeutic programs. Gilligan and Lee [31] suggest that instead of punishing juveniles for their delinquent behaviors, "anti-prison" therapeutic communities should be implemented in order to prevent youth from participating in delinquent behavior [32-40]. In all, it is only when researchers thoroughly explore all factors that possibly influence delinquency in the youth population that effective preventative measures can be implemented in order to prevent youth from chronically participating in delinquent behaviors.

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