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Binge Drinking and Drug Use Among College Students: A Test of Hirschi's Social Control Theory

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BINGE DRINKING AND DRUG USE AMONG COLLEGE STUDENTS: A TEST OF HIRSCHI'S SOCIAL CONTROL THEORY

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ABSTRACT

BINGE DRINKING AND DRUG USE AMONG COLLEGE STUDENTS:
A TEST OF HIRSCHI'S SOCIAL CONTROL THEORY

by Katelyn M. Riley

This thesis tests Travis Hirschi's Social Control Theory using a sample of college students. The purpose of the study was to examine whether social bonds (attachment, commitment, involvement, and belief) impact binge drinking and drug use among college students. In addition, this study assessed the need for drug and alcohol intervention and prevention measures.

Random classes were selected from a college catalogue, and a total of five classes were surveyed. The total sample size was 193 students from a Bay Area university.

The research revealed little support for Hirschi's theory. Contrary to the theory, the research showed that attachment to peers increased the likelihood of student binge drinking and drug use. Specifically, students who respected their best friend's opinions about the important things in life were more likely to binge drink, while students who wanted to be more like their friends were more likely to use drugs. However, consistent with Hirschi's assertion, believing it is okay to get around the law if one can get away with it increased the likelihood that a student used drugs, and respect for police decreased the likelihood that a student used drugs.

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Chapter I

Introduction

There has been much attention given to the range of dangers resulting from heavy alcohol use and drug use by college students. These well-documented risks include academic problems, injuries, automobile accidents and fatalities, violence, high-risk sexual behavior, and sexual victimization (Hoover, 2002; O'Grady, Arria, Fitzelle, and Wish, 2008). According to Yusko, Buckman, White, and Pandina (2008), rates of heavy alcohol use, tobacco use, and illicit substance use peak between the ages of 18 and 25. Furthermore, alcohol and other drug use represents the greatest cause of preventable death and injury among U.S. college students from 18 to 24 years of age (McCabe, Hughes, Bostwick, and Boyd, 2005). Recently there has also been special interest given to the nonmedical use of prescription drugs as a significant public health issue (Arria, O'Grady, Caldeira, Vincent, and Wish, 2008).

Drug use and binge drinking among young adults can be explained by various theories including Differential Association (Sutherland, 1939), General Strain Theory (Agnew, 1985b), and Social Learning Theory (Akers, 1985). In this thesis, I selected Hirschi's Social Control Theory, which explains why people conform to societal norms rather than why they commit different deviant acts. Hirschi's theory is more appropriate than the other perspectives because it helps explain how and which social bonds deter young adults from engaging in binge drinking and drug use.

Travis Hirschi's (1969) social control theory is considered a significant contribution in explaining deviant behaviors (Frazier, 1976 as cited in Krohn, Massey, Skinner, and Lauer, 1983). Hirschi explained that all people have a natural ability to commit deviant acts. Thus deviance does not need to be explained, but rather conformity to social norms does. Hirschi formulated the theory and tested it on a sample from the Richmond Youth Project, which consisted of 17,500 students entering the 11 public junior and senior high schools in the fall of 1964. The theory is generally used to explain juvenile delinquency.

In *Causes of Delinquency* (1969), Hirschi explained that delinquency is the result of an individual's weak or broken bond to society. He also stated that there are four elements of the bond to conventional society: attachment, commitment, involvement, and belief. Attachment refers to the affective or emotional attachment to conventional significant others, such as parents, teachers, and peers. Hirschi (1969) explains, "If a person does not care about the wishes and expectations of other people—that is, if he is insensitive to the opinion of others—then he is to that extent not bound by the norms. He is free to deviate" (p. 18).

The second element of the bond to society is commitment. Commitment is the rational component of the bond and refers to an investment in conventional activities and goals such as an education and a job. Hirschi (1969) states, "Few would deny that men on occasion obey the rules simply from fear of the consequences. This rational component in conformity we label commitment…when or whenever he considers deviant

behavior, he must consider the costs of this deviant behavior, the risk he runs of losing the investment he has made in conventional behavior" (p. 20).

The third element of the bond is involvement, which refers to the amount of time and energy an individual spends participating in conventional activities. Hirschi (1969) wrote, "The assumption, widely shared, is that a person may be simply too busy doing conventional things to find time to engage in deviant behavior…so the opportunity to commit deviant acts rarely arises" (p. 22).

Finally, the fourth element of the bond is belief. This component of the bond assumes that there is a common value system in society. Belief also refers to the degree of acceptance, endorsement, and internalization of societal values, norms, and laws, including actors in the criminal justice system. Hirschi (1969) explains, "We assume…that there is variation in the extent to which people believe they should obey the rules of society, and, furthermore, that the less a person believes he should obey the rules, the more likely he is to violate them" (p. 26).

Since the establishment of Hirschi's social control theory, many criminologists have tested his theory. The theory has become one of the dominant theories of delinquency because it has received much empirical support (Agnew, 1985a). For example, Krohn and Massey (1980) examined the overall impact of social control theory on four measures of deviance (alcohol and marijuana use, use of stronger drugs, minor delinquent behavior, and serious delinquent behavior) using data from a sample of 3,065 adolescents. They found moderate support for Hirschi's theory for all four deviant behavior scales. Furthermore, Wiatrowski, Griswold, and Roberts (1981) examined how

the four elements of the bond operate in relation to delinquency. They found that all four elements of the bond made significant and direct contributions to the explanation of delinquent behavior.

To date, there have been only a few studies that have applied social control theory to college students. One of those studies was done by Zullig, Young, and Hussain (2010) who surveyed 301 undergraduates at one southern university to determine which factor—social bonding or sexual attractiveness—accounts for greater variation in college students' decisions to engage in potentially risky drinking. They found that the social bonding factor was the more important of the two predictive factors for both males and females. In another study, Cherry (1991) measured alcohol use among college seniors in a small, semi-rural, mid-Atlantic coastal college using psychosocial scales based on the concept of social bonds. Three out of 28 psychosocial scales (i.e., perceived parental approval of teenage drinking, drinking standards, and tolerance of minor deviance) accounted for 81% of the variance in current alcohol use. Perceived parental approval of teenage drinking had a moderate direct and indirect effect on alcohol use suggesting that family attitudes can affect individual drinking decisions. This finding suggests that if an individual is attached to his or her parents, and the parents approve of teenage drinking, then the individual is more likely to drink. The variable drinking standards had a total causal effect similar in strength to perceived parental approval of teenage drinking. Tolerance of minor deviance had the strongest total causal effect on present alcohol use. In other words, the more a student tolerated minor deviance, the more alcohol he or she

reported using. Perhaps this is because students do not believe drinking is deviant or harmful.

As illustrated by the above studies, there is a dearth of information on how social control theory applies to young adults. In addition, in the studies in which this theory has been applied to college students only binge drinking and drunk driving have been examined. Thus, this study adds to the literature by examining the prevalence of binge drinking and drug use among college students, in a large public university, using Hirschi's (1969) social control, or bonding, theory. The purpose of this study was twofold: to test the applicability of Hirschi's (1969) social control theory to a sample of college students at one Bay Area public university and to examine the level of alcohol and drug use by students to assess the need for education and/or prevention measures.

Chapter II

Review of the Literature

It is generally accepted, in criminological research, that involvement in most crime peaks in the late teenage years and then declines with age (Sampson & Laub, 1992). Nevertheless, a small number of people continue to engage in deviant and criminal behavior in adulthood. The college years fall under the emerging adulthood stage of the life course. Arnett (2000) defined emerging adulthood as the stage of the life cycle that begins after high school, around age 18, and ends with the adoption of adult roles, around age 25. This stage of the life course is marked by an increase in autonomy wherein individuals begin seeking adult identities within a context dominated by peer interaction (Vander Ven, 2011). Research shows a link between deviance in adolescence and troublesome adult behaviors; specifically, deviant behavior in childhood is one of the best predictors of deviant behavior in adulthood (Sampson & Laub, 1992).

Alcohol Use

People in the United States have traditionally consumed large quantities of alcohol (Abadinsky, 2004). Nearly one in three Americans in the general population abuse or become dependent on alcohol at some point in their lives and most never seek treatment (Read, 2010).

In the United States, the prevalence of alcohol use among high school students has remained above 50% for several decades (Hoffman, 2006). According to the Monitoring the Future Study, 39% of eighth grade students and 72% of high school

seniors have consumed alcohol (Belendiuk, Molina, & Donovan, 2010). In addition, annual surveys consistently indicate that about 30% of high school seniors report binge drinking in the past year (Hoffman, 2006).

Juveniles are not the only ones that abuse alcohol. Alcohol use has also been an important feature of the American college experience since the eighteenth century (Vander Ven, 2011). Murray Sperber (2000) explained that in the eighteenth century, only rich men would attend college and they considered academic work an intrusion on their fun and were content to earn a "gentleman's C" (p. 4). Women started attending college in the 1850s and quickly took part in the alcohol consumption that was already rooted in college culture (Vander Ven, 2011). Unlike males, females experienced more social controls by school administrators (Vender Ven, 2011).

Recently, binge drinking has become a national concern. It should be noted that there has been some debate and controversy regarding the measurement of binge drinking. The term "binge drinking" is socially constructed and defined. In the 1950s, the term "binge" was used to describe the consumption of a large amount of alcohol over several days or weeks (Fillmore & Jude, 2011). Today, it is applied to heavy alcohol consumption during a short amount of time (Fillmore & Jude, 2011). In recent years, in order to better operationalize the term binge drinking, two definitions have been created. One commonly used definition of binge drinking is the consumption of five drinks or more in one sitting for men and four drinks or more in one sitting for women during a two-week period (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994; Fillmore & Jude, 2011). In 2004, the National Institute on Alcohol Abuse and Alcoholism

(NIAAA) defined binge drinking as the consumption of alcohol that brings a person's blood-alcohol content (BAC) to 0.08 percent, which typically happens when a man consumes five or more drinks, or a woman consumes four or more drinks, in about two hours. The two definitions mentioned above have been criticized because they do not take into account a person's body weight, the total time of the drinking occasion or session, and a person's drinking frequency (Fillmore & Jude, 2011; Read, Beattie, Chamberlain, & Merrill, 2008).

Most students experiment with alcohol in high school but there is a striking increase in the frequency and amount of consumption when students enter college (Wechsler, Kuh, & Davenport, 2009; White, Labouvie, & Papadaratsakis, 2005; White, McMorris, Catalano, Fleming, Haggerty, & Abbott, 2006; Johnston, O'Malley, & Bachman, 1994; Wechsler, et al., 1994). This increase in alcohol consumption is associated with many problems including missed classes, low grades, physical altercations, injuries, automobile accidents and fatalities, reduced productivity, high risk sexual behavior, and sexual victimization (O'Grady et al., 2008; Wechsler et al., 2009). As a result, college presidents rank alcohol abuse as the number one problem on campus (Wechsler, 1996).

Binge drinking has often been associated with younger drinkers; particularly college aged men and women (Newton, 2010). There is a good reason for this association. For example, the proportion of binge drinkers is highest in the 18 to 20 years age group (Newton, 2010). In addition, 90 percent of the alcohol consumed by under age drinkers is consumed during binges (Naimi, Brewer, Mokdad, Denny, Serdula, & Marks,

2003). Binge drinking among older drinkers is also a concern. According to Newton (2010), individuals over the age of 25 are responsible for 70 percent of all binge-drinking episodes. A Harvard School of Public Health College Alcohol Survey, which included 140 campuses nationwide, found that 84 percent of all students surveyed reported drinking during the school year, with 44 percent of students qualifying as binge drinkers, and 19 percent as frequent binge drinkers (Wechsler, 1996). Furthermore, those who are frequent binge drinkers are 21 times more likely to experience negative consequences than non-binge drinkers (Wechsler, Lee, Kuh, & Lee, 2000).

In their study, Shinew and Parry (2005) found that 83.6% of their sample, of college students, reported they drink alcohol. The average number of days the students reported drinking in one week was 2.5 and the average number of drinks the students reported drinking during one occasion was 5.7 (Shinew & Parry, 2005). Bennett, Miller, and Woodall (1999) found similar results. They found that 80% of students reported being current drinkers and over a third of students reported being binge drinkers. In addition, binge drinkers reported consuming eight times the number of drinks per week, and significantly more substance-related negative consequences, than students who did not binge drink. Binge drinking also appears to be associated with the use of a variety of other illicit drugs (O'Grady et al., 2008).

A 2002 report by the NIAAA's Task Force on College Drinking concluded that the annual toll of drinking for American College students is enormous: 70,000 alcohol-related sexual assaults; 600,000 alcohol-related assaults; and 1,445 alcohol-related deaths

from injuries and accidents, about three-fourths of which are the result of car accidents (Conklin, 2007).

The Alcohol-Crime Relationship

Alcohol and crime are strongly associated with each other but are not causally linked (Conklin, 2007). According to studies that have used official crime statistics, alcohol is present in a significant proportion of homicides and assaults, and a smaller proportion of rapes (Conklin, 2007). In addition, alcohol is linked with more violent crimes than cocaine, crack, heroin, or any other illegal drug (Read, 2010). In fact, alcohol abuse has been identified as a significant factor in 40 percent of violent crimes in the United States (Read, 2010). For example, Felson and Staff (2010) examined the role of alcohol on different types of criminal behavior and found that intoxication played the strongest role in homicide and physical and sexual assault but also played a role in robbery and burglary. Bennett and Holloway (2009) interviewed drug-using offenders imprisoned in the United Kingdom about the role of drug use in their recent crimes and found that the most common drug associated with assault was alcohol. Furthermore, three out of four, or 75 percent of, incidents of violence against spouses involves alcohol use by the offender (Greenfeld, 1998). Overall, there seems to be a consensus that there is a strong connection between alcohol use and crime.

Drug Use

The most prevalent form of delinquent behavior is substance use (Newcomb & Bentler, 1988). According to the Monitoring the Future survey, daily marijuana use increased among 8th, 10th, and 12th graders from 2009 to 2011 (Johnston, O'Malley,

Bachman, & Schulenberg, 2011). In addition, daily marijuana use by 12th graders in 2011 was at its highest point, 6.6 percent, since the early 1980s (Johnston et al., 2011). Lifetime, past year, and past month use of cocaine either stayed the same or decreased for all three grades (Johnston et al., 2011). Ecstasy use by 8th and 10th graders increased in all three categories (lifetime, past year, and past month), while ecstasy use by 12th graders only increased for lifetime and past year use (Johnston et al., 2011). Methamphetamine use by 8th graders increased in all three categories (lifetime, past year, and past month) while the only increase for 10th graders was past month use (Johnston et al., 2011). Methamphetamine use by 12th graders decreased or stayed the same for all three categories (Johnston et al., 2011).

Juveniles are not the only ones to use illegal drugs. In fact, illicit substance use peaks between the ages of 18 and 25 (Yusko, et al., 2008). The Center for Addiction and Mental Health surveyed 7,800 undergraduates at 16 universities across Canada in 2000 and found that 47% of the students reported having used marijuana at some point in their lives and 10.2% reported having used an illegal substance within the 12 months preceding the survey (Shinew & Parry, 2005). The Center on Addiction and Substance Abuse (CASA) at Columbia University found that between 1993 and 2005, the percent of college students having used an illegal drug in the previous year increased from 30.6% to 36.6%, with cocaine and ecstasy increasing the most (O'Grady, et al., 2008). Shinew and Parry (2005) surveyed 740 undergraduates about their drug use and found that men were more likely to report using drugs as well as white students. In addition, the authors found

that sophomores and juniors reported using drugs more than seniors and freshman, 30%, 28%, 18% and 16% respectively (Shinew & Parry, 2005).

The Drug-Crime Relationship

Although drug use is not causally linked to crime, drug use among offenders is extensive and is associated with greater involvement in other criminal activities (Conklin, 2007). According to Harrison and Gfroerer (1992), there is a high correlation between drug use and being booked for property and violent crimes. Bennett and Holloway (2009) found that most of the narratives provided by the offenders, in their sample, described situations in which drug use influenced crime (89 percent) while the remainder (11 percent) described situations in which crime influenced drug use. Similarly, Wright and Decker (1997) interviewed active armed robbers in Saint Louis, Missouri and found that the proceeds from the robberies were often used for pleasure-seeking purposes, which usually involved drug use (Bennett & Holloway, 2009).

Carpenter, Glassner, Johnson, and Loughlin (1988) interviewed 100 young people in New York about the relationship between their drug use and crime. They found that thefts were typically committed in order to obtain money for drugs and burglaries were often committed intentionally under the influence because the drug made it easier for them to commit the crime. Similarly, Bennett and Wright (1984) found that sometimes burglars had already decided to commit a crime and consumed drugs to give them the courage to act. Carpenter et al. (1988) also found that violence was often the result of the pharmacological effects of recent drug use. Likewise, Bennett and Holloway (2009) found that the pharmacological effects of a drug were most frequently associated with

assault (91 percent) followed by burglary (46 percent). In addition, Wright and Klee (2001), in their study, found that amphetamine users became involved in violence as a result of the psychoactive effects of the drug in providing confidence and energy. Feucht (1993) studied the relationship between crack use and prostitution and found that they were connected in several ways. The women used crack to enable them to cope with the difficult work conditions, to make the women feel sexy, to reduce their inhibitions, and to make the client feel more comfortable.

The Origin of Social Control Theory

The classical school of criminology was developed during the Enlightenment Era (Conklin, 2007). Early classical criminologists believed that all individuals are independent, reasoning, and rational decision makers; thus, they have free will and can determine their own destiny (Einstadter & Henry, 2006). They also believed that people are hedonistic; they are motivated by wanting to maximize pleasure while minimizing pain (Einstadter & Henry, 2006). Therefore, classical criminologists believe people can be controlled through fear, especially fear of pain; thus, classical criminologists rely on the criminal justice system (Conklin, 2007).

Positivism developed in response to the classical school of criminology during the early nineteenth century. Positivists wanted to learn the causes of crime and then eliminate the conditions that produce it (Conklin, 2007). Modern criminology has been dominated by this perspective, while the criminal justice system has been primarily influenced by the classical school. Contrary to classical criminologists, positivists claim

that human behavior is subject to causal laws (Conklin, 2007). In other words, human behavior is influenced by factors outside the individual's control.

Before Hirschi's (1969) bonding theory, there were several other social control theorists. The earliest social control theorist was Albert Reiss. In 1951, Reiss defined delinquency as the "behavior consequent to the failure of personal and social controls to produce behavior in conformity" (196). He explained that it was essential for primary groups, such as the family, to reinforce non-delinquent roles and values to prevent delinquency (Jensen, 2003).

Nye, in 1958, focused on the family as the origin of social control (Einstadter & Henry, 2006). He stated that socialization is important in order for an individual to develop a conscience, which is one feature of internalized control (Einstadter & Henry, 2006). He also stressed the importance of affectional ties to significant others in one's life, such as parents (Einstadter & Henry, 2006).

In 1961, Reckless published his containment theory, which assumes that delinquency is the result of poor self-concepts; thus, if the individual has a positive view of self, and a positive self-perception, he or she is insulated against the pressures and pulls toward delinquency (Shoemaker, 1984). On the other hand, if people reacted negatively toward the individual, it would most likely result in a negative self-image and the loosening of ties to conventionalism (Einstadter & Henry, 2006). According to Reckless, these pressures, pulls, and drives affect the individual simultaneously and come from both inside and outside the individual (Shoemaker, 1984). Toby, in 1957, argued that having an investment in something an individual would not want to lose would

protect against law violation (Einstadter & Henry, 2006). This view is similar to Hirschi's commitment element of the bond. If the individual is invested in something, they may not want to risk losing the time and energy they put into that investment to commit a deviant or criminal act.

Application of Hirschi's Social Control Theory

Attachment to Significant Others and School

Hirschi (1969) defined attachment as the affective or emotional attachment to conventional significant others, such as parents, teachers, and peers. There have only been a few studies that specifically applied Hirschi's (1969) social control theory to adult deviant or criminal behavior.

One study on binge drinking applied social control theory to explain alcohol use by college students (Cherry, 1991). He found that, overall, students who had a weak or broken social bond were likely to use alcohol in larger quantities than students with a strong social bond. Specifically, perceived approval of teenage drinking by parents was associated with higher levels of alcohol consumption. Durkin, Wolfe, & Clark, (1999) found results contrary to Hirschi's theory; Students who had stronger attachments to parents tended to be more frequent binge drinkers (Durkin et al., 1999).

Durkin, Wolfe, and May (2007) applied Hirschi's social control theory to drunk driving by college students. For the attachment component of the bond, they included an attachment to parents scale and asked if the students lived with family members.

Attachment to parents was not statistically significant but living with family members was. Students who lived with family members were more likely, than other students, to report driving after having too much to drink (Durkin et al., 2007).

Voller and Long (2010) surveyed 521 college men about perpetrating rape and sexual assault. They found that rape perpetrators reported lower levels of agreeableness, warmth, openness to feelings, and altruism. These findings suggest that rape perpetrators may be less affectionate and have greater difficulty forming close attachments to others (Costa & McCrae, 1992).

Cherry (1991) found, in his application of social control theory to alcohol consumption by college students, that attachment to school was associated with lower levels of alcohol consumption. Furthermore, Cherry's (1991) found that using friends as models for drinking was associated with higher levels of alcohol consumption.

Commitment to Education, Employment, and Religion

Hirschi (1969) described the commitment element of the bond as including aspirations and expectations as well as participation in conventional lines of action. This includes obtaining an education, working for pay, and being religious.

Cherry (1991) found that GPA was associated with lower levels of alcohol consumption, while value placed on educational achievement was associated with increased levels of alcohol consumption. Similarly, Durkin et al. (1999) found a significantly negative relationship between GPA and frequency of binge drinking. The authors also included a commitment to higher education variable, which was also significantly negatively correlated with binge drinking, contrary to Cherry's (1991)

finding. This indicates that students who frequently binge drink are less committed to their education (Durkin et al., 1999). Although both GPA and the commitment to higher education variables were significantly associated with binge drinking, when considering all commitment variables simultaneously in a multivariate model, only GPA was a significant predictor of binge drinking (Durkin et al., 1999). In Durkin et al.'s (2007) study on drunk driving by college students, both GPA and commitment to higher education were significantly related to drunk driving. Students who had a GPA over 2.0 and students with a high degree of commitment to education were less likely than other students to report drunk driving (Durkin et al., 2007).

Cherry (1991) found that employment was associated with lower level of alcohol consumption by college students, which is consistent with Hirschi's theory. Similarly, Durkin and colleagues (1999) found that time spent working at a job was significantly negatively associated with frequency of binge drinking. In contrast, Durkin and colleagues (2007), in their study on drunk driving, found that hours spent working at a job was positively related to drunk driving.

Furthermore, Cherry (1991) found, in his study on alcohol consumption by college students, that the more religious a student was, the less he or she drank. Durkin et al. (1999) found the same results; religious commitment was negatively correlated with frequency of binge drinking. Similarly, Durkin et al. (2007) found that religious commitment was negatively associated with drunk driving. Chawla, Neighbors, Lewis, Lee, and Larimer (2007) evaluated the role of perceived drinking norms as a mediator of the relationship between the importance of religion and alcohol use using a sample of

1,400 undergraduate students. They found that personal approval of alcohol use was the strongest mediator of the relationship between importance of religion and alcohol use followed by the approval of close friends. Findings suggest that importance of religion may have an indirect affect on alcohol use via personal attitudes and the perceived approval of important others.

Involvement

Hirschi (1969) described involvement as the amount of time spent in conventional activities, such as sports, clubs, volunteer work, etc. The more time a person spends engaging in conventional activities, the less time they will have available to engage in delinquent behaviors.

The prevalence of annual alcohol use by intercollegiate athletes is about 80%, which is higher than the national average of about 44% of college students (Brenner & Swanik, 2007). Many studies on alcohol use by college athletes compare athletes and non-athletes. For example, Doumas, Turrisi, Coll, and Haralson (2007) compared heavy drinking and alcohol-related consequences between freshman student athletes and non-athletes using a sample of 455 students. They found that student athletes reported heavier drinking, more drunkenness, and more alcohol-related consequences than non-athletes. Similar to Doumas et al.'s (2007) findings, Nelson and Wechsler (2001) found that student athletes reported binge drinking at higher rates and experienced more alcohol-related consequences than non-athletes. Wilson, Pritchard, and Schaffer (2004), in their study on the drinking behaviors of college students, found that student athletes reported drinking more frequently, consuming greater quantities of alcohol per drinking occasion,

and drank to the point of intoxication more often than non-athletes. Yusko, et al. (2008) compared the prevalence, quantity, and frequency of alcohol use by undergraduate student athletes and non-athletes using a sample of 893 students. They found that only male athletes reported a significantly higher average number of heavy drinking episodes and significantly higher number of drinks per occasion, during the past year, than non-athletes.

Brenner and Swanik (2007) examined alcohol use by college athletes to see if alcohol use varied by time of year, type of sport, and level of competition. The authors found that male athletes reported significantly higher levels of drinking than female athletes, 80% and 68% respectively. In addition, athletes participating in team sports reported significantly more high-risk drinking than athletes participating in individual sports, 84% and 57% respectively. Eighty percent of the college athletes that did report binge drinking in the past two weeks reported consuming less than normal amounts of alcohol during the competitive season. The results also suggest that there were a higher percentage of high-risk drinkers in the more competitive divisions (I and II) than in Division III. Wechsler and Davenport (1997), while examining binge drinking among a random sample of college students at 140 American colleges, found that students who were involved in college athletics engaged in binge drinking more often than students not involved in athletics. Lastly, they found that the strongest predictors of binge drinking among students in athletics were residence in a fraternity or sorority, a party lifestyle, engagement in other risky behaviors, such as using marijuana, and binge drinking in high school.

As stated earlier, most high school students consume alcohol but increase their consumption upon entering college. The evidence shows that there is a relationship between drinking in high school and Greek membership. For example, Caron, Moskey, and Hovey (2004) found that most of the fraternity and sorority members drank during high school and increased their consumption upon entering college, while Wechsler and colleagues (2009) found that students who drank in high school were more likely to join a fraternity or a sorority. There is an abundance of studies on alcohol use by college students involved in a fraternity or sorority. Virtually every study of drinking in college shows fraternity members tend to drink more heavily, more frequently, and have more alcohol-related problems than their fellow students (Wechsler et al., 2009). Similarly, Neighbors, Lee, Lewis, Fossos, and Larmer (2007) found, in their study, that fraternity and sorority membership was associated with greater alcohol consumption and alcohol-related problems.

Wechsler et al. (2009) compared the drinking behavior of fraternity and sorority members with nonmembers to determine if public perceptions of alcohol use were warranted. The results showed that fraternity and sorority members engaged in binge drinking to a much greater extent than college students in general. For example, 89% of fraternity house residents engaged in binge drinking compared to 45% of nonmembers. Greek members were also more likely to experience harmful effects of binge drinking than nonmembers. In addition, 57% of fraternity residents and 43% of sorority residents were frequent binge drinkers (three or more binge drinking occasions in 2 weeks). Lastly, Wechsler et al. (2009) found that 69% of fraternity men and 49% of sorority

women said partying was important. Caudill, Crosse, Campbell, Howard, Luckey, and Blane (2006) used a sample of 3,406 college students in one national fraternity, spanning 32 states, to examine high-risk drinking behaviors and predictors of drinking. They found that among all members, 97% were drinkers, 86% were binge drinkers, and 64% were frequent binge drinkers. Furthermore, during the 30 days prior to the survey, students reported, on average, drinking on 10.5 days and consuming 81 drinks.

Theall, DeJong, Scribner, Mason, Schneider, and Simonsen (2009) examined the association between individual- and campus-level participation in activities and harmful drinking outcomes. The specific activities they examined were community service or volunteer work, Greek membership, participation in a religious group, and participation in a varsity athletic team. The authors found that the more times per week a student spent volunteering or participating in a religious group, the fewer adverse drinking outcomes they reported, while participation in a varsity athletic team and Greek membership were associated with greater consumption patterns and problems due to alcohol. Similarly, Ward and Gryczynski (2007) found that undergraduate students who were involved in organized recreational sports team reported significantly higher levels of alcohol use than did students who did not participate in organized recreational sports, and that students who identified as Greek members reported a significantly greater typical number of drinks per night than students who were not Greek members (Ward & Gryezynski, 2007). Durkin et al. (1999) used time spent studying as one measure of involvement and found that the more time a student spent studying the less likely he or she was to binge drink. Similarly, Durkin and colleagues (2007) included hours spent studying and

extracurricular activities in the involvement component of the bond. They found that hours spent studying was negatively related to drinking and driving. For extracurricular activities, if students spent one to ten hours per week participating in extracurricular activities, they reported significantly lower levels of drunk driving compared to students who were either not involved or were very involved (11 or more hours per week) (Durkin et al., 2007).

There are also many studies on the relationship between alcohol use in college and social norms. For example, Neighbors and colleagues (2007) evaluated the contribution of social norms, drinking motives, and alcohol expectancies in predicting alcohol consumption and related problems among heavy-drinking college students using a sample of 818 freshman undergraduates. The authors found that perceived prevalence of drinking and perceived approval of drinking by others (friends and parents), were among the best predictors of college student drinking. Lewis and Paladino (2008) studied social norms and alcohol consumption by college athletes by asking them how much alcohol they think a typical teammate, a typical male athlete, and a typical female athlete consumes. The students were asked the same question about the typical student, typical male student, and typical female student. The authors found that normative beliefs about student athletes' alcohol consumption were the only significant contribution to quantity and frequency of alcohol consumption for self. Mallett, Bachrach, and Turrisi (2009) examined the relationships between both inter- and intrapersonal perceptions of drinking and reported drinking behavior using a sample of 303 college students. They found that closest friend's drinking was the only interpersonal variable that was significantly related

to all three drinking outcomes (typical weekly consumption, typical weekend consumption, and peak drinking occasion). In addition, the only intrapersonal variables significantly associated with alcohol consumption, across all three drinking outcomes, were a student's own drinking intentions and perceptions of drunkenness (Mallett et al., 2009).

Wechsler and Davenport (1997) also examined tobacco use and illicit drug use among their random sample of college students at 140 American colleges and found that students who were involved in athletics chewed tobacco more than students who were not involved in athletics, but they were less likely to smoke cigarettes or use marijuana. Shinew and Parry (2005) examined drug use by college students and found that fraternity and sorority members were more likely to report that they use drugs. Similarly, in the Harvard Alcohol Study (2005), non-medical users of prescription stimulants were more likely to be fraternity or sorority members (Herman-Stahl, Krebs, Kroutil, & Heller, 2007).

Belief in a Moral Order

In social control theory, it is assumed that there is one common value system within a society. For the belief component of the bond, Hirschi (1969) included values related to law and the legal system as well as acceptance of society's norms and beliefs.

Durkin and colleagues (1999), in their study applying social control theory to binge drinking by college students, found that the belief component of the bond was the best predictor of binge drinking. Specifically, the more students respect authority and accept conventional beliefs, the less likely they are to binge drink (Durkin et al., 1999).

Similarly, Durkin et al. (2007) found that students who respected authority and students who accepted conventional beliefs, were less likely than their peers to drive after drinking too much. Students who reported the lowest levels of acceptance of conventional beliefs were over two times more likely to drink and drive (Durkin et al., 2007).

Hypotheses

Binge Drinking

1A. Students who are attached to parents are less likely to binge drink than students who are not attached to parents, controlling for sex, age, and race (being white, Latino, Asian, or other).

1B. Students who are attached to teachers and school, are less likely to binge drink than students who are not attached to teachers and school, controlling for sex, age, and race (being white, Latino, Asian, or other).

1C. Students who are attached to peers, are less likely to binge drink than students who are not attached to peers, controlling for sex, age, and race (being white, Latino, Asian, or other).

2. Students who are committed to conventional lines of actions are less likely to binge drink than students who are not committed to conventional lines of action, controlling for sex, age, and race (being white, Latino, Asian, or other).

3. Students who are involved on campus are less likely to binge drink than students who are not involved on campus, controlling for sex, age, and race (being white, Latino, Asian, or other).

4. Students who have accepted the normative system are less likely to binge drink than students who have not accepted the normative system, controlling for sex, age, and race (being white, Latino, Asian, or other).

Drug Use

5A. Students who are attached to parents are less likely to use drugs than students who are not attached to parents, controlling for sex, age, and race (being white, Latino, Asian, or other).

5B. Students who are attached to teachers and school are less likely to use drugs than students who are not attached to teachers and school, controlling for sex, age, and race (being white, Latino, Asian, or other).

5C. Students who are attached to peers are less likely to use drugs than students who are not attached to peers, controlling for sex, age, and race (being white, Latino, Asian, or other).

6. Students who are committed to conventional lines of actions are less likely to use drugs than students who are not committed to conventional lines of action, controlling for sex, age, and race (being white, Latino, Asian, or other).

7. Students who are involved on campus are less likely to use drugs than students who are not involved on campus, controlling for sex, age, and race (being white, Latino, Asian, or other).

8. Students who have accepted the normative system are less likely to use drugs than students who have not accepted the normative system, controlling for sex, age, and race (being white, Latino, Asian, or other).

Chapter III

Methodology

Data Collection Procedures

The sample of this study is students at a large, local state university located within the Northern Bay Area of California. The sample was obtained by randomly selecting classes out of the university's course catalogue during the fall 2010 semester. Every 50th class was selected and among those, about twenty classes were chosen. The teachers of those classes were then emailed and asked if it was possible to administer a survey to their class. Of those 20 classes, the teachers of five classes responded and the questionnaire was administered in those classes. The disciplines were Child and Adolescent Development, English, History, Justice Studies, and Sociology. The questionnaires were filled out in class and the students were instructed to detach the consent form from the questionnaire for their records.

The original sample size was 194 students. However, one questionnaire was excluded because approximately half of the questions were not answered. Thus, the final sample size was 193, which was a 99.5% response rate. IRB approval was obtained during the spring semester of 2010. The approval letter is included in Appendix A.

Confidentiality and Anonymity

All surveys were voluntary and anonymous. Before the survey was administered, the students were told the purpose of the study, that their participation was completely voluntary, that they did not have to answer any questions they did not want to answer,

and that they could stop participating at any time. The students were assured that their surveys were anonymous and no one but the researcher would see them. A consent form was attached to the front of each questionnaire, which also included this information. After the students finished their survey, they placed them in a box on a table in the front of the classroom. After all surveys were collected, the box was sealed. A copy of the questionnaire is included in Appendix B.

Methods of Analysis

For this study, all statistical analyses were conducted using SPSS/PC. Multiple regression analysis was used to examine each hypothesis.

Multiple Regression analysis is used to specify the relationship between the dependent variable and a number of independent, or control, variables. The "R^2" is the amount of variance in the dependent variable explained by the independent variable(s). The standardized beta coefficient, "B", is used to compare strengths of effects while the unstandardized beta coefficient, "b", is the rate of change in the dependent variable as it relates to the independent variable(s). The "Sig." value, or p-value, is the probability of the regression coefficients being incorrect. The "SEB" is the estimated standard error of the slope and the intercept.

When a large number of variables enter regression analysis, researchers commonly use factor analysis to combine a number of interrelated variables into a limited number of dimensions or factors (Frankfort-Nachmias & Nachmias, 2008). It is especially useful for creating multiple-item scales where each scale represents one dimension of an abstract concept (Frankfort-Nachmias & Nachmias, 2008). It also helps

increase the efficiency and validity of the research by helping to identify the most powerful indicators of a concept (Frankfort-Nachmias & Nachmias, 2008). Since the present study consists of a large number of questions for each independent variable (i.e., attachment, commitment, involvement and belief), factor analyses were conducted to test each element of the bond as a whole in predicting binge drinking and drug use. However, the regressions (not shown here) showed that none of the combined scales reached significance.

In an attempt to explain delinquent behaviors, past researchers have constructed slightly different and modified versions of questionnaires since Hirschi constructed his original questionnaire in 1964. The outcomes of past studies produced inconsistent and mixed results regarding the relationship between each bond and delinquency, depending on how these bonds were measured operationally (e.g., Matsueda, 1982 and Greenberg, 1999). Therefore, instead of using a set of factors, the present study attempted to use all sets of questions for each bond in order to examine which question predicts the likelihood of binge drinking and drug use.

Operationalization of Variables

Dependent Variables

The first dependent variable was binge drinking. Conceptually, binge drinking was defined as the consumption of five or more drinks in one sitting for males and four or more drinks in one sitting for females. Operationally, binge drinking was defined as

"How many times during the past month did you "binge drink"?" The answer was self-reported. The responses are displayed in Table 1.

Table 1

Student's Binge Drinking Frequency in the Past Month

Times Student Binge Drank During Past Month	Frequency	Percent
0 Times	59	44.4
1 Time	22	16.5
2 Times	22	16.5
3 Times	12	9.0
4 Times	6	4.5
5 Times	2	1.5
6 Times	3	2.3
7 Times	2	1.5
8 Times	3	2.3
9 Times	0	0.0
10 Times	2	1.5
Total	133	100.0

The second dependent variable was level of drug use. Level of drug use was conceptually defined as if a student uses any kind of illegal drugs and/or tobacco, either socially or habitually. Operationally, level of drug use was defined as "Which of the following do you currently use?" with the answers being tobacco (includes cigarettes, cigars, pipe, and smokeless tobacco), marijuana, cocaine, heroin, inhalants, LSD (acid), mushrooms, MDMA (ecstasy), methamphetamine, PCP, GHB, or none of the above. The participants were told to check all that apply. The number of drugs each respondent checked was added to obtain the total number of drugs they were currently using and it is displayed in Table 2.

Table 2

Student's Level of Drug Use

Number of Drugs	Frequency	Percent
None	55	61.1
One	28	31.1
Two	3	3.3
Three	4	4.4
Total	90	100.0

Independent Variables

The first independent variable was attachment. The attachment component of the bond includes attachment to parents, school, and peers. Attachment was conceptualized as the level of affection and respect towards significant others (parents, teachers, and peers). Level of attachment to parents was operationalized using three items. The first item was "Would you like to be the kind of person your parents are?" with the options 0 = Not at all, 1 = In just a few ways, 2 = In some ways, 3 = In most ways, and 4 = In every way and is presented in Table 3. This question was from Hirschi's original study except, for the purposes of this study, both parents were included in this question while Hirschi asked about the mother and father separately.

Table 3

Student's Desire to Emulate Parents

Would you like to be the kind of person your parents are?	Frequency	Percent
Not at all	14	7.3
In just a few ways	12	6.2
In some ways	74	38.3
In most ways	74	38.3
In every way	19	9.8
Total	193	100.0

The second item for attachment to parents was "How often do you share your thoughts/feelings/plans with your parents?" with the options 0 = never, 1 = Sometimes, and 2 = Often and it is displayed in Table 4. This question is the combination of three questions from Hirschi's original study.

Table 4

Student's Tendency to Share with Parents

How often do you share your thoughts/feelings/plans with your parents?	Frequency	Percent
Never	22	11.4
Sometimes	98	50.8
Often	73	37.8
Total	193	100.0

The third item for attachment to parents was "How close do you feel to your parents?" with the options 0 = Not at all, 1 = Very little, 2 = Somewhat, 3 = Quite a bit, 4 = Very much and it is presented in Table 5.

Table 5

Student's Level of Closeness to Parents

How close do you feel to your parents?	Frequency	Percent
Not at all	4	2.1
Very little	13	6.7
Somewhat	29	15.0
Quite a bit	81	42.0
Very much	66	34.2
Total	193	100.0

Attachment to teachers or school was operationalized using three items. Table 6 shows the first item, which was "What kind of work do most of your teachers seem to expect from you?" with the answer options 0 = They don't seem to care, 1 = Poor work, 2 = Fair work, 3 = Good work, 4 = Excellent work. This question is from Hirschi's original study.

Table 6

Teacher's Expectation of Work Quality

What kind of work do most of your teachers seem to expect from you?	Frequency	Percent
They don't seem to care	2	1.0
Fair work	12	6.3
Good work	112	58.3
Excellent work	66	34.4
Total	192	100.0

The second item was “I feel like I am part of this school” with the options 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly Agree and it is displayed in Table 7.

Table 7

Student’s Feeling of Inclusion at their School

I feel like I am part of this school.	Frequency	Percent
Strongly Disagree	3	1.6
Disagree	18	9.5
Neither Agree nor Disagree	56	29.6
Agree	90	47.6
Strongly Agree	22	11.6
Total	189	100.0

Table 8 presents the last item, which was “I am happy at this school” with the answer options 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly Agree.

Table 8

Student’s Happiness at their School

I feel like I am part of this school.	Frequency	Percent
Strongly Disagree	4	2.1
Disagree	12	6.3
Neither Agree nor Disagree	47	24.9
Agree	93	49.2
Strongly Agree	33	17.5
Total	189	100.0

Finally, attachment to peers was operationalized using two items. The first question was "Would you like to be the kind of person your best friends are?" with the options 0 = I have no best friends, 1 = Not at all, 2 = In a few ways, 3 = In most ways and is displayed in Table 9. This question is from Hirschi's original study.

Table 9

Student's Desire to Emulate Best Friends

Would you like to be the kind of person your best friends are?	Frequency	Percent
I have no best friends	4	2.1
Not at all	16	8.3
In a few ways	121	62.7
In most ways	52	26.9
Total	193	100.0

Table 10 presents the second question for attachment to peers, which was "Do you respect your best friend's opinions about the important things in life?" with the options 0 = I have no best friends, 1 = Not at all, 2 = A little, 3 = Pretty much, and 4 = Completely. This question was also from Hirschi's original questionnaire.

Table 10

Student's Level of Respect for Best Friend's Opinions

Do you respect your best friend's opinions about the important things in life?	Frequency	Percent
I have no best friends	3	1.6
Not at all	1	0.5
A little	27	14.1
Pretty much	95	49.7
Completely	65	34.0
Total	191	100.0

The second independent variable was commitment. Commitment was conceptualized as engaging in conventional lines of action. Commitment was operationalized using four items. The first item was "What is your current overall GPA?" and the answer was self-reported. The responses are presented in Table 11.

Table 11

Student's GPA

What is your current overall GPA?	Frequency	Percent
2.0 – 2.49	19	11.0
2.5 – 2.99	46	26.7
3.0 – 3.49	65	37.8
3.5 – 4.0	42	24.4
Total	172	100.0

Table 12 displays the second question of the commitment element of the bond, which was "Do you have a job?" with the options being 0 = No and 1 = Yes.

Table 12

Student's Employment

Do you have a job?	Frequency	Percent
No	69	35.8
Yes	124	64.2
Total	193	100.0

The third item for commitment was "How often do you attend religious services and/or activities?" The answer options were 0 = Never, 1 = 1-2 times in the past year, 2 = once a month, 3 = 2-3 times a month, and 4 = 1 or more times a week and it is presented in Table 13.

Table 13

Student's Frequency of Church Participation

How often do you attend religious services and/or activities?	Frequency	Percent
Never	58	30.2
1-2 times in the past year	71	37.0
Once per month	24	12.5
2-3 times per month	19	9.9
1 or more times per week	20	10.4
Total	192	100.0

Table 14 displays the last question for commitment, which was "Whatever I do, I try hard." with the answer options being 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly Agree. This question was from Hirschi's original questionnaire.

Table 14

Student's Work Ethic

Whatever I do, I try hard.	Frequency	Percent
Strongly Disagree	1	0.5
Disagree	0	0.0
Neither Agree nor Disagree	18	9.5
Agree	102	54.0
Strongly Agree	68	36.0
Total	189	100.0

The third independent variable was level of college involvement. This was conceptually defined as any involvement in campus activities including sports, clubs, organizations, fraternities or sororities, or working on campus. Involvement was operationalized with one item, "Are you involved on campus?" with the answer options 0 = No and 1 = Yes and the responses are displayed in Table 15. If the respondents answered no to this question, they were asked to skip to the next applicable question. If the respondents answered yes, they were asked to choose which specific activities they were involved in and these responses are presented in Table 16.

Table 15

Student's Involvement

Are you involved on campus?	Frequency	Percent
No	130	67.4
Yes	63	32.6
Total	193	100.0

Table 16

Student Activities

What activities are you involved in?	Frequency	Percent
Clubs/Organizations	29	46.0
Sports	8	12.7
Fraternity or Sorority	12	19.0
Work on campus	2	3.2
2 or more activities	12	19.0
Total	63	100.0

The fourth independent variable, and element of the bond, was belief. Belief was conceptualized as values related to law, the legal system, and the norms of society. Belief was operationalized using four items. The first item was "How important is getting good grades to you personally?" The answer options were 0 = Completely unimportant, 1 = Somewhat important, 2 = Fairly important, and 3 = Very important and is displayed in Table 17. This question was from Hirschi's original study.

Table 17

Student's Perception of the Importance of Good Grades

How important is getting good grades to you personally?	Frequency	Percent
Completely unimportant	13	6.7
Somewhat important	20	10.4
Fairly important	29	15.0
Very important	131	67.9
Total	193	100.0

The second item was "How important is it to conform to society's laws, norms, and values?" with the answer options being 0 = Not important at all, 1 = Fairly unimportant, 2 = Fairly important, and 3 = Very important and is displayed in Table 18.

Table 18

Student's Perception of the Importance of Conformity

How important is it to conform to society's laws, norms, and values?	Frequency	Percent
Not important at all	14	7.3
Fairly unimportant	27	14.1
Fairly important	122	63.5
Very important	29	15.1
Total	192	100.0

Table 19 presents the second item for belief which was "I have a lot of respect for the police." with the answer options being 1 = Strongly Disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly Agree. This question is from Hirschi's original questionnaire except, for the purposes of this study, respondents were asked about police in general while Hirschi specifically asked about the Richmond police.

Table 19

Student's Respect for Police

I have a lot of respect for the police.	Frequency	Percent
Strongly Disagree	6	3.1
Disagree	14	7.3
Neither Agree nor Disagree	42	21.9
Agree	93	48.4
Strongly Agree	37	19.3
Total	192	100.0

Table 20 displays the last item for belief which was "It is alright to get around the law if you can get away with it." with the answer options being 1 = Strongly Disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly Agree. This question is also from Hirschi's original study.

Table 20

Student's Belief About Getting Around the Law

It is alright to get around the law if you can get away with it.	Frequency	Percent
Strongly Disagree	30	15.7
Disagree	76	39.8
Neither Agree nor Disagree	61	31.9
Agree	22	11.5
Strongly Agree	2	1.0
Total	191	100.0

Control Variables

The control variables in each hypothesis were sex, age, and race. Sex is a nominal variable coded as ratio: 1 = Male and 0 = Female. Age is a continuous variable

measured in years. Race was a nominal variable transformed into four dummy variables: white (1, 0), Latino/a (1, 0), Asian (1, 0), and Other (1, 0). Other is the omitted category.

Demographic Characteristics

The following demographic characteristics describe the student respondents. Table 21 represents the sex of the respondents. Of the 193 student respondents, 67 (34.7%) were male and 126 (65.3%) were female.

Table 21

Student's Sex

Sex	Frequency	Percent
Male	67	34.7
Female	126	65.3
Total	193	100.0

As Table 22 indicates, students ranged in age from 18 to 70. The mean age was 22.5 and, the median age was 22, and the mode was 19 years of age.

Table 22

Student's Age

Age in Years	Frequency	Percent
18	15	7.8
19	39	20.3
20	19	9.9
21	20	10.4
22	30	15.6
23	26	13.5
24	15	7.8
25	7	3.6
26	3	1.6
27	3	1.6
28	1	0.5
29	1	0.5
31	1	0.5
32	1	0.5
33	3	1.6
34	1	0.5
35	1	0.5
36	1	0.5
38	1	0.5
40	1	0.5
42	1	0.5
58	1	0.5
70	1	0.5
Total	192	100.0

Table 23 indicates the race of the respondents. Of the 181 student respondents that answered the question, 83 (45.9%) were white, 28 (15.5%) were Latino, and 45 (24.9%) were Asian. Because there were only eight African American respondents, they were combined into the other category to total 25 (13.8%) respondents.

Table 23

Student's Race

Race	Frequency	Percent
White	83	45.9
Latino	28	15.5
Asian	45	24.9
Other	25	13.8
Total	181	100.0

Chapter IV

Findings

For testing the hypotheses, regression analyses were conducted for each hypothesis separately. Specifically, separate regressions were conducted for each question used to measure each element of the bond. Many of the questions used in this study were taken from Hirschi's (1969) original study therefore, separate regressions were conducted to examine whether specific aspects of each element of the bond would effect binge drinking and drug use differently.

Hypothesis 1A: Students who are attached to parents are less likely to binge drink than students who are not attached to parents, controlling for sex, age, and race.

Separate regressions were conducted for each of the three questions included in the attachment to parents element of the bond with binge drinking. For the first regression analysis, binge drinking was regressed on BELIKEPARENTS and the control variables (sex, age, and race). The overall model was not significant ($F = 1.603$, $p = 0.152$) but, as Table 24 shows, being white was significant ($B = 0.340$, $p = 0.020$) and age was almost significant ($B = -0.157$, $p = 0.082$). In other words, white students binge drink more than nonwhite students, controlling for sex, age, and race.

Table 24

Regression Analysis for the Variable: BELIKEPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.489	0.419	0.104	0.246
AGE	-0.052	0.030	-0.157	0.082
WHITE	1.506	0.640	0.340	0.020 *
LATINO/A	1.264	0.801	0.196	0.117
ASIAN	1.205	0.736	0.221	0.104
BELIKEPARENTS	0.076	0.195	0.036	0.696
CONSTANT	1.274			
R^2	0.075			

* $p < 0.05$

Note. For sex, male = 1 and female = 0; For BELIKEPARENTS, "Would you like to be the kind of person your parents are?" in every way = 4, in most ways = 3, in some ways = 2, in just a few ways = 1, and not at all = 0.

Table 25 displays the second regression analysis, in which binge drinking was regressed on SHAREWITHPARENTS and the control variables. The overall model was not significant (F = 1.710, p = 0.124) but being white was significant (B = 0.332, p = 0.023). Age and being Asian were almost significant (B = -0.164, p = 0.067 and B = 0.249, p = 0.077 respectively). Results show that white students binge drink more than other students controlling for sex, age, and race.

Table 25

Regression Analysis for the Variable: SHAREWITHPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.535	0.420	0.114	0.205
AGE	-0.054	0.029	-0.164	0.067
WHITE	1.470	0.640	0.332	0.023 *
LATINO/A	1.221	0.788	0.189	0.124
ASIAN	1.357	0.760	0.249	0.077
SHAREWITHPARENTS	0.294	0.339	0.087	0.388
CONSTANT	1.110			
R^2	0.079			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For SHAREWITHPARENTS, "How often do you share your thoughts/feelings/plans with your parents?" often = 2, sometimes = 1, and never = 0.

In the third regression analysis, binge drinking was regressed on CLOSEPARENTS and the control variables. The overall model was not significant ($F = 1.575$, $p = 0.160$). Table 26 illustrates that being white was significant ($B = 0.339$, $p = 0.021$) and age was almost significant ($B = -0.159$, $p = 0.079$). Hypothesis 1A was not supported. It appears that none of the attachment to parents variables were good predictors of binge drinking.

Table 26

Regression Analysis for the Variable: CLOSEPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (P)
SEX	0.496	0.419	0.105	0.239
AGE	-0.053	0.030	-0.159	0.079
WHITE	1.501	0.643	0.339	0.021 *
LATINO/A	1.210	0.795	0.187	0.131
ASIAN	1.166	0.750	0.214	0.123
CLOSEPARENTS	0.011	0.239	0.004	0.965
CONSTANT	1.454			
R^2	0.074			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For CLOSEPARENTS, "How close do you feel to your parents?" very much = 4, quite a bit = 3, somewhat = 2, very little = 1, and not at all = 0.

Hypothesis 1B: Students who are attached to teachers and school, are less likely to binge drink than students who are not attached to teachers and school, controlling for sex, age, and race.

For the attachment to school or teachers element of the bond, separate regressions were conducted for each of the three questions. For the first regression, binge drinking was regressed on TEACHERSEXPECT and the control variables. The overall model was not significant ($F = 1.731$, $p = 0.120$). Exactly like attachment to parents, Table 27 shows that being white was significant ($B = 0.329$, $p = 0.025$) and age was almost significant ($B = -0.153$, $p = 0.088$). In other words, white students are more likely to binge drink than other students, controlling for sex, age, and race.

Table 27

Regression Analysis for the Variable: TEACHERSEXPECT

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (P)
SEX	0.459	0.419	0.098	0.275
AGE	-0.051	0.029	-0.153	0.088
WHITE	1.457	0.640	0.329	0.025 *
LATINO/A	1.171	0.789	0.181	0.140
ASIAN	1.022	0.739	0.188	0.169
TEACHERSEXPECT	-0.259	0.278	-0.084	0.354
CONSTANT	2.341			
R^2	0.080			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For TEACHERSEXPECT, "What kind of work do most of your teachers seem to expect from you?" excellent work = 4, good work = 3, fair work = 2, poor work = 1, and they don't seem to care = 0.

Table 28 displays the results of the second regression analysis for attachment to school or teachers. The overall model was not significant ($F = 1.645$, $p = 0.141$). Being white was significant ($B = 0.335$, $p = 0.022$) and age was almost significant ($B = -0.178$, $p = 0.056$). Thus, white students binge drink more than other students controlling for sex, age, and race.

Table 28

Regression Analysis for the Variable: PARTOFSCHOOL

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (P)
SEX	0.471	0.419	0.100	0.264
AGE	-0.059	0.030	-0.178	0.056
WHITE	1.486	0.642	0.335	0.022 *
LATINO/A	1.293	0.804	0.196	0.110
ASIAN	1.139	0.728	0.209	0.120
PARTOFSCHOOL	-0.127	0.229	-0.051	0.581
CONSTANT	2.110			
R^2	0.077			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For PARTOFSCHOOL, "I feel like I am part of this school." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

The third regression analysis for attachment to school is shown in Table 29. The overall model was almost significant ($F = 2.100$, $p = 0.058$). Being white was significant ($B = 0.333$, $p = 0.021$) and age, being Latino/a, being Asian, and feeling happy at this school were almost significant ($B = -0.155$, $p = 0.082$; $B = 0.204$, $p = 0.093$; $B = 0.230$, $p = 0.085$; and $B = 0.153$, $p = 0.095$, respectively). In other words, white students binge drink more than other students controlling for sex, age, and race. Hypothesis 1B was not supported. Thus, attachment to teachers and school does not appear to have an affect on binge drinking.

Table 29

Regression Analysis for the Variable: HAPPYSCHOOL

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.639	0.425	0.136	0.135
AGE	-0.051	0.029	-0.155	0.082
WHITE	1.479	0.634	0.333	0.021 *
LATINO/A	1.346	0.794	0.204	0.093
ASIAN	1.254	0.721	0.230	0.085
HAPPYSCHOOL	0.385	0.229	0.153	0.095
CONSTANT	-0.023			
R^2	0.096			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For HAPPYSCHOOL, "I am happy at this school." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Hypothesis 1C: Students who are attached to peers, are less likely to binge drink than students who are not attached to peers, controlling for sex, age, and race.

For the attachment to peers element of the bond, two separate regressions were conducted. Table 30 shows the first regression analysis in which binge drinking was regressed on BELIKEFRIENDS and the control variables. The overall model was not significant (F = 1.591, p = 0.156). Being white was significant (B = 0.336, p = 0.022) and age was almost significant (B = -0.161, p = 0.073). In other words, white students binge drink more than other students controlling for sex, age, and race.

Table 30

Regression Analysis for the Variable: BELIKEFRIENDS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.526	0.430	0.112	0.224
AGE	-0.053	0.029	-0.161	0.073
WHITE	1.490	0.642	0.336	0.022 *
LATINO/A	1.262	0.807	0.195	0.121
ASIAN	1.154	0.727	0.212	0.115
BELIKEFRIENDS	0.101	0.341	0.028	0.768
CONSTANT	1.273			
R^2	0.074			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For BELIKEFRIENDS, "Would you like to be the kind of person your best friends are?" in most ways = 3, in a few ways = 2, not at all = 1, and I have no best friends = 0.

Table 31 shows the second regression analysis for attachment to peers. The overall model was significant (F = 2.718, p = 0.016). Being white and respecting the opinions of their best friends were significant (B = 0.332, p = 0.020 and B = 0.223, p = 0.013, respectively). Age, and being Latino/a were almost significant (B = -0.167, p = 0.057 and B = 0.217, p = 0.072, respectively). In other words, white students and those who respect the opinions of their best friends are more likely to binge drink. The finding that students who respect their best friend's opinions are more likely to binge drink is the opposite of what Hirschi predicted; therefore, Hypothesis 1C was not totally supported.

Table 31

Regression Analysis for the Variable: RESPECTOPINIONS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.690	0.415	0.147	0.099
AGE	-0.055	0.029	-0.167	0.057
WHITE	1.473	0.625	0.332	0.020 *
LATINO/A	1.403	0.774	0.217	0.072
ASIAN	1.086	0.709	0.199	0.128
RESPECTOPINIONS	0.627	0.249	0.223	0.013 *
CONSTANT	-0.497			
R^2	0.121			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For RESPECTOPINIONS, "Do you respect your best friend's opinions about the important things in life?" completely = 4, pretty much = 3, a little = 2, not at all = 1, and I have no best friends = 0.

Hypothesis 2: Students who are committed to conventional lines of actions are less likely to binge drink than students who are not committed to conventional lines of action, controlling for sex, age, and race.

For the commitment element of the bond, regressions were conducted for each of the four questions. Table 32 displays the first regression analysis in which binge drinking was regressed on GPA and the control variables. The overall model was not significant ($F = 1.378$, $p = 0.230$). Being white was significant ($B = 0.312$, $p = 0.042$) and age was almost significant ($B = -0.161$, $p = 0.095$). Thus, white students binge drink more than other students controlling for sex, age, and race.

Table 32

Regression Analysis for the Variable: GPA

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.538	0.458	0.113	0.243
AGE	-0.054	0.032	-0.161	0.095
WHITE	1.412	0.687	0.312	0.042 *
LATINO/A	1.212	0.853	0.180	0.158
ASIAN	1.138	0.772	0.204	0.144
GPA	0.025	0.475	0.005	0.958
CONSTANT	1.507			
R^2	0.070			

* $p < 0.05$
Note: For sex, male = 1 and female = 0.

Table 33 displays the second regression analysis in which binge drinking was regressed on JOB and the control variables. The overall model was not significant (F = 1.579, p = 0.159). Being white was significant (B = 0.340, p = 0.021) and age was almost significant (B = -0.161, p = 0.074). Thus, white students binge drink more than other students controlling for sex, age, and race.

Table 33

Regression Analysis for the Variable: JOB

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.501	0.420	0.106	0.235
AGE	-0.053	0.029	-0.161	0.074
WHITE	1.504	0.641	0.340	0.021 *
LATINO/A	1.215	0.791	0.188	0.127
ASIAN	1.167	0.729	0.214	0.112
JOB	0.063	0.423	0.013	0.881
CONSTANT	1.448			
R^2	0.074			

* $p < 0.05$
Note: For sex, male = 1 and female = 0; For JOB, “Do you have a job?” yes = 1 and no = 0.

For the third regression analysis, shown in Table 34, binge drinking was regressed on RELIGION and the control variables. The overall model was not significant (F = 1.609, p = 0.150). Being white was significant (B = 0.361, p = 0.020) and age was almost significant (B = -0.160, p = 0.075). In other words, white students binge drink more than other students controlling for sex, age, and race.

Table 34

Regression Analysis for the Variable: RELIGION

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.500	0.418	0.106	0.234
AGE	-0.053	0.029	-0.160	0.075
WHITE	1.597	0.675	0.361	0.020 *
LATINO/A	1.237	0.792	0.192	0.121
ASIAN	1.229	0.744	0.225	0.101
RELIGION	0.077	0.176	0.041	0.663
CONSTANT	1.329			
R^2	0.075			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For RELIGION, "How often do you attend religious services and/or activities?" 1 or more times a week = 4, 2-3 times a month = 3, once a month = 2, 1-2 times in the past year = 1, and never = 0.

Table 35 displays the last regression for the commitment element of the bond. Binge drinking was regressed on TRYHARD and the control variables. The overall model was not significant (F = 1.609, p = 0.151). Being white was significant (B = 0.339, p = 0.021) and age was almost significant (B = -0.167, p = 0.064). Results show that white students binge drink more than other students controlling for sex, age, and race. Furthermore, attending religious services and/or activities was not a contributing factor for binge drinking; Thus, Hypothesis 2 was not supported.

Table 35

Regression Analysis for the Variable: TRYHARD

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (P)
SEX	0.487	0.419	0.104	0.248
AGE	-0.055	0.030	-0.167	0.064
WHITE	1.505	0.641	0.339	0.021 *
LATINO/A	1.324	0.803	0.200	0.102
ASIAN	1.197	0.735	0.220	0.106
TRYHARD	0.106	0.324	0.030	0.743
CONSTANT	1.084			
R^2	0.076			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For TRYHARD, "Whatever I do, I try hard." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Hypothesis 3: Students who are involved on campus are less likely to binge drink than students who are not involved on campus, controlling for sex, age, and race.

One regression analysis was performed for the variable involvement and binge drinking, along with the control variables. The regression analysis is presented in Table 36. The overall model was not significant ($F = 1.635$, $p = 0.143$). Similar to previous findings, being white was significant ($B = 0.333$, $p = 0.023$). The remaining variables were not significant. Hypothesis 3 was not supported.

Table 36

Regression Analysis for the Variable: INVOLVED

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.486	0.418	0.103	0.247
AGE	-0.049	0.030	-0.148	0.107
WHITE	1.474	0.642	0.333	0.023 *
LATINO/A	1.220	0.790	0.189	0.125
ASIAN	1.135	0.727	0.208	0.121
INVOLVED	0.243	0.421	0.053	0.565
CONSTANT	1.338			
R^2	0.076			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For INVOLVED, "Are you involved on campus?" yes = 1 an no = 0.

Hypothesis 4: Students who have accepted the normative system are less likely to binge drink than students who have not accepted the normative system, controlling for sex, age, and race.

Separate regressions were conducted for each of the four questions included in the belief bond. Presented in Table 37 is the first regression analysis, in which binge drinking was regressed on GOODGRADES and the control variables. The overall model was not significant (F = 1.635, p = 0.143). Being white was significant (B = 0.340, p = 0.020) and age was almost significant (B = -0.160, p = 0.075). In other words, white students binge drink more than other students controlling for sex, age, and race.

Table 37

Regression Analysis for the Variable: GOODGRADES

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.495	0.418	0.105	0.238
AGE	-0.053	0.029	-0.160	0.075
WHITE	1.506	0.640	0.340	0.020 *
LATINO/A	1.180	0.792	0.183	0.139
ASIAN	1.148	0.726	0.211	0.116
GOODGRADES	-0.126	0.218	-0.051	0.565
CONSTANT	1.804			
R^2	0.076			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For GOODGRADES, "How important is getting good grades to you personally?" very important = 3, fairly important = 2, somewhat important = 1, and completely unimportant = 0.

Table 38 shows the second regression analysis in which binge drinking was regressed on CONFORM and the control variables. The overall model was almost significant ($F = 1.873$, $p = 0.091$). Being white was significant ($B = 0.302$, $p = 0.042$) and age was almost significant ($B = -0.165$, $p = 0.064$). Thus, white students binge drink more than other students controlling for sex, age, and race.

Table 38

Regression Analysis for the Variable: CONFORM

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.420	0.420	0.089	0.319
AGE	-0.055	0.029	-0.165	0.064
WHITE	1.337	0.649	0.302	0.042 *
LATINO/A	1.133	0.788	0.176	0.153
ASIAN	1.075	0.725	0.197	0.141
CONFORM	-0.340	0.264	-0.117	0.200
CONSTANT	2.310			
R^2	0.086			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For CONFORM, "How important is it to conform to society's norms and values?" very important = 3, fairly important = 2, fairly unimportant = 1, not important at all = 0.

For the third regression, presented in Table 39, binge drinking was regressed on RESPECTPOLICE and the control variables. The overall model was almost significant ($F = 1.935$, $p = 0.081$). Being white and age were significant ($B = 0.334$, $p = 0.021$ and $B = -0.179$, $p = 0.047$, respectively). In other words, white students and younger students binge drink more than other racial groups and older students controlling for sex, age, and race. All other variables failed to reach significance in the regression.

Table 39

Regression Analysis for the Variable: RESPECTPOLICE

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.443	0.417	0.094	0.290
AGE	-0.059	0.030	-0.179	0.047 *
WHITE	1.481	0.636	0.334	0.021 *
LATINO/A	1.168	0.785	0.181	0.139
ASIAN	1.039	0.726	0.191	0.155
RESPECTPOLICE	-0.306	0.216	-0.128	0.160
CONSTANT	2.830			
R^2	0.089			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For RESPECTPOLICE, "I have a lot of respect for the police." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Table 40 displays the last regression for the belief bond in which binge drinking was regressed on AROUNDTHELAW and the control variables. The overall model was almost significant (F = 2.089, p = 0.059). Being white was significant (B = 0.333, p = 0.022). In other words, white students binge drink more than other students controlling for sex, age, and race. Age and AROUNDTHELAW were almost significant (B = -0.151, p = 0.090 and B = 0.154, p = 0.094, respectively). Overall, Hypothesis 4 was not supported.

Table 40

Regression Analysis for the Variable: AROUNDTHELAW

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.403	0.417	0.086	0.336
AGE	-0.050	0.029	-0.151	0.090
WHITE	1.476	0.634	0.333	0.022 *
LATINO/A	1.285	0.783	0.199	0.103
ASIAN	0.946	0.729	0.174	0.197
AROUNDTHELAW	0.362	0.214	0.154	0.094
CONSTANT	0.602			
R^2	0.095			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For AROUNDTHELAW, "It is alright to get around the law if you can get away with it." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Hypothesis 5A: Students who are attached to parents are less likely to use drugs than students who are not attached to parents, controlling for sex, age, and race.

Separate regressions were also conducted for drug use using the same questions included in the binge drinking regressions. Table 41 shows the first regression for the attachment to parents bond in which drug use was regressed on BELIKEPARENTS and the control variables. The overall model was not significant ($F = 0.546$, $p = 0.772$) and none of the variables reached significance in the regression.

Table 41

Second Regression Analysis for the Variable: BELIKEPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.194	0.176	0.126	0.276
AGE	-0.011	0.015	-0.084	0.454
WHITE	-0.292	0.370	-0.187	0.433
LATINO/A	-0.173	0.409	-0.086	0.674
ASIAN	-0.169	0.419	-0.080	0.687
BELIKEPARENTS	0.058	0.094	0.070	0.539
CONSTANT	0.766			
R^2	0.040			

Note: For sex, male = 1 and female = 0; For BELIKEPARENTS, "Would you like to be the kind of person your parents are?" in every way = 4, in most ways = 3, in some ways = 2, in just a few ways = 1, and not at all = 0.

The second regression for attachment to parents is presented in Table 42. Drug use was regressed on SHAREWITHPARENTS and the control variables. The overall model was not significant (F = 0.531, p = 0.783) and none of the variables reached significance in the regression.

Table 42

Second Regression Analysis for the Variable SHAREWITHPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.182	0.180	0.118	0.315
AGE	-0.010	0.015	-0.078	0.494
WHITE	-0.249	0.377	-0.159	0.511
LATINO/A	-0.170	0.410	-0.085	0.680
ASIAN	-0.174	0.420	-0.082	0.680
SHAREWITHPARENTS	-0.076	0.139	-0.067	0.588
CONSTANT	0.957			
R^2	0.039			

Note: For sex, male = 1 and female = 0; For SHAREWITHPARENTS, "How often do you share you thoughts/feelings/plans with your parents?" often = 2, sometimes = 1, and never = 0.

Table 43 displays the third regression analysis for the attachment to parents bond. Drug use was regressed on CLOSEPARENTS and the control variables. The overall model was not significant (F = 0.499, p = 0.807). Also, none of the variables in the regression reached significance. None of the attachment to parents variables was a strong predictor of drug use; Thus, Hypothesis 5A was not supported.

Table 43

Second Regression Analysis for the Variable: CLOSEPARENTS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.208	0.177	0.135	0.243
AGE	-0.012	0.015	-0.091	0.419
WHITE	-0.307	0.376	-0.197	0.417
LATINO/A	-0.207	0.411	-0.104	0.615
ASIAN	-0.161	0.419	-0.076	0.702
CLOSEPARENTS	0.031	0.094	0.038	0.742
CONSTANT	0.840			
R^2	0.037			

Note: For sex, male = 1 and female = 0; For CLOSEPARENTS, "How close do you feel to your parents?" very much = 4, quite a bit = 3, somewhat = 2, very little = 1, and not at all = 0.

Hypothesis 5B: Students who are attached to teachers and school are less likely to use drugs than students who are not attached to teacher and school, controlling for sex, age, and race.

Separate regressions were performed for each of the three questions of the attachment to school and teachers bond. Table 44 shows the first regression analysis in which drug use was regressed on TEACHERSEXPECT and the control variables. The overall model was not significant (F = 0.962, p = 0.457). All the variables in the

regression failed to reach significance, although TEACHERSEXPECT was almost significant (B = -0.189, p = 0.099).

Table 44

Second Regression Analysis for the Variable: TEACHERSEXPECT

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.160	0.175	0.104	0.364
AGE	-0.008	0.015	-0.063	0.573
WHITE	-0.215	0.367	-0.138	0.560
LATINO/A	-0.138	0.403	-0.069	0.733
ASIAN	-0.141	0.413	-0.067	0.734
TEACHERSEXPECT	-0.209	0.125	-0.189	0.099
CONSTANT	1.451			
R^2	0.069			

Note: For sex, male = 1 and female = 0; For TEACHERSEXPECT, "What kind of work do most of your teachers seem to expect from you?" excellent work = 4, good work = 3, fair work = 2, poor work = 1, and they don't seem to care = 0.

Table 45 displays the second regression analysis for the attachment to school and teachers element of the bond in which drug use was regressed on PARTOFSCHOOL and the control variables. The overall model was not significant (F = 0.423, p = 0.861). All of the variables in the regression failed to reach significance.

Table 45

Second Regression Analysis for the Variable: PARTOFSCHOOL

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.193	0.179	0.125	0.282
AGE	-0.013	0.015	-0.095	0.412
WHITE	-0.263	0.413	-0.166	0.527
LATINO/A	-0.168	0.449	-0.084	0.709
ASIAN	-0.096	0.461	-0.044	0.836
PARTOFSCHOOL	0.006	0.091	0.008	0.944
CONSTANT	0.887			
R^2	0.032			

Note: For sex, male = 1 and female = 0; For PARTOFSCHOOL, "I feel like I am part of this school." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Table 46 is the third regression analysis for attachment to school and teachers. Drug use was regressed on HAPPYSCHOOL and the control variables. The overall model was not significant ($F = 0.524$, $p = 0.789$) and all of the variables failed to reach significance in the regression. Hypothesis 5B was not supported.

Table 46

Second Regression Analysis for the Variable: HAPPYSCHOOL

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.211	0.179	0.136	0.244
AGE	-0.013	0.015	-0.098	0.391
WHITE	-0.316	0.417	-0.199	0.451
LATINO/A	-0.221	0.451	-0.111	0.626
ASIAN	-0.133	0.462	-0.061	0.775
HAPPYSCHOOL	0.077	0.101	0.089	0.445
CONSTANT	0.676			
R^2	0.040			

Note: For sex, male = 1 and female = 0; For HAPPYSCHOOL, "I am happy at this school." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Hypothesis 5C: Students who are attached to peers are less likely to use drugs than students who are not attached to peers, controlling for sex, age, and race.

Table 47 shows the first of two regression analyses for the attachment to peers bond. Drug use was regressed on BELIKEFRIENDS and the control variables. The overall model was not significant (F = 1.340, p = 0.249) but BELIKEFRIENDS was significant (B = 0.289, p = 0.029). In other words, students who want to be like their friends are more likely to use drugs. All other variables were not significant.

Table 47

Second Regression Analysis for the Variable: BELIKEFRIENDS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.250	0.172	0.162	0.151
AGE	-0.013	0.014	-0.101	0.355
WHITE	-0.336	0.361	-0.215	0.354
LATINO/A	0.058	0.412	0.029	0.888
ASIAN	-0.260	0.409	-0.123	0.526
BELIKEFRIENDS	0.318	0.142	0.289	0.029 *
CONSTANT	0.277			
R^2	0.093			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For BELIKEFRIENDS, "Would you like to be the kind of person your best friends are?" in most ways = 3, in a few ways = 2, not at all = 1, and I have no best friends = 0.

Table 48 displays the second regression analysis for attachment to peers. Drug use was regressed on RESPECTOPINIONS and the control variables. The overall model was not significant (F = 0.539, p = 0.777). All of the variables in the regression failed to reach significance. The variable wanting to be like friends was found to be an important predictor of drug use but the finding was the opposite of what Hirschi predicted. Therefore, Hypothesis 5C was not totally supported.

Table 48

Second Regression Analysis for the Variable: RESPECTOPINIONS

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.224	0.179	0.146	0.215
AGE	-0.012	0.015	-0.088	0.432
WHITE	-0.315	0.374	-0.202	0.401
LATINO/A	-0.180	0.409	-0.090	0.661
ASIAN	-0.197	0.423	-0.093	0.642
RESPECTOPINIONS	0.059	0.102	0.070	0.562
CONSTANT	0.739			
R^2	0.040			

Note: For sex, male = 1 and female = 0; For RESPECTOPINIONS, "Do you respect your best friend's opinions about the important things in life?" completely = 4, pretty much = 3, a little = 2, not at all = 1, and I have no best friends = 0.

Hypothesis 6: Students who are committed to conventional lines of action are less likely to use drugs than students who are not committed to conventional lines of action, controlling for sex, age, and race.

Separate regression analyses were conducted for the four questions in the commitment element of the bond. For the first regression analysis, shown in Table 49, drug use was regressed on GPA and the control variables. The overall model was not significant ($F = 0.682$, $p = 0.664$). All of the variables failed to reach significance in the regression.

Table 49

Second Regression Analysis for the Variable: GPA

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.126	0.193	0.081	0.514
AGE	-0.010	0.017	-0.067	0.576
WHITE	-0.313	0.380	-0.195	0.413
LATINO/A	-0.179	0.425	-0.086	0.675
ASIAN	-0.186	0.434	-0.086	0.669
GPA	-0.206	0.205	-0.127	0.317
CONSTANT	1.539			
R^2	0.055			

Note: For sex, male = 1 and female = 0.

Table 50 shows the second regression analysis conducted for commitment in which drug use was regressed on JOB and the control variables. The overall model was not significant ($F = 0.549$, $p = 0.769$). All of the variables in the regression failed to reach significance.

Table 50

Second Regression Analysis for the Variable: JOB

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.188	0.177	0.122	0.294
AGE	-0.011	0.015	-0.086	0.446
WHITE	-0.329	0.377	-0.211	0.385
LATINO/A	-0.231	0.412	-0.116	0.577
ASIAN	-0.206	0.425	-0.098	0.629
JOB	-0.121	0.192	-0.072	0.529
CONSTANT	1.036			
R^2	0.041			

Note: For sex, male = 1 and female = 0; For JOB, "Do you have a job?" yes = 1 and no = 0.

Table 51 displays the third regression analysis for the commitment bond. Drug use was regressed on RELIGION and the control variables. The overall model was not

significant (F = 0.859, p = 0.529). All of the variables failed to reach significance in the regression.

Table 51

Second Regression Analysis for the Variable: RELIGION

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.159	0.176	0.103	0.369
AGE	-0.009	0.015	-0.071	0.524
WHITE	-0.540	0.404	-0.346	0.186
LATINO/A	-0.346	0.416	-0.173	0.409
ASIAN	-0.363	0.436	-0.172	0.407
RELIGION	-0.121	0.082	-0.185	0.143
CONSTANT	1.231			
R^2	0.062			

Note: For sex, male = 1 and female = 0; For RELIGION, "How often do you attend religious services and/or activities?" 1 or more times a week = 4, 2-3 times a month = 3, once a month = 2, 1-2 times in the past year = 1, and never = 0.

Table 52 shows the last regression analysis for commitment. Drug use was regressed on TRYHARD and the control variables. The overall model was not significant (F = 0.428, p = 0.858) and all of the variables failed to reach significance in the regression. Overall, Hypothesis 6 was not supported.

Table 52

Second Regression Analysis for the Variable: TRYHARD

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.194	0.179	0.125	0.280
AGE	-0.013	0.015	-0.095	0.406
WHITE	-0.254	0.416	-0.160	0.544
LATINO/A	-0.165	0.449	-0.083	0.715
ASIAN	-0.098	0.461	-0.045	0.832
TRYHARD	-0.025	0.135	-0.022	0.854
CONSTANT	1.011			
R^2	0.033			

Note: For sex, male = 1 and female = 0; For TRYHARD, "Whatever I do, I try hard." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Hypothesis 7: Students who are involved on campus are less likely to use drugs than students who are not involved on campus, controlling for sex, age, and race.

Table 53 shows the regression analysis for involvement and drug use. Drug use was regressed on INVOLVED and the control variables. The overall model was not significant ($F = 0.549$, $p = 0.769$). All of the variables failed to reach significance in the regression. Therefore, Hypothesis 7 was not supported.

Table 53

Second Regression Analysis for the Variable: INVOLVED

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.202	0.176	0.131	0.254
AGE	-0.014	0.015	-0.107	0.354
WHITE	-0.285	0.370	-0.182	0.444
LATINO/A	-0.217	0.410	-0.109	0.598
ASIAN	-0.163	0.419	-0.077	0.697
INVOLVED	-0.114	0.181	-0.073	0.530
CONSTANT	1.013			
R^2	0.041			

Note: For sex, male = 1 and female = 0; For INVOLVED, "Are you involved on campus?" yes = 1 and no = 0.

Hypothesis 8: Students who have accepted the normative system are less likely to use drugs than students who have not accepted the normative system, controlling for sex, age, and race.

Separate regressions were conducted for each of the four questions for the belief element of the bond. Table 54 displays the first regression for belief in which drug use was regressed on GOODGRADES and the control variables. The overall model was not significant ($F = 0.783$, $p = 0.586$) and all of the variables in the regression failed to reach significance.

Table 54

Second Regression Analysis for the Variable: GOODGRADES

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.194	0.174	0.126	0.268
AGE	-0.010	0.015	-0.076	0.498
WHITE	-0.283	0.367	-0.181	0.443
LATINO/A	-0.195	0.404	-0.098	0.631
ASIAN	-0.177	0.415	-0.084	0.671
GOODGRADES	-0.124	0.094	-0.147	0.189
CONSTANT	1.176			
R^2	0.057			

Note: For sex, male = 1 and female = 0; For GOODGRADES, "How important is getting good grades to you personally?" very important = 3, fairly important = 2, somewhat important = 1, and completely unimportant = 0.

For the second regression analysis for belief, shown in Table 55, drug use was regressed on CONFORM and the control variables. The overall model was not significant (F = 1.076, p = 0.384) and all of the variables failed to reach significance in the regression. However, CONFORM was almost significant (B = -0.208, p = 0.067).

Table 55

Second Regression Analysis for the Variable: CONFORM

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.194	0.172	0.126	0.264
AGE	-0.010	0.015	-0.075	0.498
WHITE	-0.397	0.368	-0.254	0.285
LATINO/A	-0.236	0.401	-0.118	0.558
ASIAN	-0.207	0.411	-0.098	0.617
CONFORM	-0.205	0.110	-0.208	0.067
CONSTANT	1.326			
R^2	0.076			

Note: For sex, male = 1 and female = 0; For CONFORM, "How important is it to conform to society's norms and values?" very important = 3, fairly important = 2, fairly unimportant = 1, and not important at all = 0.

Table 56 displays the third regression for belief. Drug use was regressed on RESPECTPOLICE and the control variables. The overall model was not significant (F = 1.661, p = 0.142). Having respect for the police was significant (B = -0.288, p = 0.011), while all other variables failed to reach significance. In other words, students who respect the police are less likely to use drugs than students who do not respect the police.

Table 56

Second Regression Analysis for the Variable: RESPECTPOLICE

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.233	0.169	0.151	0.172
AGE	-0.010	0.014	-0.075	0.488
WHITE	-0.064	0.366	-0.041	0.861
LATINO/A	0.008	0.400	0.004	0.984
ASIAN	-0.003	0.407	-0.002	0.993
RESPECTPOLICE	-0.216	0.083	-0.288	0.011 *
CONSTANT	1.450			
R^2	0.113			

* $p < 0.05$

Note: For sex, male = 1 and female = 0; For RESPECTPOLICE, "I have a lot of respect for the police." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Table 57 displays the last regression for belief. Drug use was regressed on AROUNDTHELAW and the control variables. The overall model was not significant (F = 2.060, p = 0.068). AROUNDTHELAW was significant (B = 0.332, p = 0.004), while all other variables failed to reach significance. In other words, students who believe that breaking the law is acceptable if they can get away with it are more likely to use drugs than students who believe it is never acceptable to break the law. The variables AROUNDTHELAW and RESPECTPOLICE were found to be important predictors of drug use. Thus, Hypothesis 8 was somewhat supported.

Table 57

Second Regression Analysis for the Variable: AROUNDTHELAW

Independent Variables	Unstandardized Coefficients (b)	Standard Error (SEB)	Standardized Coefficients (B)	Probability of Error (p)
SEX	0.140	0.169	0.091	0.407
AGE	-0.008	0.014	-0.064	0.555
WHITE	-0.425	0.355	-0.270	0.235
LATINO/A	-0.374	0.393	-0.188	0.343
ASIAN	-0.412	0.414	-0.189	0.322
AROUNDTHELAW	0.265	0.088	0.332	0.004 **
CONSTANT	0.354			
R^2	0.138			

** $p < 0.01$

Note: For sex, male = 1 and female = 0; For AROUNDTHELAW, "It is alright to get around the law if you can get away with it." strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, and strongly disagree = 1.

Factor Analyses

Factor analyses were also conducted to test each element of the bond as a whole in predicting binge drinking and drug use. The regressions (not shown here) showed that none of the combined scales reached significance.

Chapter V

Discussion

Significant Hypotheses

There was partial support for Hirschi's theory. The hypotheses that were partially supported included 1C, 5C, and 8. For Hypothesis 1C, which states students who are attached to their peers are less likely to binge drink, respecting best friends' opinions was the only significant predictor of binge drinking. Surprisingly, the direction was the opposite of Hirschi's prediction ($B = 0.223$, $p < 0.05$). Hirschi predicted that students who want to be the kind of person their friends are and who respect their friends' opinions are less likely to engage in deviant behavior. My finding suggested that the more a student respects his or her best friends' opinions, the more likely that student is to binge drink. This is consistent with past studies showing that closest friend's drinking behavior was significantly related to the student's own drinking behavior (Mallett, et al., 2009). Although my finding is inconsistent with Hirschi's theory, binge drinking is not considered deviant by some people, such as college students. Furthermore, some researchers have found that friends' approval of drinking (Neighbors, et al., 2007), friends' drinking behaviors, and friends' attitudes toward drinking (Wood, Read, Palfai, and Stevenson, 2001) were significant predictors of a student's own alcohol use.

For Hypothesis 5C, wanting to be like friends was the only significant predictor of drug use ($B = 0.289$, $p < 0.05$). As found in Hypothesis 1C, this finding was inconsistent with Hirschi's theory. Hirschi stated that if people are attached to law-abiding

individuals, such as friends, they are less likely to engage in deviant behavior. My finding suggested that the more students want to be like their friends the more likely they are to use drugs. However, in this study, students were not asked about their friends' use of drugs so it is unclear whether the students' friends were law-abiding.

Hypothesis 8 was partially supported with two of the four variables, RESPECTPOLICE and AROUNDTHELAW, reaching significance ($B = -0.288$, $p < 0.05$ and $B = 0.332$, $p < 0.01$ respectively). In other words, students who respect police are less likely to use drugs while students who believe it is alright to get around the law if they can get away with it are more likely to use drugs. These findings are consistent with Hirschi's theory.

Non-Significant Hypotheses

Hypotheses 1A and 1B were not supported. Thus, attachment to parents and attachment to school do not seem to have an effect on binge drinking among college students. Arnett (2005) argues that decreasing social control and increased freedom contribute to increases in alcohol consumption during emerging adulthood. It could be that students are still attached to parents and to school and that the actual influence is the increase in autonomy.

Hypothesis 2 was not supported; therefore, commitment, such as working for pay, attending religious services, GPA, and trying hard at everything they do, did not have an effect on binge drinking among college students. This finding could be partly explained by research that found that hours worked at a job were significantly associated with more frequent alcohol use (Gibb, Fergusson, & Horwood, 2011).

Hypothesis 3 was not supported. Thus, involvement in conventional activities such as activities on campus, did not influence binge drinking among college students. Further analyses were conducted (not shown here) to examine whether involvement in certain activities influenced rates of binge drinking. The only significant finding was involvement in a fraternity or sorority. Students who were involved in a fraternity or sorority were more likely to binge drink ($B = 0.508$, $p < 0.001$) than students who were not members of a fraternity or a sorority. This finding is consistent with Wechsler and colleagues' (1994) results that found fraternity membership is the single best predictor of binge drinking in college. It seems that Greek membership is a subculture that believes binge drinking is not deviant or dangerous. Furthermore, Caudill and colleagues (2006) state, "heavy drinking has become a normative part of fraternity culture" (p. 141).

Hypothesis 4 was not supported. Belief in conventional society did not influence binge drinking among college students. This finding did not support Hirschi's assertion. Perhaps college students do not consider binge drinking deviant; therefore, college students may binge drink while still believing in society's norms and values.

Hypotheses 5A and 5B were not supported. These findings indicate that there was no relationship between attachment to parents, or attachment to school, and drug use by college students. This finding is similar to my finding that attachment to parents and attachment to school do not influence binge drinking. According to Arnett (2005), drug use increases during emerging adulthood because of the decrease in social control, the increase in freedom, and the increase in stress that is inherent to this stage in the life course. It could be that college students in this sample are still attached to parents and to

school and that the actual influence is the increase in freedom and decrease in social control that is characteristic to young adulthood.

Hypothesis 6 was not supported. Therefore, there was no relationship between commitment to conventional activities and drug use among college students. According to Uecker, Regnerus, and Vaaler (2006), religiosity declines during young adulthood. Although this decline is often temporary, perhaps that is why religion was not significant predictor of drug use in this sample of young adults.

Lastly, Hypothesis 7 was also not supported. This finding indicates that involvement in conventional activities did not predict drug use among college students. Further analyses were conducted (not shown here) to examine whether involvement in certain activities affects drug use. None of the findings were significant; therefore, specific activities, such as involvement in sports or clubs, fraternity or sorority membership, and working on campus, did not predict drug use among this sample of college students.

Significant Control Variables

Being white was significant in all of the regression analyses for binge drinking. This finding is not surprising since many studies on college student drinking have reported similar findings (Shinew & Parry, 2005). For example, Siebert, Wilke, Delva, Smith, and Howell (2003) found that 51 percent of white students showed a blood alcohol content (BAC) of 0.08 or higher the last time they reported partying or socializing, whereas only 16 percent of African American students were at or above 0.08. In addition, white students reported consuming, on average, three more drinks during

their last drinking occasion compared to African American students (5.4 and 2.4 respectively). Furthermore, Paschall, Bersamin, and Flewelling (2005) found that college attendance increased the likelihood of binge drinking among white young adults but decreased the likelihood of binge drinking for African American and Asian young adults. In other words, white individuals who attend college are more likely to binge drink, while African American and Asian individuals who attend college are less likely to binge drink.

Age was significant in one of the binge drinking regressions, suggesting that younger students binge drink more than older students. This finding is supported by research that found that younger students binge drink more often than older students (Caudill et al., 2006). For example, Wechsler (1996) described several student characteristics that are associated with binge drinking, one of which was being under 24 years old.

In this study, none of the control variables were significant in the regression analyses for drug use.

Chapter VI

Conclusion

Overall, my research showed very little support for Hirschi's social control theory as applied to this sample of college students. There was partial support for Hirschi's theory in that students who respect police are less likely to use drugs while students who believe it is all right to get around the law if you can get away with it are more likely to use drugs. Contrary to the theory, students who respect his or her best friends' opinions about important things are more likely to binge drink. In addition, the more a student wants to be the kind of person his or her best friends are, the more likely that student is to use drugs. The regression analyses showed that white students binge drink more than other students. Further analyses showed that fraternity and sorority members were more likely to binge drink than other students.

Implications

Hirschi's theory is unable to explain deviant or criminal behavior in young adults and may only be useful for explaining juvenile delinquency. The college years, also known as emerging adulthood, is characterized by a decrease in social control, an increase of autonomy and stress, and an attempt to adopt adult roles. This period is also dominated by peer interaction. Therefore, it is possible that bonds could change over time. For example, because the college years are dominated by peer interaction, peer attachment may increase. In addition, the increase in freedom may result in a decrease in parental attachment. Hirschi's theory does not address these possibilities. Including

questions that measure past bonds and past deviant or criminal behaviors could help shed light on how certain bonds change over time and how that may affect deviant and criminal behaviors.

Some form of intervention, at least for fraternity and sorority members, is needed for alcohol use. Specifically, an intervention using the social norms approach would be beneficial (Vander Ven, 2011). This approach is based on the assumption that college students believe their peers drink much more than they actually do, and as a result, the student drinks more in an attempt to match that level of consumption (Vender Ven, 2011). There is empirical support for this approach (Vender Ven, 2011; Neighbors et al., 2007; Perkins, 2007).

Limitations

There were many limitations in this study. First, the sample size could have been larger. Second, because the R^2 values in the regressions were so small, ranging from 7 percent to 12.1 percent for binge drinking and 3.2 percent to 13.8 percent for drug use, there are other possible variables that were not explored here, but could be more important when examining binge drinking and/or drug use among college students. These include SES, social norms, peers, and the role changes inherent in emerging adulthood. Moreover, the questions about parents should have been asked for each parent separately because an individual's relationship with their mother may be very different than their relationship with their father.

Hirschi's social control theory was found to have limitations in explaining college students' binge drinking or drug use. One study found that the causal processes

identified in Hirschi's social control theory were most applicable to youths in mid-adolescence (Conklin, 2006).

Social learning theory may be better able to explain binge drinking and drug use among college students. Social Learning theory states that individuals learn deviant and criminal behavior through interaction with, and observation of, others who engage in the same behavior. College students could learn the norms and expectations associated with binge drinking and/or drug use from peers who engage in those activities. This could be especially true because respecting best friends' opinions about the important things in life was a significant predictor of binge drinking and wanting to be like their friends was a significant predictor of drug use among this sample of college students.

As for future research, there should be much more research on the misuse of prescription medications. There is a dearth of information on this topic. In addition, there should be more studies that examine the applicability of Hirschi's theory to adults, particularly college students. One critique of social control theory is that it does not identify the significance of different social institutions, such as the family and school, for people of various ages (Conklin, 2007). Researchers should also specifically examine the importance of peers in college life by exploring the role friends play in a student's decision making in terms of drinking or using drugs. They may play an even more crucial role than previously thought.

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Appendix A:

IRB Approval Letter

SAN JOSÉ STATE
UNIVERSITY

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Associate Vice President
Graduate Studies & Research
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To: Katelyn Riley

From: Pamela Stacks, Ph.D.
Associate Vice President
Graduate Studies and Research

Pamela C Stacks

Date: March 15, 2010

The Human Subjects-Institutional Review Board has registered your study entitled:

"Alcohol, Drug Use, and School Involvement among College Students"

This registration, which provides exempt status under Exemption Category 2, of SJSU Policy S08-7, is contingent upon the subjects included in your research project being appropriately protected from risk. This includes the protection of the confidentiality of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Pamela Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond March 15, 2011 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted. If you have any questions, please contact me at (408) 924-2427.

Protocol #S002087

cc.Yoko Baba 0122

Appendix B:

Survey Questionnaire and Consent Form

Appendix B

1. What is your sex? A. Male B. Female

2. How old are you? _____ years old.

3. What is your race/ethnicity? _____.

4. What year of school are you in?

A. freshman B. Sophomore C. Junior D. Senior E. Graduate Student

5. What is your major? _____.

6. What is your current overall GPA? _____.

7. Do you have a job? A. Yes B. No

8. Do you live on campus? A. Yes B. No

9. Are you involved on campus? (sports, clubs, organizations, work on campus, etc.)

A. Yes B. No

If you answered No, proceed to number 11.

10. What are you involved in on campus? (Circle all that apply)

A. Clubs/Organizations B. Sports C. Fraternity or Sorority D. work on campus

E. Other _____.

11. How important is getting good grades to you personally?*

A. Completely unimportant B. Somewhat important C. Fairly important D. Very important

12. What kind of work do most of your teachers seem to expect from you? *

A. Excellent work B. Good work C. Fair work D. Poor work E. They don't seem to care

13. Would you like to be the kind of person your parents are? *

A. In every way B. In most ways C. In some ways D. In just a few ways E. Not at all

14. How often do you share your thoughts/feelings/plans with your parents? *

A. Often B. Sometimes C. Never

15. How close do you feel to your parents?

A. Not at all B. Very Little C. Somewhat D. Quite a bit E. Very much

16. Would you like to be the kind of person your best friends are? *

A. In most ways B. In a few ways C. Not at all D. I have no best friends

17. Do you respect your best friends' opinions about the important things in life? *

A. Completely B. Pretty much C. A little D. Not at all E. I have no best friends

18. How often do you attend religious services and/or activities?

A. Never B. 1-2 times in the past year C. once a month D. 2-3 times a month E. 1 or more times a week

19. How important is it to conform to society's laws, norms and values?

A. Not important at all B. Fairly unimportant C. Fairly important D. Very important

How much do you agree with the following statements on a range of 1-5?

20. I have a lot of respect for the police. *

1= Strongly Disagree 2= Disagree 3= Neither Agree nor Disagree 4= Agree 5= Strongly Agree

21. It is alright to get around the law if you can get away with it. *

1= Strongly Disagree 2= Disagree 3= Neither Agree nor Disagree 4= Agree 5= Strongly Agree

22. Whatever I do, I try hard. *

1= Strongly Disagree 2= Disagree 3= Neither Agree nor Disagree 4= Agree 5= Strongly Agree

23. I feel like I am part of this school.

1= Strongly Disagree 2= Disagree 3= Neither Agree nor Disagree 4= Agree 5= Strongly Agree

24. I am happy at this school.

1= Strongly Disagree 2= Disagree 3= Neither Agree nor Disagree 4= Agree 5= Strongly Agree

25. How often do you drink in one month on average?

A. Never B. 1-5 times per month C. 6-10 times per month D. More than 10 times per month

If you answered Never proceed to number 29.

26. How many times during the past month did you "binge drink"? (4 or more drinks in one sitting for women and 5 or more in one sitting for men) _____ times in the past month.

27. Have you ever experienced any of the following as a result of binge drinking? And how many times? If you have only experienced some of the following, please put a 0 for the ones that you have not experienced.

A. Injuries _____times.

B. Automobile accident _____times.

C. Violence or witnessed violence _____times.

D. Unprotected sex _____times.

E. Sexual Assault _____times.

F. None of the above

28. Why do you binge drink?

A. Recreationally B. To relieve pain C. To escape from reality D. To help with academic life (stay alert in class, to stay awake to study, etc.)E. I do not binge drink F. Other _____

29. Have you ever used any of the following drugs? (Check all that apply)

____any form of tobacco ____marijuana ____cocaine ____heroin

____inhalants ____LSD (acid) ____mushrooms ____PCP

____GHB ____methamphetamine ____MDMA (ecstasy)

____any form of prescription pain relievers (Oxycontin, Vicodin, etc) that were not prescribed to you

____any prescription stimulants (Adderall, Ritalin, etc) that were not prescribed to you

____none of the above

If you answered none of the above, thank you for your participation.

30. Which of the following do you currently use?

____any form of tobacco ____marijuana ____cocaine ____heroin

____inhalants ____LSD (acid) ____mushrooms ____PCP

____GHB ____methamphetamine ____MDMA (ecstasy)

____any form of prescription pain relievers (Oxycontin, Vicodin, etc) that were not prescribed to you

____any prescription stimulants (Adderall, Ritalin, etc) that were not prescribed to you

____none of the above

31. Why do you currently use the drug(s) you marked above? (Circle all that apply)

A. Recreationally B. To relieve pain C. To escape from reality D. To help with academic life (stay alert in class, to stay awake to study, etc.)E. I do not currently use any drugs F. Other _____

Thank you for your participation in this study.

*These questions are the original, or variations of, questions in Travis Hirschi's original study.

Appendix C:

Correlation Matrix for all Variables

Appendix C

Correlation Matrix for all Variables

Variables	SEX	AGE	YRSCHOOL	MAJOR
SEX	1.000	0.060	-0.082	-0.298 **
AGE	0.060	1.000	0.470 **	-0.025
YRSCHOOL	-0.082	0.470 **	1.000	0.018
MAJOR	-0.298 **	-0.025	0.018	1.000
GPA	-0.151 *	0.143	-0.124	0.137
JOB	-0.069	0.084	0.229 **	-0.047
LIVECAMPUS	0.095	-0.177 *	-0.320 **	-0.020
INVOLVED	0.073	-0.165 *	-0.070	0.053
INVOLVEDCLUBS	-0.126	0.279 *	0.362 **	0.063
INVOLVEDSPORTS	0.268 *	-0.198	-0.206	-0.039
INVOLVEDFRATSOR	0.033	-0.150	-0.121	-0.130
INVOLVEDWORK	-0.184	-0.134	-0.114	-0.106
GOODGRADES	-0.041	-0.007	-0.066	0.058
TEACHERSEXPECT	-0.112	0.042	0.103	0.110
BELIKEPARENTS	0.055	-0.105	-0.136	-0.091
SHAREWITHPARENTS	-0.163 *	0.062	-0.006	-0.003
CLOSEPARENTS	-0.030	-0.074	-0.020	-0.038
BELIKEFRIENDS	-0.164 *	0.034	-0.033	0.157 *
RESPECTOPINIONS	-0.145 *	-0.005	-0.005	0.210 **
RELIGION	-0.011	-0.011	0.084	0.055
CONFORM	-0.028	0.001	0.010	0.110
RESPECTPOLICE	-0.037	-0.096	0.036	0.103
AROUNDTHELAW	0.090	-0.025	-0.050	0.002
TRYHARD	-0.074	0.091	0.047	-0.005
PARTOFSCHOOL	0.020	-0.178 *	-0.136	0.136
HAPPYSCHOOL	-0.081	-0.056	-0.143 *	0.105
DRINK	0.126	0.133	0.138	0.089
BINGEDRINK	0.092	-0.140	-0.227 **	0.025
ANYINJURIES	-0.037	0.042	0.042	0.112
NUMINJURIES	-0.094	-0.044	-0.316	-0.199
ANYAUTOACC	0.120	-0.055	-0.130	-0.037
NUMAUTOACC	---	---	---	---
ANYVIOLENCE	0.021	-0.071	0.055	-0.095
NUMVIOLENCE	0.260	0.730 **	0.128	-0.178
ANYUNPROTECTSEX	0.149	0.017	0.029	-0.180 *

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	SEX	AGE	YRSCHOOL	MAJOR
NUMUNPROTECTSEX	0.217	-0.002	0.171	-0.156
ANYSEXASSAULT	-0.139	-0.069	0.000	0.008
NUMSEXASSAULT	-0.434	-0.616	-0.542	0.079
WHYBDREC	-0.012	-0.144	-0.050	0.150
WHYBDPAIN	-0.086	0.152	0.208	0.138
WHYBDREALITY	-0.078	0.255 *	0.143	-0.048
WHYBDSCHOOL	---	---	---	---
WHYBDOTHER	-0.117	-0.054	-0.111	-0.186
DOESNTBD	---	---	---	---
TRIEDTOBACCO	0.123	0.183 *	0.072	-0.131
TRIEDMARIJ	0.158 *	0.007	-0.039	-0.126
TRIEDCOCAINE	0.134	0.227 **	0.135	0.032
TRIEDHEROIN	0.105	0.040	0.053	-0.034
TRIEDINHALENTS	0.066	0.099	0.131	-0.014
TRIEDLSD	0.041	0.308 **	0.086	0.037
TRIEDMUSHROOM	0.054	0.266 **	0.191 **	0.092
TRIEDECSTASY	-0.012	0.107	0.009	0.028
TRIEDMETH	0.076	0.320 **	0.126	0.038
TRIEDPCP	0.149 *	0.100	0.075	-0.083
TRIEDGHB	0.038	0.078	0.075	0.046
TRIEDPRESCPAIN	0.125	0.202 **	0.110	-0.149 *
TRIEDPRESCSTIM	0.110	0.059	-0.048	0.000
CURRENTTOBACCO	0.137	0.066	-0.060	-0.014
CURRENTMARIJ	0.100	-0.088	-0.077	0.077
CURRENTCOCAINE	0.127	-0.073	-0.148	-0.019
CURRENTHEROIN	---	---	---	---
CURRENTINHALENTS	---	---	---	---
CURRENTLSD	-0.089	-0.034	0.078	0.176
CURRENTMUSHROOM	-0.089	-0.054	-0.035	-0.039
CURRENTECSTASY	0.127	-0.073	-0.035	-0.124
CURRENTMETH	0.127	-0.073	-0.035	-0.124
CURRENTPCP	---	---	---	---
CURRENTGHB	---	---	---	---
CURRENTPRESCPAIN	-0.089	-0.073	-0.148	0.026
CURRENTPRESCSTIM	0.093	0.121	0.126	-0.247 *

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	SEX	AGE	YRSCHOOL	MAJOR
WHYDRUGSREC	0.058	-0.073	-0.246	-0.156
WHYDRUGSPAIN	0.090	0.062	0.326	-0.070
WHYDRUGSREALITY	-0.072	-0.042	0.240	0.228
WHYDRUGSSCHOOL	0.008	-0.004	0.199	0.052
WHYDRUGSOTHER	---	---	---	---
NUMDRUGSTRIED	0.152 *	0.241 **	0.103	-0.059
NUMCURRENTDRUGS	0.151	-0.036	-0.073	-0.043
WHITE	0.003	0.034	-0.019	0.083
LATINO	-0.056	0.059	0.132	-0.114
ASIAN	0.009	-0.001	-0.031	0.027
OTHER	0.044	-0.109	-0.071	-0.034

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GPA	JOB	LIVECAMPUS	INVOLVED
SEX	-0.151 *	-0.069	0.095	0.073
AGE	0.143	0.084	-0.177 *	-0.165 *
YRSCHOOL	-0.124	0.229 **	-0.320 **	-0.070
MAJOR	0.137	-0.047	-0.020	0.053
GPA	1.000	-0.074	0.069	0.084
JOB	-0.074	1.000	-0.295 **	-0.103
LIVECAMPUS	0.069	-0.295 **	1.000	0.218 **
INVOLVED	0.084	-0.103	0.218 **	1.000
INVOLVEDCLUBS	-0.001	0.076	-0.102	---
INVOLVEDSPORTS	0.025	-0.233	0.052	---
INVOLVEDFRATSOR	-0.145	0.220	0.007	---
INVOLVEDWORK	0.160	0.306 *	0.069	---
GOODGRADES	0.151 *	-0.089	0.085	0.063
TEACHERSEXPECT	0.166 *	-0.016	-0.026	0.025
BELIKEPARENTS	-0.062	-0.057	0.086	0.039
SHAREWITHPARENTS	0.189 *	0.054	0.012	0.023
CLOSEPARENTS	0.022	0.007	0.104	-0.008
BELIKEFRIENDS	0.124	-0.050	0.128	0.152 *
RESPECTOPINIONS	0.133	-0.019	0.090	0.102
RELIGION	-0.092	0.025	-0.130	0.052
CONFORM	0.064	0.111	-0.092	-0.007
RESPECTPOLICE	-0.003	0.098	0.062	0.078
AROUNDTHELAW	0.028	-0.056	0.002	0.021
TRYHARD	0.068	0.065	0.070	0.031
PARTOFSCHOOL	0.046	0.083	0.073	0.331 **
HAPPYSCHOOL	0.104	0.025	-0.027	0.103
DRINK	0.022	0.242 **	-0.035	0.144 *
BINGEDRINK	-0.010	0.000	0.120	0.117
ANYINJURIES	0.047	0.073	-0.154	0.003
NUMINJURIES	-0.057	-0.043	---	-0.335
ANYAUTOACC	0.029	0.057	-0.027	-0.061
NUMAUTOACC	---	---	---	---
ANYVIOLENCE	-0.144	0.049	-0.163	0.021
NUMVIOLENCE	-0.056	0.111	---	-0.175
ANYUNPROTECTSEX	-0.003	0.072	-0.025	-0.038

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GPA	JOB	LIVECAMPUS	INVOLVED
NUMUNPROTECTSEX	-0.229	0.116	-0.069	-0.179
ANYSEXASSAULT	-0.040	-0.041	0.077	0.025
NUMSEXASSAULT	0.193	-0.086	-0.108	0.343
WHYBDREC	0.130	-0.016	0.033	0.091
WHYBDPAIN	-0.149	0.024	-0.084	0.087
WHYBDREALITY	-0.070	0.087	0.023	-0.032
WHYBDSCHOOL	---	---	---	---
WHYBDOTHER	-0.117	0.087	-0.052	-0.132
DOESNTBD	---	---	---	---
TRIEDTOBACCO	-0.048	0.134	-0.090	-0.077
TRIEDMARIJ	-0.097	0.107	-0.025	0.043
TRIEDCOCAINE	-0.089	0.004	-0.055	-0.058
TRIEDHEROIN	-0.009	-0.099	-0.027	-0.051
TRIEDINHALENTS	-0.155 *	-0.118	-0.066	-0.061
TRIEDLSD	0.032	-0.088	0.018	-0.076
TRIEDMUSHROOM	0.032	-0.035	0.004	-0.099
TRIEDECSTASY	-0.060	-0.010	0.011	-0.129
TRIEDMETH	-0.032	-0.118	-0.077	-0.089
TRIEDPCP	-0.061	-0.031	-0.038	-0.072
TRIEDGHB	0.046	-0.031	-0.038	-0.072
TRIEDPRESCPAIN	-0.134	-0.001	-0.092	-0.136
TRIEDPRESCSTIM	-0.037	0.070	0.011	-0.088
CURRENTTOBACCO	-0.080	-0.049	-0.008	-0.155
CURRENTMARIJ	-0.072	0.003	0.035	0.084
CURRENTCOCAINE	0.045	0.066	-0.033	-0.079
CURRENTHEROIN	---	---	---	---
CURRENTINHALENTS	---	---	---	---
CURRENTLSD	-0.229 *	-0.171	-0.033	-0.079
CURRENTMUSHROOM	-0.115	0.066	-0.033	-0.079
CURRENTECSTASY	-0.161	-0.171	-0.033	-0.079
CURRENTMETH	-0.161	-0.171	-0.033	-0.079
CURRENTPCP	---	---	---	---
CURRENTGHB	---	---	---	---
CURRENTPRESCPAIN	-0.047	0.066	-0.033	0.143
CURRENTPRESCSTIM	-0.118	0.150	-0.076	-0.079

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GPA	JOB	LIVECAMPUS	INVOLVED
WHYDRUGSREC	0.271	-0.151	0.132	0.052
WHYDRUGSPAIN	-0.304	-0.015	-0.132	-0.210
WHYDRUGSREALITY	0.021	0.069	-0.107	-0.120
WHYDRUGSSCHOOL	0.130	-0.130	-0.065	-0.180
WHYDRUGSOTHER	---	---	---	---
NUMDRUGSTRIED	-0.089	0.023	-0.061	-0.108
NUMCURRENTDRUGS	-0.184	-0.016	-0.029	-0.069
WHITE	0.212 **	0.065	0.117	0.153 *
LATINO	-0.177 *	0.097	-0.060	-0.139
ASIAN	-0.044	-0.129	-0.089	-0.025
OTHER	-0.072	-0.034	0.005	-0.044

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDCLUBS	INVOLVEDSPORTS
SEX	-0.126	0.268 *
AGE	0.279 *	-0.198
YRSCHOOL	0.362 **	-0.206
MAJOR	0.063	-0.039
GPA	-0.001	0.025
JOB	0.076	-0.233
LIVECAMPUS	-0.102	0.052
INVOLVED	---	---
INVOLVEDCLUBS	1.000	-0.388 **
INVOLVEDSPORTS	-0.388 **	1.000
INVOLVEDFRATSOR	-0.436 **	-0.143
INVOLVEDWORK	0.058	-0.043
GOODGRADES	0.002	0.034
TEACHERSEXPECT	0.203	-0.097
BELIKEPARENTS	-0.039	0.163
SHAREWITHPARENTS	-0.022	0.165
CLOSEPARENTS	-0.160	0.143
BELIKEFRIENDS	-0.029	-0.036
RESPECTOPINIONS	0.104	-0.138
RELIGION	0.047	0.057
CONFORM	0.167	-0.126
RESPECTPOLICE	0.201	-0.004
AROUNDTHELAW	-0.023	0.027
TRYHARD	-0.267 *	0.091
PARTOFSCHOOL	-0.137	0.000
HAPPYSCHOOL	-0.068	0.068
DRINK	-0.156	-0.112
BINGEDRINK	-0.167	-0.045
ANYINJURIES	-0.010	0.063
NUMINJURIES	-0.258	0.149
ANYAUTOACC	---	---
NUMAUTOACC	---	---
ANYVIOLENCE	0.024	-0.109
NUMVIOLENCE	-0.593	-0.144
ANYUNPROTECTSEX	-0.247	0.058

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDCLUBS	INVOLVEDSPORTS
NUMUNPROTECTSEX	0.117	0.022
ANYSEXASSAULT	-0.038	-0.098
NUMSEXASSAULT	-1.000	---
WHYBDREC	-0.203	-0.029
WHYBDPAIN	0.322	-0.156
WHYBDREALITY	0.124	0.085
WHYBDSCHOOL	---	---
WHYBDOTHER	---	---
DOESNTBD	---	---
TRIEDTOBACCO	-0.255	0.031
TRIEDMARIJ	-0.176	0.042
TRIEDCOCAINE	-0.061	0.031
TRIEDHEROIN	---	---
TRIEDINHALENTS	0.105	-0.066
TRIEDLSD	0.105	-0.066
TRIEDMUSHROOM	0.185	-0.117
TRIEDECSTASY	-0.042	-0.095
TRIEDMETH	0.105	-0.066
TRIEDPCP	---	---
TRIEDGHB	---	---
TRIEDPRESCPAIN	-0.061	0.031
TRIEDPRESCSTIM	-0.290 *	-0.117
CURRENTTOBACCO	-0.016	0.176
CURRENTMARIJ	-0.178	-0.410 *
CURRENTCOCAINE	---	---
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	---
CURRENTMUSHROOM	---	---
CURRENTECSTASY	---	---
CURRENTMETH	---	---
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.191	-0.095
CURRENTPRESCSTIM	0.169	-0.095

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDCLUBS	INVOLVEDSPORTS
WHYDRUGSREC	-0.043	0.149
WHYDRUGSPAIN	0.346	-0.100
WHYDRUGSREALITY	-0.289	-0.100
WHYDRUGSSCHOOL	---	---
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.143	-0.029
NUMCURRENTDRUGS	-0.153	-0.309
WHITE	-0.274 *	0.185
LATINO	-0.010	-0.151
ASIAN	0.354 **	-0.177
OTHER	-0.034	0.078

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDFRATSOR	INVOLVEDWORK
SEX	0.033	-0.184
AGE	-0.150	-0.134
YRSCHOOL	-0.121	-0.114
MAJOR	-0.130	-0.106
GPA	-0.145	0.160
JOB	0.220	0.306 *
LIVECAMPUS	0.007	0.069
INVOLVED	---	---
INVOLVEDCLUBS	-0.436 **	0.058
INVOLVEDSPORTS	-0.143	-0.043
INVOLVEDFRATSOR	1.000	-0.012
INVOLVEDWORK	-0.012	1.000
GOODGRADES	0.083	0.138
TEACHERSEXPECT	-0.206	0.195
BELIKEPARENTS	0.031	-0.106
SHAREWITHPARENTS	-0.079	0.000
CLOSEPARENTS	-0.065	-0.218
BELIKEFRIENDS	0.112	0.312 *
RESPECTOPINIONS	0.175	0.098
RELIGION	0.102	0.000
CONFORM	-0.014	0.138
RESPECTPOLICE	-0.197	0.064
AROUNDTHELAW	0.095	-0.009
TRYHARD	0.047	0.209
PARTOFSCHOOL	0.193	0.207
HAPPYSCHOOL	-0.062	0.158
DRINK	0.540 **	-0.027
BINGEDRINK	0.518 **	-0.059
ANYINJURIES	-0.264	0.180
NUMINJURIES	0.488	0.149
ANYAUTOACC	---	---
NUMAUTOACC	---	---
ANYVIOLENCE	-0.086	0.021
NUMVIOLENCE	0.289	0.505
ANYUNPROTECTSEX	0.298 *	0.039

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDFRATSOR	INVOLVEDWORK
NUMUNPROTECTSEX	0.059	-0.380
ANYSEXASSAULT	-0.163	0.313 *
NUMSEXASSAULT	---	1.000 **
WHYBDREC	0.358 *	0.121
WHYBDPAIN	-0.107	0.215
WHYBDREALITY	-0.107	0.215
WHYBDSCHOOL	---	---
WHYBDOTHER	---	---
DOESNTBD	---	---
TRIEDTOBACCO	0.121	-0.015
TRIEDMARIJ	0.239	-0.084
TRIEDCOCAINE	-0.032	-0.099
TRIEDHEROIN	---	---
TRIEDINHALENTS	-0.087	-0.048
TRIEDLSD	-0.087	-0.048
TRIEDMUSHROOM	-0.153	-0.085
TRIEDECSTASY	0.283 *	0.221
TRIEDMETH	-0.087	-0.048
TRIEDPCP	---	---
TRIEDGHB	---	---
TRIEDPRESCPAIN	0.114	-0.099
TRIEDPRESCSTIM	0.349 **	-0.085
CURRENTTOBACCO	-0.228	-0.098
CURRENTMARIJ	0.488 **	-0.098
CURRENTCOCAINE	---	---
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	---
CURRENTMUSHROOM	---	---
CURRENTECSTASY	---	---
CURRENTMETH	---	---
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.204	-0.068
CURRENTPRESCSTIM	0.204	-0.068

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	INVOLVEDFRATSOR	INVOLVEDWORK
WHYDRUGSREC	0.134	0.149
WHYDRUGSPAIN	-0.418	-0.100
WHYDRUGSREALITY	0.239	-0.100
WHYDRUGSSCHOOL	---	---
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.172	-0.077
NUMCURRENTDRUGS	0.411 *	-0.154
WHITE	-0.055	-0.157
LATINO	0.184	0.101
ASIAN	-0.121	0.079
OTHER	0.087	0.052

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GOODGRADES	TEACHERSEXPECT
SEX	-0.041	-0.112
AGE	-0.007	0.042
YRSCHOOL	-0.066	0.103
MAJOR	0.058	0.110
GPA	0.151 *	0.166 *
JOB	-0.089	-0.016
LIVECAMPUS	0.085	-0.026
INVOLVED	0.063	0.025
INVOLVEDCLUBS	0.002	0.203
INVOLVEDSPORTS	0.034	-0.097
INVOLVEDFRATSOR	0.083	-0.206
INVOLVEDWORK	0.138	0.195
GOODGRADES	1.000	0.093
TEACHERSEXPECT	0.093	1.000
BELIKEPARENTS	-0.015	0.097
SHAREWITHPARENTS	0.091	0.236 **
CLOSEPARENTS	0.117	0.125
BELIKEFRIENDS	0.136	0.122
RESPECTOPINIONS	0.093	0.124
RELIGION	0.013	0.094
CONFORM	0.052	0.162 *
RESPECTPOLICE	0.084	0.160 *
AROUNDTHELAW	-0.096	-0.077
TRYHARD	0.051	0.178 *
PARTOFSCHOOL	0.056	0.181 *
HAPPYSCHOOL	-0.042	0.175 *
DRINK	-0.124	-0.123
BINGEDRINK	-0.037	-0.109
ANYINJURIES	0.121	0.069
NUMINJURIES	-0.031	-0.101
ANYAUTOACC	-0.133	-0.024
NUMAUTOACC	---	---
ANYVIOLENCE	-0.004	0.061
NUMVIOLENCE	-0.084	-0.138
ANYUNPROTECTSEX	-0.123	-0.022

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GOODGRADES	TEACHERSEXPECT
NUMUNPROTECTSEX	0.132	-0.079
ANYSEXASSAULT	0.035	0.055
NUMSEXASSAULT	0.429	-0.429
WHYBDREC	-0.015	0.056
WHYBDPAIN	0.008	0.227 *
WHYBDREALITY	0.122	0.095
WHYBDSCHOOL	---	---
WHYBDOTHER	0.097	-0.151
DOESNTBD	---	---
TRIEDTOBACCO	-0.054	-0.039
TRIEDMARIJ	-0.058	-0.224 **
TRIEDCOCAINE	-0.032	-0.041
TRIEDHEROIN	-0.036	-0.140
TRIEDINHALENTS	-0.022	-0.026
TRIEDLSD	-0.035	-0.078
TRIEDMUSHROOM	0.029	-0.013
TRIEDECSTASY	0.018	-0.180 *
TRIEDMETH	0.013	-0.084
TRIEDPCP	0.006	-0.041
TRIEDGHB	0.006	-0.120
TRIEDPRESCPAIN	-0.002	-0.085
TRIEDPRESCSTIM	0.060	-0.064
CURRENTTOBACCO	0.071	-0.084
CURRENTMARIJ	-0.113	-0.183
CURRENTCOCAINE	-0.169	-0.023
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	0.068	-0.023
CURRENTMUSHROOM	-0.169	-0.023
CURRENTECSTASY	-0.287 **	-0.179
CURRENTMETH	-0.287 **	-0.179
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.060	-0.052
CURRENTPRESCSTIM	0.068	-0.023

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	GOODGRADES	TEACHERSEXPECT
WHYDRUGSREC	0.009	-0.136
WHYDRUGSPAIN	-0.392 *	0.041
WHYDRUGSREALITY	0.130	0.251
WHYDRUGSSCHOOL	-0.079	0.183
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.021	-0.144
NUMCURRENTDRUGS	-0.147	-0.205
WHITE	0.068	0.032
LATINO	-0.069	0.004
ASIAN	-0.056	-0.134
OTHER	0.043	0.117

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BELIKEPARENTS	SHAREWITHPARENTS
SEX	0.055	-0.163 *
AGE	-0.105	0.062
YRSCHOOL	-0.136	-0.006
MAJOR	-0.091	-0.003
GPA	-0.062	0.189 *
JOB	-0.057	0.054
LIVECAMPUS	0.086	0.012
INVOLVED	0.039	0.023
INVOLVEDCLUBS	-0.039	-0.022
INVOLVEDSPORTS	0.163	0.165
INVOLVEDFRATSOR	0.031	-0.079
INVOLVEDWORK	-0.106	0.000
GOODGRADES	-0.015	0.091
TEACHERSEXPECT	0.097	0.236 **
BELIKEPARENTS	1.000	0.400 **
SHAREWITHPARENTS	0.400 **	1.000
CLOSEPARENTS	0.403 **	0.706 **
BELIKEFRIENDS	0.174 *	0.107
RESPECTOPINIONS	-0.080	0.060
RELIGION	0.110	0.062
CONFORM	0.137	0.095
RESPECTPOLICE	0.121	0.122
AROUNDTHELAW	-0.071	-0.023
TRYHARD	0.104	0.283 **
PARTOFSCHOOL	0.097	0.147 *
HAPPYSCHOOL	0.095	0.135
DRINK	-0.010	0.001
BINGEDRINK	0.043	0.064
ANYINJURIES	-0.028	0.082
NUMINJURIES	0.205	0.054
ANYAUTOACC	0.053	-0.167
NUMAUTOACC	---	---
ANYVIOLENCE	0.114	0.057
NUMVIOLENCE	-0.167	-0.179
ANYUNPROTECTSEX	0.079	0.104

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BELIKEPARENTS	SHAREWITHPARENTS
NUMUNPROTECTSEX	0.102	-0.138
ANYSEXASSAULT	-0.033	0.040
NUMSEXASSAULT	-0.271	-0.485
WHYBDREC	0.103	0.018
WHYBDPAIN	-0.016	-0.100
WHYBDREALITY	-0.029	-0.068
WHYBDSCHOOL	---	---
WHYBDOTHER	0.007	0.055
DOESNTBD	---	---
TRIEDTOBACCO	0.118	0.048
TRIEDMARIJ	-0.024	-0.075
TRIEDCOCAINE	-0.015	-0.041
TRIEDHEROIN	-0.099	-0.142
TRIEDINHALENTS	-0.032	-0.026
TRIEDLSD	-0.040	0.008
TRIEDMUSHROOM	-0.091	-0.041
TRIEDECSTASY	-0.087	-0.122
TRIEDMETH	-0.046	-0.085
TRIEDPCP	0.017	-0.042
TRIEDGHB	-0.088	-0.121
TRIEDPRESCPAIN	-0.041	0.036
TRIEDPRESCSTIM	0.010	0.024
CURRENTTOBACCO	0.121	-0.039
CURRENTMARIJ	0.045	-0.063
CURRENTCOCAINE	0.072	-0.196
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	0.072	0.122
CURRENTMUSHROOM	0.072	-0.037
CURRENTECSTASY	-0.046	-0.196
CURRENTMETH	-0.046	-0.196
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.003	-0.012
CURRENTPRESCSTIM	-0.046	-0.037

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BELIKEPARENTS	SHAREWITHPARENTS
WHYDRUGSREC	0.089	0.140
WHYDRUGSPAIN	-0.003	-0.140
WHYDRUGSREALITY	-0.186	0.137
WHYDRUGSSCHOOL	0.126	0.309
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.028	-0.048
NUMCURRENTDRUGS	0.084	-0.121
WHITE	0.157 *	0.280 **
LATINO	-0.150 *	0.087
ASIAN	-0.163 *	-0.426 **
OTHER	0.134	0.037

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CLOSEPARENTS	BELIKEFRIENDS
SEX	-0.030	-0.164 *
AGE	-0.074	0.034
YRSCHOOL	-0.020	-0.033
MAJOR	-0.038	0.157 *
GPA	0.022	0.124
JOB	0.007	-0.050
LIVECAMPUS	0.104	0.128
INVOLVED	-0.008	0.152 *
INVOLVEDCLUBS	-0.160	-0.029
INVOLVEDSPORTS	0.143	-0.036
INVOLVEDFRATSOR	-0.065	0.112
INVOLVEDWORK	-0.218	0.312 *
GOODGRADES	0.117	0.136
TEACHERSEXPECT	0.125	0.122
BELIKEPARENTS	0.403 **	0.174 *
SHAREWITHPARENTS	0.706 **	0.107
CLOSEPARENTS	1.000	0.059
BELIKEFRIENDS	0.059	1.000
RESPECTOPINIONS	-0.040	0.482 **
RELIGION	0.087	-0.046
CONFORM	0.050	0.084
RESPECTPOLICE	0.145 *	0.097
AROUNDTHELAW	-0.097	0.010
TRYHARD	0.188 **	0.123
PARTOFSCHOOL	0.143 *	0.249 **
HAPPYSCHOOL	0.109	0.095
DRINK	-0.116	0.067
BINGEDRINK	0.038	0.013
ANYINJURIES	0.003	-0.067
NUMINJURIES	0.083	-0.268
ANYAUTOACC	-0.178 *	-0.022
NUMAUTOACC	---	---
ANYVIOLENCE	0.067	-0.105
NUMVIOLENCE	-0.073	-0.007
ANYUNPROTECTSEX	0.105	-0.044

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CLOSEPARENTS	BELIKEFRIENDS
NUMUNPROTECTSEX	-0.042	-0.012
ANYSEXASSAULT	0.050	0.073
NUMSEXASSAULT	-0.171	-0.171
WHYBDREC	0.005	0.046
WHYBDPAIN	-0.064	0.024
WHYBDREALITY	-0.012	-0.070
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.006	-0.156
DOESNTBD	---	---
TRIEDTOBACCO	-0.020	0.046
TRIEDMARIJ	-0.103	-0.138
TRIEDCOCAINE	-0.023	-0.040
TRIEDHEROIN	-0.078	-0.129
TRIEDINHALENTS	0.030	0.054
TRIEDLSD	0.027	0.044
TRIEDMUSHROOM	-0.023	0.075
TRIEDECSTASY	-0.024	0.081
TRIEDMETH	-0.058	0.076
TRIEDPCP	-0.001	-0.264 **
TRIEDGHB	-0.056	-0.103
TRIEDPRESCPAIN	0.078	-0.013
TRIEDPRESCSTIM	0.097	-0.037
CURRENTTOBACCO	0.005	0.162
CURRENTMARIJ	0.059	0.126
CURRENTCOCAINE	-0.225*	-0.007
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	0.114	0.145
CURRENTMUSHROOM	0.001	-0.007
CURRENTECSTASY	-0.112	-0.007
CURRENTMETH	-0.112	-0.007
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.003	-0.015
CURRENTPRESCSTIM	0.001	-0.007

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CLOSEPARENTS	BELIKEFRIENDS
WHYDRUGSREC	0.091	0.009
WHYDRUGSPAIN	0.000	-0.009
WHYDRUGSREALITY	0.000	-0.128
WHYDRUGSSCHOOL	0.156	-0.077
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.019	-0.020
NUMCURRENTDRUGS	-0.006	0.145
WHITE	0.178 *	0.209 **
LATINO	0.098	-0.334 **
ASIAN	-0.343 **	0.051
OTHER	0.069	-0.015

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTOPINIONS	RELIGION	CONFORM
SEX	-0.145 *	-0.011	-0.028
AGE	-0.005	-0.011	0.001
YRSCHOOL	-0.005	0.084	0.010
MAJOR	0.210 **	0.055	0.110
GPA	0.133	-0.092	0.064
JOB	-0.019	0.025	0.111
LIVECAMPUS	0.090	-0.130	-0.092
INVOLVED	0.102	0.052	-0.007
INVOLVEDCLUBS	0.104	0.047	0.167
INVOLVEDSPORTS	-0.138	0.057	-0.126
INVOLVEDFRATSOR	0.175	0.102	-0.014
INVOLVEDWORK	0.098	0.000	0.138
GOODGRADES	0.093	0.013	0.052
TEACHERSEXPECT	0.124	0.094	0.162 *
BELIKEPARENTS	-0.080	0.110	0.137
SHAREWITHPARENTS	0.060	0.062	0.095
CLOSEPARENTS	-0.040	0.087	0.050
BELIKEFRIENDS	0.482 **	-0.046	0.084
RESPECTOPINIONS	1.000	-0.005	0.050
RELIGION	-0.005	1.000	0.090
CONFORM	0.050	0.090	1.000
RESPECTPOLICE	0.111	0.030	0.196 **
AROUNDTHELAW	-0.041	-0.071	-0.186 *
TRYHARD	0.226 **	0.033	0.079
PARTOFSCHOOL	0.196 **	0.058	0.227 **
HAPPYSCHOOL	0.212 **	-0.108	0.183 *
DRINK	0.062	-0.060	-0.084
BINGEDRINK	0.207 *	-0.054	-0.131
ANYINJURIES	-0.007	-0.080	-0.126
NUMINJURIES	-0.527 **	-0.194	-0.137
ANYAUTOACC	-0.126	-0.018	0.018
NUMAUTOACC	---	---	---
ANYVIOLENCE	-0.066	-0.056	-0.074
NUMVIOLENCE	0.013	0.373	0.062
ANYUNPROTECTSEX	0.060	-0.008	0.000

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTOPINIONS	RELIGION	CONFORM
NUMUNPROTECTSEX	0.249	-0.062	0.370
ANYSEXASSAULT	0.119	-0.135	-0.011
NUMSEXASSAULT	-0.868*	-0.243	0.434
WHYBDREC	0.175	-0.062	0.065
WHYBDPAIN	0.205	0.171	-0.072
WHYBDREALITY	-0.190	0.290 **	0.026
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.208	-0.030	0.039
DOESNTBD	---	---	---
TRIEDTOBACCO	-0.015	-0.047	-0.086
TRIEDMARIJ	-0.082	-0.126	-0.162 *
TRIEDCOCAINE	-0.103	-0.084	-0.022
TRIEDHEROIN	-0.106	-0.077	-0.184 *
TRIEDINHALENTS	0.045	-0.025	-0.051
TRIEDLSD	0.073	-0.074	-0.118
TRIEDMUSHROOM	0.111	-0.142	-0.071
TRIEDECSTASY	0.020	-0.006	-0.154 *
TRIEDMETH	0.030	-0.035	-0.142
TRIEDPCP	-0.283 **	-0.068	-0.052
TRIEDGHB	-0.084	-0.068	-0.192 **
TRIEDPRESCPAIN	0.031	-0.154 *	-0.102
TRIEDPRESCSTIM	-0.054	-0.186 *	-0.102
CURRENTTOBACCO	0.074	0.013	-0.019
CURRENTMARIJ	0.098	-0.122	-0.086
CURRENTCOCAINE	-0.126	-0.019	0.028
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.107	-0.019	0.028
CURRENTMUSHROOM	-0.009	-0.019	-0.105
CURRENTECSTASY	-0.126	-0.107	-0.238 *
CURRENTMETH	-0.126	-0.107	-0.238 *
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	0.139	-0.043	0.186
CURRENTPRESCSTIM	-0.009	0.070	0.028

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTOPINIONS	RELIGION	CONFORM
WHYDRUGSREC	-0.099	-0.221	-0.256
WHYDRUGSPAIN	0.099	-0.096	-0.029
WHYDRUGSREALITY	0.150	0.167	0.240
WHYDRUGSSCHOOL	0.126	-0.144	0.079
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	-0.029	-0.142	-0.167 *
NUMCURRENTDRUGS	0.086	-0.099	-0.067
WHITE	0.102	-0.217 **	-0.118
LATINO	-0.183 *	0.191 *	0.050
ASIAN	0.035	-0.088	0.059
OTHER	0.002	0.223 **	0.044

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTPOLICE	AROUNDTHELAW	TRYHARD
SEX	-0.037	0.090	-0.074
AGE	-0.096	-0.025	0.091
YRSCHOOL	0.036	-0.050	0.047
MAJOR	0.103	0.002	-0.005
GPA	-0.003	0.028	0.068
JOB	0.098	-0.056	0.065
LIVECAMPUS	0.062	0.002	0.070
INVOLVED	0.078	0.021	0.031
INVOLVEDCLUBS	0.201	-0.023	-0.267 *
INVOLVEDSPORTS	-0.004	0.027	0.091
INVOLVEDFRATSOR	-0.197	0.095	0.047
INVOLVEDWORK	0.064	-0.009	0.209
GOODGRADES	0.084	-0.096	0.051
TEACHERSEXPECT	0.160 *	-0.077	0.178 *
BELIKEPARENTS	0.121	-0.071	0.104
SHAREWITHPARENTS	0.122	-0.023	0.283 **
CLOSEPARENTS	0.145 *	-0.097	0.188 **
BELIKEFRIENDS	0.097	0.010	0.123
RESPECTOPINIONS	0.111	-0.041	0.226 **
RELIGION	0.030	-0.071	0.033
CONFORM	0.196 **	-0.186 *	0.079
RESPECTPOLICE	1.000	-0.220 **	0.154 *
AROUNDTHELAW	-0.220 **	1.000	-0.122
TRYHARD	0.154 *	-0.122	1.000
PARTOFSCHOOL	0.314 **	-0.021	0.189 **
HAPPYSCHOOL	0.215 **	-0.048	0.298 **
DRINK	-0.142	0.196 **	0.087
BINGEDRINK	-0.102	0.143	0.013
ANYINJURIES	0.002	0.066	0.040
NUMINJURIES	-0.299	0.365	-0.286
ANYAUTOACC	-0.141	0.134	-0.039
NUMAUTOACC	---	---	---
ANYVIOLENCE	-0.051	0.040	0.081
NUMVIOLENCE	0.062	-0.076	-0.493 *
ANYUNPROTECTSEX	-0.173 *	0.019	0.108

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTPOLICE	AROUNDTHELAW	TRYHARD
NUMUNPROTECTSEX	-0.433 *	-0.082	-0.141
ANYSEXASSAULT	-0.013	-0.025	0.103
NUMSEXASSAULT	-0.214	0.000	0.171
WHYBDREC	0.041	0.024	-0.051
WHYBDPAIN	0.105	0.052	0.063
WHYBDREALITY	0.061	-0.079	-0.064
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.078	0.066	0.064
DOESNTBD	---	---	---
TRIEDTOBACCO	-0.181 *	0.258 **	0.038
TRIEDMARIJ	-0.222 **	0.232 **	-0.018
TRIEDCOCAINE	-0.300 **	0.178 *	-0.075
TRIEDHEROIN	0.020	-0.034	-0.153 *
TRIEDINHALENTS	0.016	0.015	-0.078
TRIEDLSD	-0.070	0.062	0.008
TRIEDMUSHROOM	-0.158 *	0.057	0.017
TRIEDECSTASY	-0.251 **	0.192 **	-0.132
TRIEDMETH	-0.116	0.104	-0.048
TRIEDPCP	0.084	0.065	-0.131
TRIEDGHB	-0.029	0.065	-0.131
TRIEDPRESCPAIN	-0.220 **	0.178 *	-0.066
TRIEDPRESCSTIM	-0.168 *	0.067	-0.037
CURRENTTOBACCO	-0.059	0.023	0.014
CURRENTMARIJ	-0.304 **	0.273 **	-0.014
CURRENTCOCAINE	-0.156	0.167	-0.037
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.057	0.054	0.127
CURRENTMUSHROOM	-0.057	0.054	-0.037
CURRENTECSTASY	-0.254 *	0.281 **	-0.202
CURRENTMETH	-0.254 *	0.281 **	-0.202
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.130	0.123	-0.161
CURRENTPRESCSTIM	-0.057	0.054	-0.037

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	RESPECTPOLICE	AROUNDTHELAW	TRYHARD
WHYDRUGSREC	0.084	-0.085	0.086
WHYDRUGSPAIN	-0.211	0.245	-0.086
WHYDRUGSREALITY	-0.120	0.161	0.046
WHYDRUGSSCHOOL	-0.072	0.179	0.132
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	-0.258 **	0.229 **	-0.065
NUMCURRENTDRUGS	-0.332 **	0.305 **	-0.094
WHITE	0.042	-0.063	0.142
LATINO	0.009	-0.015	0.070
ASIAN	-0.068	0.136	-0.199 **
OTHER	0.015	-0.062	-0.030

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	PARTOFSCHOOL	HAPPYSCHOOL	DRINK
SEX	0.020	-0.081	0.126
AGE	-0.178 *	-0.056	0.133
YRSCHOOL	-0.136	-0.143 *	0.138
MAJOR	0.136	0.105	0.089
GPA	0.046	0.104	0.022
JOB	0.083	0.025	0.242 **
LIVECAMPUS	0.073	-0.027	-0.035
INVOLVED	0.331 **	0.103	0.144 *
INVOLVEDCLUBS	-0.137	-0.068	-0.156
INVOLVEDSPORTS	0.000	0.068	-0.112
INVOLVEDFRATSOR	0.193	-0.062	0.540 **
INVOLVEDWORK	0.207	0.158	-0.027
GOODGRADES	0.056	-0.042	-0.124
TEACHERSEXPECT	0.181 *	0.175 *	-0.123
BELIKEPARENTS	0.097	0.095	-0.010
SHAREWITHPARENTS	0.147 *	0.135	0.001
CLOSEPARENTS	0.143 *	0.109	-0.116
BELIKEFRIENDS	0.249 **	0.095	0.067
RESPECTOPINIONS	0.196 **	0.212 **	0.062
RELIGION	0.058	-0.108	-0.060
CONFORM	0.227 **	0.183 *	-0.084
RESPECTPOLICE	0.314 **	0.215 **	-0.142
AROUNDTHELAW	-0.021	-0.048	0.196 **
TRYHARD	0.189 **	0.298 **	0.087
PARTOFSCHOOL	1.000	0.510 **	0.035
HAPPYSCHOOL	0.510 **	1.000	-0.043
DRINK	0.035	-0.043	1.000
BINGEDRINK	0.001	0.144	0.582 **
ANYINJURIES	-0.214 *	-0.090	0.110
NUMINJURIES	-0.166	0.238	0.038
ANYAUTOACC	0.044	0.031	0.212 *
NUMAUTOACC	---	---	---
ANYVIOLENCE	-0.145	0.024	0.025
NUMVIOLENCE	0.117	-0.109	-0.107
ANYUNPROTECTSEX	-0.061	0.040	0.248 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	PARTOFSCHOOL	HAPPYSCHOOL	DRINK
NUMUNPROTECTSEX	-0.336	-0.170	-0.199
ANYSEXASSAULT	-0.030	0.026	0.063
NUMSEXASSAULT	0.054	0.412	-0.225
WHYBDREC	0.202	0.268 *	-0.001
WHYBDPAIN	0.103	-0.081	0.013
WHYBDREALITY	-0.150	-0.380 **	-0.146
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.169	0.138	-0.126
DOESNTBD	---	---	---
TRIEDTOBACCO	-0.093	-0.027	0.245 **
TRIEDMARIJ	-0.150 *	-0.038	0.401 **
TRIEDCOCAINE	-0.130	-0.012	0.197 **
TRIEDHEROIN	-0.137	-0.149 *	-0.002
TRIEDINHALENTS	-0.233 **	-0.157 *	0.032
TRIEDLSD	-0.169 *	-0.039	0.133
TRIEDMUSHROOM	-0.152 *	-0.012	0.175 *
TRIEDECSTASY	-0.189 *	-0.108	0.250 **
TRIEDMETH	-0.146	0.003	0.189 *
TRIEDPCP	-0.010	-0.090	-0.067
TRIEDGHB	-0.133	-0.090	0.061
TRIEDPRESCPAIN	-0.253 **	0.010	0.163 *
TRIEDPRESCSTIM	-0.143	-0.018	0.156 *
CURRENTTOBACCO	-0.068	-0.044	0.084
CURRENTMARIJ	0.055	0.053	0.356 **
CURRENTCOCAINE	0.062	0.038	0.222 *
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.153	-0.082	0.222 *
CURRENTMUSHROOM	-0.153	-0.082	-0.044
CURRENTECSTASY	0.062	0.038	0.089
CURRENTMETH	0.062	0.038	0.089
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	0.062	-0.082	-0.044
CURRENTPRESCSTIM	-0.104	-0.078	0.021

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	PARTOFSCHOOL	HAPPYSCHOOL	DRINK
WHYDRUGSREC	0.014	0.299	0.355 *
WHYDRUGSPAIN	-0.169	-0.136	-0.161
WHYDRUGSREALITY	0.064	-0.124	-0.037
WHYDRUGSSCHOOL	-0.121	0.093	0.111
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	-0.239 **	-0.064	0.311 **
NUMCURRENTDRUGS	-0.033	-0.027	0.301 **
WHITE	-0.020	0.054	0.185 *
LATINO	-0.020	0.028	-0.001
ASIAN	-0.003	-0.083	-0.137
OTHER	0.055	-0.003	-0.097

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BINGEDRINK	ANYINJURIES	NUMINJURIES
SEX	0.092	-0.037	-0.094
AGE	-0.140	0.042	-0.044
YRSCHOOL	-0.227 **	0.042	-0.316
MAJOR	0.025	0.112	-0.199
GPA	-0.010	0.047	-0.057
JOB	0.000	0.073	-0.043
LIVECAMPUS	0.120	-0.154	---
INVOLVED	0.117	0.003	-0.335
INVOLVEDCLUBS	-0.167	-0.010	-0.258
INVOLVEDSPORTS	-0.045	0.063	0.149
INVOLVEDFRATSOR	0.518 **	-0.264	0.488
INVOLVEDWORK	-0.059	0.180	0.149
GOODGRADES	-0.037	0.121	-0.031
TEACHERSEXPECT	-0.109	0.069	-0.101
BELIKEPARENTS	0.043	-0.028	0.205
SHAREWITHPARENTS	0.064	0.082	0.054
CLOSEPARENTS	0.038	0.003	0.083
BELIKEFRIENDS	0.013	-0.067	-0.268
RESPECTOPINIONS	0.207 *	-0.007	-0.527 **
RELIGION	-0.054	-0.080	-0.194
CONFORM	-0.131	-0.126	-0.137
RESPECTPOLICE	-0.102	0.002	-0.299
AROUNDTHELAW	0.143	0.066	0.365
TRYHARD	0.013	0.040	-0.286
PARTOFSCHOOL	0.001	-0.214 *	-0.166
HAPPYSCHOOL	0.144	-0.090	0.238
DRINK	0.582 **	0.110	0.038
BINGEDRINK	1.000	0.185 *	-0.177
ANYINJURIES	0.185 *	1.000	---
NUMINJURIES	-0.177	---	1.000
ANYAUTOACC	---	0.185 *	0.240
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.032	0.459 **	0.189
NUMVIOLENCE	-0.258	-0.170	0.042
ANYUNPROTECTSEX	0.323 **	0.021	0.042

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BINGEDRINK	ANYINJURIES	NUMINJURIES
NUMUNPROTECTSEX	0.163	-0.029	-0.143
ANYSEXASSAULT	-0.031	0.180	-0.161
NUMSEXASSAULT	-0.122	0.067	-0.161
WHYBDREC	---	---	---
WHYBDPAIN	-0.136	0.076	0.722 **
WHYBDREALITY	---	---	---
WHYBDSCHOOL	0.210 *	0.126	0.387
WHYBDOTHER	0.337 **	0.131	0.270
DOESNTBD	0.304 **	0.216 *	0.454 *
TRIEDTOBACCO	-0.065	-0.043	---
TRIEDMARIJ	0.049	0.110	-0.144
TRIEDCOCAINE	0.161	0.083	0.240
TRIEDHEROIN	0.218 *	0.088	0.029
TRIEDINHALENTS	0.286 **	0.074	0.029
TRIEDLSD	0.242 **	0.083	0.240
TRIEDMUSHROOM	-0.065	-0.043	---
TRIEDECSTASY	0.000	0.101	0.240
TRIEDMETH	0.252 **	0.259 **	0.125
TRIEDPCP	0.183 *	0.024	0.418
TRIEDGHB	0.231 *	0.258 *	-0.107
TRIEDPRESCPAIN	0.256 *	0.079	-0.231
TRIEDPRESCSTIM	---	0.215	0.265
CURRENTTOBACCO	---	---	---
CURRENTMARIJ	---	---	---
CURRENTCOCAINE	0.252 *	0.215	---
CURRENTHEROIN	-0.104	-0.062	---
CURRENTINHALENTS	0.201	-0.062	---
CURRENTLSD	0.201	-0.062	---
CURRENTMUSHROOM	---	---	---
CURRENTECSTASY	---	---	---
CURRENTMETH	0.064	0.112	-0.194
CURRENTPCP	0.150	-0.062	---
CURRENTGHB	0.163	-0.029	-0.143
CURRENTPRESCPAIN	-0.031	0.180	-0.161
CURRENTPRESCSTIM	-0.122	0.067	-0.161

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	BINGEDRINK	ANYINJURIES	NUMINJURIES
WHYDRUGSREC	0.278	0.154	0.312
WHYDRUGSPAIN	-0.025	-0.154	-0.312
WHYDRUGSREALITY	0.080	-0.067	-0.312
WHYDRUGSSCHOOL	0.124	-0.161	---
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.336 **	0.182 *	0.355
NUMCURRENTDRUGS	0.348 **	0.195	-0.147
WHITE	0.145	0.189 *	-0.057
LATINO	-0.011	0.101	0.144
ASIAN	-0.026	-0.247 **	---
OTHER	-0.185 *	-0.093	-0.167

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ANYAUTOACC	NUMAUTOACC	ANYVIOLENCE
SEX	0.120	---	0.021
AGE	-0.055	---	-0.071
YRSCHOOL	-0.130	---	0.055
MAJOR	-0.037	---	-0.095
GPA	0.029	---	-0.144
JOB	0.057	---	0.049
LIVECAMPUS	-0.027	---	-0.163
INVOLVED	-0.061	---	0.021
INVOLVEDCLUBS	---	---	0.024
INVOLVEDSPORTS	---	---	-0.109
INVOLVEDFRATSOR	---	---	-0.086
INVOLVEDWORK	---	---	0.021
GOODGRADES	-0.133	---	-0.004
TEACHERSEXPECT	-0.024	---	0.061
BELIKEPARENTS	0.053	---	0.114
SHAREWITHPARENTS	-0.167	---	0.057
CLOSEPARENTS	-0.178 *	---	0.067
BELIKEFRIENDS	-0.022	---	-0.105
RESPECTOPINIONS	-0.126	---	-0.066
RELIGION	-0.018	---	-0.056
CONFORM	0.018	---	-0.074
RESPECTPOLICE	-0.141	---	-0.051
AROUNDTHELAW	0.134	---	0.040
TRYHARD	-0.039	---	0.081
PARTOFSCHOOL	0.044	---	-0.145
HAPPYSCHOOL	0.031	---	0.024
DRINK	0.212 *	---	0.025
BINGEDRINK	---	---	0.032
ANYINJURIES	0.185 *	---	0.459 **
NUMINJURIES	0.240	---	0.189
ANYAUTOACC	1.000	---	0.172 *
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.172 *	---	1.000
NUMVIOLENCE	-0.024	---	---
ANYUNPROTECTSEX	0.048	---	0.074

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ANYAUTOACC	NUMAUTOACC	ANYVIOLENCE
NUMUNPROTECTSEX	-0.050	---	0.184
ANYSEXASSAULT	-0.015	---	0.285 **
NUMSEXASSAULT	---	---	0.429
WHYBDREC	0.046	---	-0.018
WHYBDPAIN	-0.028	---	0.171
WHYBDREALITY	-0.036	---	0.057
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.017	---	0.071
DOESNTBD	---	---	---
TRIEDTOBACCO	0.096	---	0.246 **
TRIEDMARIJ	0.069	---	0.258 **
TRIEDCOCAINE	0.244 **	---	0.196 *
TRIEDHEROIN	-0.008	---	-0.047
TRIEDINHALENTS	-0.018	---	0.185 *
TRIEDLSD	-0.020	---	0.150
TRIEDMUSHROOM	-0.033	---	0.217 *
TRIEDECSTASY	-0.033	---	0.116
TRIEDMETH	-0.021	---	0.088
TRIEDPCP	-0.008	---	-0.047
TRIEDGHB	-0.011	---	0.085
TRIEDPRESCPAIN	-0.041	---	0.258 **
TRIEDPRESCSTIM	-0.032	---	0.217 *
CURRENTTOBACCO	0.281 *	---	0.252 *
CURRENTMARIJ	0.161	---	0.068
CURRENTCOCAINE	1.000 **	---	0.175
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.013	---	0.175
CURRENTMUSHROOM	-0.013	---	0.175
CURRENTECSTASY	-0.013	---	---
CURRENTMETH	-0.013	---	---
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.030	---	0.056
CURRENTPRESCSTIM	-0.013	---	-0.076

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ANYAUTOACC	NUMAUTOACC	ANYVIOLENCE
WHYDRUGSREC	0.099	---	0.093
WHYDRUGSPAIN	-0.099	---	-0.035
WHYDRUGSREALITY	-0.080	---	-0.155
WHYDRUGSSCHOOL	-0.048	---	-0.203
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.042	---	0.299 **
NUMCURRENTDRUGS	0.309 **	---	0.216
WHITE	-0.097	---	0.088
LATINO	0.227 *	---	0.137
ASIAN	-0.047	---	-0.158
OTHER	-0.030	---	-0.095

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMVIOLENCE	ANYUNPROTECTSEX
SEX	0.260	0.149
AGE	0.730 **	0.017
YRSCHOOL	0.128	0.029
MAJOR	-0.178	-0.180 *
GPA	-0.056	-0.003
JOB	0.111	0.072
LIVECAMPUS	---	-0.025
INVOLVED	-0.175	-0.038
INVOLVEDCLUBS	-0.593	-0.247
INVOLVEDSPORTS	-0.144	0.058
INVOLVEDFRATSOR	0.289	0.298 *
INVOLVEDWORK	0.505	0.039
GOODGRADES	-0.084	-0.123
TEACHERSEXPECT	-0.138	-0.022
BELIKEPARENTS	-0.167	0.079
SHAREWITHPARENTS	-0.179	0.104
CLOSEPARENTS	-0.073	0.105
BELIKEFRIENDS	-0.007	-0.044
RESPECTOPINIONS	0.013	0.060
RELIGION	0.373	-0.008
CONFORM	0.062	0.000
RESPECTPOLICE	0.062	-0.173 *
AROUNDTHELAW	-0.076	0.019
TRYHARD	-0.493 *	0.108
PARTOFSCHOOL	0.117	-0.061
HAPPYSCHOOL	-0.109	0.040
DRINK	-0.107	0.248 **
BINGEDRINK	-0.258	0.323 **
ANYINJURIES	-0.170	0.021
NUMINJURIES	0.042	0.042
ANYAUTOACC	-0.024	0.048
NUMAUTOACC	---	---
ANYVIOLENCE	---	0.074
NUMVIOLENCE	1.000	0.199
ANYUNPROTECTSEX	0.199	1.000

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMVIOLENCE	ANYUNPROTECTSEX
NUMUNPROTECTSEX	-0.097	-0.052
ANYSEXASSAULT	-0.073	0.348 **
NUMSEXASSAULT	0.996	-0.442
WHYBDREC	0.351	-0.239 *
WHYBDPAIN	-0.200	-0.030
WHYBDREALITY	-0.200	-0.029
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.138	-0.037
DOESNTBD	---	---
TRIEDTOBACCO	0.162	0.133
TRIEDMARIJ	0.094	0.115
TRIEDCOCAINE	-0.082	0.300 **
TRIEDHEROIN	---	-0.018
TRIEDINHALENTS	-0.064	-0.010
TRIEDLSD	-0.025	0.011
TRIEDMUSHROOM	-0.097	0.000
TRIEDECSTASY	-0.071	0.000
TRIEDMETH	0.009	0.011
TRIEDPCP	---	-0.018
TRIEDGHB	0.009	0.022
TRIEDPRESCPAIN	-0.118	0.193 *
TRIEDPRESCSTIM	-0.136	-0.036
CURRENTTOBACCO	0.384	-0.001
CURRENTMARIJ	-0.178	0.192
CURRENTCOCAINE	-0.036	0.040
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	-0.027
CURRENTMUSHROOM	-0.058	-0.027
CURRENTECSTASY	---	-0.027
CURRENTMETH	---	-0.027
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.084	0.428 **
CURRENTPRESCSTIM	---	0.040

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMVIOLENCE	ANYUNPROTECTSEX
WHYDRUGSREC	0.167	0.107
WHYDRUGSPAIN	-0.167	0.303
WHYDRUGSREALITY	-0.117	0.432 *
WHYDRUGSSCHOOL	---	0.668 **
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.052	0.124
NUMCURRENTDRUGS	0.031	0.219
WHITE	0.163	-0.058
LATINO	-0.114	0.237 **
ASIAN	-0.084	-0.101
OTHER	-0.031	-0.043

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMUNPROTECTSEX	ANYSEXASSAULT
SEX	0.217	-0.139
AGE	-0.002	-0.069
YRSCHOOL	0.171	0.000
MAJOR	-0.156	0.008
GPA	-0.229	-0.040
JOB	0.116	-0.041
LIVECAMPUS	-0.069	0.077
INVOLVED	-0.179	0.025
INVOLVEDCLUBS	0.117	-0.038
INVOLVEDSPORTS	0.022	-0.098
INVOLVEDFRATSOR	0.059	-0.163
INVOLVEDWORK	-0.380	0.313 *
GOODGRADES	0.132	0.035
TEACHERSEXPECT	-0.079	0.055
BELIKEPARENTS	0.102	-0.033
SHAREWITHPARENTS	-0.138	0.040
CLOSEPARENTS	-0.042	0.050
BELIKEFRIENDS	-0.012	0.073
RESPECTOPINIONS	0.249	0.119
RELIGION	-0.062	-0.135
CONFORM	0.370	-0.011
RESPECTPOLICE	-0.433 *	-0.013
AROUNDTHELAW	-0.082	-0.025
TRYHARD	-0.141	0.103
PARTOFSCHOOL	-0.336	-0.030
HAPPYSCHOOL	-0.170	0.026
DRINK	-0.199	0.063
BINGEDRINK	-0.077	0.212 *
ANYINJURIES	0.290	0.208 *
NUMINJURIES	-0.412	-0.136
ANYAUTOACC	-0.050	-0.015
NUMAUTOACC	---	---
ANYVIOLENCE	0.184	0.285 **
NUMVIOLENCE	-0.097	-0.073
ANYUNPROTECTSEX	-0.052	0.348 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMUNPROTECTSEX	ANYSEXASSAULT
NUMUNPROTECTSEX	1.000	-0.106
ANYSEXASSAULT	-0.106	1.000
NUMSEXASSAULT	-0.204	---
WHYBDREC	0.110	-0.069
WHYBDPAIN	-0.055	0.179
WHYBDREALITY	-0.085	0.117
WHYBDSCHOOL	---	---
WHYBDOTHER	---	-0.035
DOESNTBD	---	---
TRIEDTOBACCO	0.173	0.061
TRIEDMARIJ	0.097	0.157
TRIEDCOCAINE	0.350	0.188 *
TRIEDHEROIN	---	-0.018
TRIEDINHALENTS	-0.049	0.376 **
TRIEDLSD	-0.075	0.337 **
TRIEDMUSHROOM	-0.111	0.412 **
TRIEDECSTASY	-0.113	0.290 **
TRIEDMETH	-0.077	0.129
TRIEDPCP	---	-0.018
TRIEDGHB	-0.053	-0.025
TRIEDPRESCPAIN	0.398	0.123
TRIEDPRESCSTIM	-0.078	0.052
CURRENTTOBACCO	0.452	0.043
CURRENTMARIJ	0.235	0.146
CURRENTCOCAINE	-0.063	-0.030
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	0.435 **
CURRENTMUSHROOM	---	-0.030
CURRENTECSTASY	---	-0.030
CURRENTMETH	---	-0.030
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.681 **	-0.062
CURRENTPRESCSTIM	-0.063	-0.030

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMUNPROTECTSEX	ANYSEXASSAULT
WHYDRUGSREC	0.147	-0.084
WHYDRUGSPAIN	-0.150	0.116
WHYDRUGSREALITY	-0.195	0.199
WHYDRUGSSCHOOL	-0.105	-0.060
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.125	0.275 **
NUMCURRENTDRUGS	0.514 *	0.118
WHITE	0.289	0.023
LATINO	-0.285	0.158
ASIAN	---	-0.108
OTHER	-0.039	-0.068

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMSEXASSAULT	WHYBDREC	WHYBDPAIN
SEX	-0.434	-0.012	-0.086
AGE	-0.616	-0.144	0.152
YRSCHOOL	-0.542	-0.050	0.208
MAJOR	0.079	0.150	0.138
GPA	0.193	0.130	-0.149
JOB	-0.086	-0.016	0.024
LIVECAMPUS	-0.108	0.033	-0.084
INVOLVED	0.343	0.091	0.087
INVOLVEDCLUBS	-1.000 **	-0.203	0.322
INVOLVEDSPORTS	---	-0.029	-0.156
INVOLVEDFRATSOR	---	0.358 *	-0.107
INVOLVEDWORK	1.000 **	0.121	0.215
GOODGRADES	0.429	-0.015	0.008
TEACHERSEXPECT	-0.429	0.056	0.227 *
BELIKEPARENTS	-0.271	0.103	-0.016
SHAREWITHPARENTS	-0.485	0.018	-0.100
CLOSEPARENTS	-0.171	0.005	-0.064
BELIKEFRIENDS	-0.171	0.046	0.024
RESPECTOPINIONS	-0.868 *	0.175	0.205
RELIGION	-0.243	-0.062	0.171
CONFORM	0.434	0.065	-0.072
RESPECTPOLICE	-0.214	0.041	0.105
AROUNDTHELAW	0.000	0.024	0.052
TRYHARD	0.171	-0.051	0.063
PARTOFSCHOOL	0.054	0.202	0.103
HAPPYSCHOOL	0.412	0.268 *	-0.081
DRINK	-0.225	-0.001	0.013
BINGEDRINK	-0.257	0.163	-0.031
ANYINJURIES	0.728	-0.029	0.180
NUMINJURIES	1.000 **	-0.143	-0.161
ANYAUTOACC	---	0.046	-0.028
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.429	-0.018	0.171
NUMVIOLENCE	0.996	0.351	-0.200
ANYUNPROTECTSEX	-0.442	-0.239 *	-0.030

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMSEXASSAULT	WHYBDREC	WHYBDPAIN
NUMUNPROTECTSEX	-0.204	0.110	-0.055
ANYSEXASSAULT	---	-0.069	0.179
NUMSEXASSAULT	1.000	0.662	-0.221
WHYBDREC	0.662	1.000	-0.352 **
WHYBDPAIN	-0.221	-0.352 **	1.000
WHYBDREALITY	-0.221	-0.597 **	0.434 **
WHYBDSCHOOL	---	---	---
WHYBDOTHER	---	-0.403 **	-0.038
DOESNTBD	---	---	---
TRIEDTOBACCO	-0.600	-0.078	0.038
TRIEDMARIJ	---	-0.035	0.029
TRIEDCOCAINE	-0.243	-0.111	0.041
TRIEDHEROIN	---	---	---
TRIEDINHALENTS	0.086	-0.097	0.223 *
TRIEDLSD	0.086	0.093	-0.056
TRIEDMUSHROOM	-0.343	0.064	0.051
TRIEDECSTASY	0.000	-0.094	0.171
TRIEDMETH	0.217	0.105	-0.063
TRIEDPCP	---	---	---
TRIEDGHB	---	0.046	-0.028
TRIEDPRESCPAIN	-0.243	-0.102	-0.009
TRIEDPRESCSTIM	0.217	-0.003	-0.108
CURRENTTOBACCO	0.217	0.073	-0.130
CURRENTMARIJ	0.429	0.106	-0.012
CURRENTCOCAINE	---	0.056	-0.038
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.217	0.056	-0.038
CURRENTMUSHROOM	---	0.056	-0.038
CURRENTECSTASY	---	0.056	-0.038
CURRENTMETH	---	0.056	-0.038
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	---	0.056	-0.038
CURRENTPRESCSTIM	-0.434	-0.063	-0.078

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMSEXASSAULT	WHYBDREC	WHYBDPAIN
WHYDRUGSREC	0.293	0.343	-0.595 **
WHYDRUGSPAIN	-0.845	-0.609 **	0.595 **
WHYDRUGSREALITY	-0.845	-0.417 *	0.283
WHYDRUGSSCHOOL	-0.683	-0.471 *	-0.053
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	-0.153	-0.055	0.044
NUMCURRENTDRUGS	0.189	0.114	-0.109
WHITE	-0.243	0.092	-0.194
LATINO	0.243	-0.245 *	0.200
ASIAN	---	0.009	0.133
OTHER	---	0.126	-0.083

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDREALTIY	WHYBDSCHOOL
SEX	-0.078	---
AGE	0.255 *	---
YRSCHOOL	0.143	---
MAJOR	-0.048	---
GPA	-0.070	---
JOB	0.087	---
LIVECAMPUS	0.023	---
INVOLVED	-0.032	---
INVOLVEDCLUBS	0.124	---
INVOLVEDSPORTS	0.085	---
INVOLVEDFRATSOR	-0.107	---
INVOLVEDWORK	0.215	---
GOODGRADES	0.122	---
TEACHERSEXPECT	0.095	---
BELIKEPARENTS	-0.029	---
SHAREWITHPARENTS	-0.068	---
CLOSEPARENTS	-0.012	---
BELIKEFRIENDS	-0.070	---
RESPECTOPINIONS	-0.190	---
RELIGION	0.290 **	---
CONFORM	0.026	---
RESPECTPOLICE	0.061	---
AROUNDTHELAW	-0.079	---
TRYHARD	-0.064	---
PARTOFSCHOOL	-0.150	---
HAPPYSCHOOL	-0.380 **	---
DRINK	-0.146	---
BINGEDRINK	-0.122	---
ANYINJURIES	0.067	---
NUMINJURIES	-0.161	---
ANYAUTOACC	-0.036	---
NUMAUTOACC	---	---
ANYVIOLENCE	0.057	---
NUMVIOLENCE	-0.200	---
ANYUNPROTECTSEX	-0.029	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDREALTIY	WHYBDSCHOOL
NUMUNPROTECTSEX	-0.085	---
ANYSEXASSAULT	0.117	---
NUMSEXASSAULT	-0.221	---
WHYBDREC	-0.597 **	---
WHYBDPAIN	0.434 **	---
WHYBDREALITY	1.000	---
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.049	---
DOESNTBD	---	---
TRIEDTOBACCO	0.147	---
TRIEDMARIJ	0.000	---
TRIEDCOCAINE	-0.017	---
TRIEDHEROIN	---	---
TRIEDINHALENTS	0.156	---
TRIEDLSD	-0.073	---
TRIEDMUSHROOM	-0.006	---
TRIEDECSTASY	0.310 **	---
TRIEDMETH	-0.082	---
TRIEDPCP	---	---
TRIEDGHB	-0.036	---
TRIEDPRESCPAIN	0.028	---
TRIEDPRESCSTIM	-0.027	---
CURRENTTOBACCO	-0.018	---
CURRENTMARIJ	-0.200	---
CURRENTCOCAINE	-0.046	---
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.046	---
CURRENTMUSHROOM	-0.046	---
CURRENTECSTASY	-0.046	---
CURRENTMETH	-0.046	---
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.094	---
CURRENTPRESCSTIM	-0.046	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDREALTIY	WHYBDSCHOOL
WHYDRUGSREC	-0.233	---
WHYDRUGSPAIN	0.233	---
WHYDRUGSREALITY	0.283	---
WHYDRUGSSCHOOL	-0.053	---
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.080	---
NUMCURRENTDRUGS	-0.175	---
WHITE	-0.134	---
LATINO	0.234 *	---
ASIAN	0.047	---
OTHER	-0.107	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDOTHER	DOESNTBD	TRIEDTOBACCO
SEX	-0.117	---	0.123
AGE	-0.054	---	0.183 *
YRSCHOOL	-0.111	---	0.072
MAJOR	-0.186	---	-0.131
GPA	-0.117	---	-0.048
JOB	0.087	---	0.134
LIVECAMPUS	-0.052	---	-0.090
INVOLVED	-0.132	---	-0.077
INVOLVEDCLUBS	---	---	-0.225
INVOLVEDSPORTS	---	---	0.031
INVOLVEDFRATSOR	---	---	0.121
INVOLVEDWORK	---	---	-0.015
GOODGRADES	0.097	---	-0.054
TEACHERSEXPECT	-0.151	---	-0.039
BELIKEPARENTS	0.007	---	0.118
SHAREWITHPARENTS	0.055	---	0.048
CLOSEPARENTS	-0.006	---	-0.020
BELIKEFRIENDS	-0.156	---	0.046
RESPECTOPINIONS	-0.208	---	-0.015
RELIGION	-0.030	---	-0.047
CONFORM	0.039	---	-0.086
RESPECTPOLICE	-0.078	---	-0.181 *
AROUNDTHELAW	0.066	---	0.258 **
TRYHARD	0.064	---	0.038
PARTOFSCHOOL	-0.169	---	-0.093
HAPPYSCHOOL	0.138	---	-0.027
DRINK	-0.126	---	0.245 **
BINGEDRINK	-0.136	---	0.210 *
ANYINJURIES	0.076	---	0.126
NUMINJURIES	0.722 **	---	0.387
ANYAUTOACC	-0.017	---	0.096
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.071	---	0.246 **
NUMVIOLENCE	-0.138	---	0.162
ANYUNPROTECTSEX	-0.037	---	0.133

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDOTHER	DOESNTBD	TRIEDTOBACCO
NUMUNPROTECTSEX	---	---	0.173
ANYSEXASSAULT	-0.035	---	0.061
NUMSEXASSAULT	---	---	-0.600
WHYBDREC	-0.403 **	---	-0.078
WHYBDPAIN	-0.038	---	0.038
WHYBDREALITY	-0.049	---	0.147
WHYBDSCHOOL	---	---	---
WHYBDOTHER	1.000	---	0.149
DOESNTBD	---	---	---
TRIEDTOBACCO	0.149	---	1.000
TRIEDMARIJ	0.090	---	0.505 **
TRIEDCOCAINE	0.159	---	0.427 **
TRIEDHEROIN	---	---	0.099
TRIEDINHALENTS	-0.030	---	0.245 **
TRIEDLSD	-0.035	---	0.207 **
TRIEDMUSHROOM	-0.061	---	0.348 **
TRIEDECSTASY	-0.067	---	0.292 **
TRIEDMETH	-0.039	---	0.285 **
TRIEDPCP	---	---	0.140
TRIEDGHB	-0.017	---	0.140
TRIEDPRESCPAIN	0.109	---	0.431 **
TRIEDPRESCSTIM	0.149	---	0.292 **
CURRENTTOBACCO	-0.080	---	0.291 **
CURRENTMARIJ	-0.155	---	0.015
CURRENTCOCAINE	-0.023	---	0.079
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.023	---	0.079
CURRENTMUSHROOM	-0.023	---	0.079
CURRENTECSTASY	-0.023	---	0.079
CURRENTMETH	-0.023	---	0.079
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.048	---	0.079
CURRENTPRESCSTIM	-0.023	---	0.079

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYBDOTHER	DOESNTBD	TRIEDTOBACCO
WHYDRUGSREC	---	---	0.015
WHYDRUGSPAIN	---	---	-0.015
WHYDRUGSREALITY	---	---	0.259
WHYDRUGSSCHOOL	---	---	0.156
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.093	---	0.678 **
NUMCURRENTDRUGS	-0.145	---	0.206
WHITE	0.094	---	0.283 **
LATINO	-0.043	---	-0.067
ASIAN	-0.054	---	-0.076
OTHER	-0.036	---	-0.239 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDMARIJ	TRIEDCOCAINE	TRIEDHEROIN
SEX	0.158 *	0.134	0.105
AGE	0.007	0.227 **	0.040
YRSCHOOL	-0.039	0.135	0.053
MAJOR	-0.126	0.032	-0.034
GPA	-0.097	-0.089	-0.009
JOB	0.107	0.004	-0.099
LIVECAMPUS	-0.025	-0.055	-0.027
INVOLVED	0.043	-0.058	-0.051
INVOLVEDCLUBS	-0.176	-0.061	---
INVOLVEDSPORTS	0.042	0.031	---
INVOLVEDFRATSOR	0.239	-0.032	---
INVOLVEDWORK	-0.084	-0.099	---
GOODGRADES	-0.058	-0.032	-0.036
TEACHERSEXPECT	-0.224 **	-0.041	-0.140
BELIKEPARENTS	-0.024	-0.015	-0.099
SHAREWITHPARENTS	-0.075	-0.041	-0.142
CLOSEPARENTS	-0.103	-0.023	-0.078
BELIKEFRIENDS	-0.138	-0.040	-0.129
RESPECTOPINIONS	-0.082	-0.103	-0.106
RELIGION	-0.126	-0.084	-0.077
CONFORM	-0.162 *	-0.022	-0.184 *
RESPECTPOLICE	-0.222 **	-0.300 **	0.020
AROUNDTHELAW	0.232 **	0.178 *	-0.034
TRYHARD	-0.018	-0.075	-0.153 *
PARTOFSCHOOL	-0.150 *	-0.130	-0.137
HAPPYSCHOOL	-0.038	-0.012	-0.149 *
DRINK	0.401 **	0.197 **	-0.002
BINGEDRINK	0.337 **	0.304 **	-0.065
ANYINJURIES	0.131	0.216 *	-0.043
NUMINJURIES	0.270	0.454 *	---
ANYAUTOACC	0.069	0.244 **	-0.008
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.258 **	0.196 *	-0.047
NUMVIOLENCE	0.094	-0.082	---
ANYUNPROTECTSEX	0.115	0.300 **	-0.018

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDMARIJ	TRIEDCOCAINE	TRIEDHEROIN
NUMUNPROTECTSEX	0.097	0.350	---
ANYSEXASSAULT	0.157	0.188 *	-0.018
NUMSEXASSAULT	---	-0.243	---
WHYBDREC	-0.035	-0.111	---
WHYBDPAIN	0.029	0.041	---
WHYBDREALITY	0.000	-0.017	---
WHYBDSCHOOL	---	---	---
WHYBDOTHER	0.090	0.159	---
DOESNTBD	---	---	---
TRIEDTOBACCO	0.505 **	0.427 **	0.099
TRIEDMARIJ	1.000	0.312 **	0.072
TRIEDCOCAINE	0.312 **	1.000	0.232 **
TRIEDHEROIN	0.072	0.232 **	1.000
TRIEDINHALENTS	0.180 *	0.364 **	0.403 **
TRIEDLSD	0.195 **	0.427 **	0.372 **
TRIEDMUSHROOM	0.312 **	0.482 **	0.232 **
TRIEDECSTASY	0.263 **	0.434 **	0.240 **
TRIEDMETH	0.209 **	0.576 **	0.347 **
TRIEDPCP	0.103	0.329 **	0.705 **
TRIEDGHB	0.103	0.329 **	0.705 **
TRIEDPRESCPAIN	0.356 **	0.476 **	0.186 *
TRIEDPRESCSTIM	0.302 **	0.301 **	0.240 **
CURRENTTOBACCO	0.008	0.312 **	-0.042
CURRENTMARIJ	0.215 *	0.214 *	-0.073
CURRENTCOCAINE	0.033	0.220 *	-0.011
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.033	0.220 *	-0.011
CURRENTMUSHROOM	0.033	-0.051	-0.011
CURRENTECSTASY	0.033	0.220 *	-0.011
CURRENTMETH	0.033	0.220 *	-0.011
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.095	0.131	-0.026
CURRENTPRESCSTIM	0.033	0.220 *	-0.011

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDMARIJ	TRIEDCOCAINE	TRIEDHEROIN
WHYDRUGSREC	0.179	0.020	---
WHYDRUGSPAIN	-0.179	0.142	---
WHYDRUGSREALITY	0.107	0.273	---
WHYDRUGSSCHOOL	0.065	0.109	---
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.629 **	0.707 **	0.398 **
NUMCURRENTDRUGS	0.121	0.410 **	-0.073
WHITE	0.310 **	0.089	0.083
LATINO	0.019	0.088	-0.034
ASIAN	-0.193 *	-0.075	-0.042
OTHER	-0.226 **	-0.127	-0.031

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDINHALENTS	TRIEDLSD	TRIEDMUSHROOMS
SEX	0.066	0.041	0.054
AGE	0.099	0.308 **	0.266 **
YRSCHOOL	0.131	0.086	0.191 **
MAJOR	-0.014	0.037	0.092
GPA	-0.155 *	0.032	0.032
JOB	-0.118	-0.088	-0.035
LIVECAMPUS	-0.066	0.018	0.004
INVOLVED	-0.061	-0.076	-0.099
INVOLVEDCLUBS	0.105	0.105	0.185
INVOLVEDSPORTS	-0.066	-0.066	-0.117
INVOLVEDFRATSOR	-0.087	-0.087	-0.153
INVOLVEDWORK	-0.048	-0.048	-0.085
GOODGRADES	-0.022	-0.035	0.029
TEACHERSEXPECT	-0.026	-0.078	-0.013
BELIKEPARENTS	-0.032	-0.040	-0.091
SHAREWITHPARENTS	-0.026	0.008	-0.041
CLOSEPARENTS	0.030	0.027	-0.023
BELIKEFRIENDS	0.054	0.044	0.075
RESPECTOPINIONS	0.045	0.073	0.111
RELIGION	-0.025	-0.074	-0.142
CONFORM	-0.051	-0.118	-0.071
RESPECTPOLICE	0.016	-0.070	-0.158 *
AROUNDTHELAW	0.015	0.062	0.057
TRYHARD	-0.078	0.008	0.017
PARTOFSCHOOL	-0.233 **	-0.169 *	-0.152 *
HAPPYSCHOOL	-0.157 *	-0.039	-0.012
DRINK	0.032	0.133	0.175 *
BINGEDRINK	0.049	0.161	0.218 *
ANYINJURIES	0.110	0.083	0.088
NUMINJURIES	-0.144	0.240	0.029
ANYAUTOACC	-0.018	-0.020	-0.033
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.185 *	0.150	0.217 *
NUMVIOLENCE	-0.064	-0.025	-0.097
ANYUNPROTECTSEX	-0.010	0.011	0.000

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDINHALENTS	TRIEDLSD	TRIEDMUSHROOMS
NUMUNPROTECTSEX	-0.049	-0.075	-0.111
ANYSEXASSAULT	0.376 **	0.337 **	0.412 **
NUMSEXASSAULT	0.086	0.086	-0.343
WHYBDREC	-0.097	0.093	0.064
WHYBDPAIN	0.223 *	-0.056	0.051
WHYBDREALITY	0.156	-0.073	-0.006
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.030	-0.035	-0.061
DOESNTBD	---	---	---
TRIEDTOBACCO	0.245 **	0.207 **	0.348 **
TRIEDMARIJ	0.180 *	0.195 **	0.312 **
TRIEDCOCAINE	0.364 **	0.427 **	0.482 **
TRIEDHEROIN	0.403 **	0.372 **	0.232 **
TRIEDINHALENTS	1.000	0.603 **	0.470 **
TRIEDLSD	0.603 **	1.000	0.623 **
TRIEDMUSHROOM	0.470 **	0.623 **	1.000
TRIEDECSTASY	0.378 **	0.544 **	0.568 **
TRIEDMETH	0.411 **	0.654 **	0.484 **
TRIEDPCP	0.276 **	0.253 **	0.148 *
TRIEDGHB	0.276 **	0.527 **	0.329 **
TRIEDPRESCPAIN	0.463 **	0.419 **	0.476 **
TRIEDPRESCSTIM	0.269 **	0.342 **	0.434 **
CURRENTTOBACCO	0.288 **	0.252 *	0.245 *
CURRENTMARIJ	0.102	0.066	0.115
CURRENTCOCAINE	-0.028	-0.031	-0.049
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.397 **	0.365 **	0.228 *
CURRENTMUSHROOM	0.397 **	0.365 **	0.228 *
CURRENTECSTASY	-0.028	-0.031	-0.049
CURRENTMETH	-0.028	-0.031	-0.049
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.028	-0.031	-0.049
CURRENTPRESCSTIM	-0.065	-0.070	0.014

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDINHALENTS	TRIEDLSD	TRIEDMUSHROOMS
WHYDRUGSREC	-0.094	0.164	-0.052
WHYDRUGSPAIN	0.094	-0.164	0.052
WHYDRUGSREALITY	0.160	-0.134	-0.042
WHYDRUGSSCHOOL	-0.080	-0.080	-0.144
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.587 **	0.672 **	0.734 **
NUMCURRENTDRUGS	0.240 *	0.195	0.198
WHITE	0.143	0.224 **	0.243 **
LATINO	0.002	-0.090	-0.092
ASIAN	-0.106	-0.114	-0.093
OTHER	-0.078	-0.084	-0.136

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDECSTASY	TRIEDMETH	TRIEDPCP
SEX	-0.012	0.076	0.149 *
AGE	0.107	0.320 **	0.100
YRSCHOOL	0.009	0.126	0.075
MAJOR	0.028	0.038	-0.083
GPA	-0.060	-0.032	-0.061
JOB	-0.010	-0.118	-0.031
LIVECAMPUS	0.011	-0.077	-0.038
INVOLVED	-0.129	-0.089	-0.072
INVOLVEDCLUBS	-0.042	0.105	---
INVOLVEDSPORTS	-0.095	-0.066	---
INVOLVEDFRATSOR	0.283 *	-0.087	---
INVOLVEDWORK	0.221	-0.048	---
GOODGRADES	0.018	0.013	0.006
TEACHERSEXPECT	-0.180 *	-0.084	-0.041
BELIKEPARENTS	-0.087	-0.046	0.017
SHAREWITHPARENTS	-0.122	-0.085	-0.042
CLOSEPARENTS	-0.024	-0.058	-0.001
BELIKEFRIENDS	0.081	0.076	-0.264 **
RESPECTOPINIONS	0.020	0.030	-0.283 **
RELIGION	-0.006	-0.035	-0.068
CONFORM	-0.154 *	-0.142	-0.052
RESPECTPOLICE	-0.251 **	-0.116	0.084
AROUNDTHELAW	0.192 **	0.104	0.065
TRYHARD	-0.132	-0.048	-0.131
PARTOFSCHOOL	-0.189 *	-0.146	-0.010
HAPPYSCHOOL	-0.108	0.003	-0.090
DRINK	0.250 **	0.189 *	-0.067
BINGEDRINK	0.286 **	0.242 **	-0.065
ANYINJURIES	0.074	0.083	-0.043
NUMINJURIES	0.029	0.240	---
ANYAUTOACC	-0.033	-0.021	-0.008
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.116	0.088	-0.047
NUMVIOLENCE	-0.071	0.009	---
ANYUNPROTECTSEX	0.000	0.011	-0.018

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDECSTASY	TRIEDMETH	TRIEDPCP
NUMUNPROTECTSEX	-0.113	-0.077	---
ANYSEXASSAULT	0.290 **	0.129	-0.018
NUMSEXASSAULT	0.000	0.217	---
WHYBDREC	-0.094	0.105	---
WHYBDPAIN	0.171	-0.063	---
WHYBDREALITY	0.310 **	-0.082	---
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.067	-0.039	---
DOESNTBD	---	---	---
TRIEDTOBACCO	0.292 **	0.285 **	0.140
TRIEDMARIJ	0.263 **	0.209 **	0.103
TRIEDCOCAINE	0.434 **	0.576 **	0.329 **
TRIEDHEROIN	0.240 **	0.347 **	0.705 **
TRIEDINHALENTS	0.378 **	0.411 **	0.276 **
TRIEDLSD	0.544 **	0.654 **	0.253 **
TRIEDMUSHROOM	0.568 **	0.484 **	0.148 *
TRIEDECSTASY	1.000	0.502 **	0.154 *
TRIEDMETH	0.502 **	1.000	0.235 **
TRIEDPCP	0.154 *	0.235 **	1.000
TRIEDGHB	0.340 **	0.492 **	0.495 **
TRIEDPRESCPAIN	0.384 **	0.382 **	0.111
TRIEDPRESCSTIM	0.315 **	0.218 **	0.154 *
CURRENTTOBACCO	0.263 *	0.222 *	-0.059
CURRENTMARIJ	0.074	0.119	-0.104
CURRENTCOCAINE	-0.047	-0.033	-0.016
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.237 *	0.339 **	-0.016
CURRENTMUSHROOM	0.237 *	-0.033	-0.016
CURRENTECSTASY	0.237 *	0.339 **	-0.016
CURRENTMETH	0.237 *	0.339 **	-0.016
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.108	-0.076	-0.037
CURRENTPRESCSTIM	-0.047	-0.033	-0.016

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDECSTASY	TRIEDMETH	TRIEDPCP
WHYDRUGSREC	0.121	0.219	---
WHYDRUGSPAIN	0.052	-0.013	---
WHYDRUGSREALITY	-0.042	-0.179	---
WHYDRUGSSCHOOL	-0.144	-0.107	---
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.659 **	0.649 **	0.344 **
NUMCURRENTDRUGS	0.224 *	0.249 *	-0.103
WHITE	0.089	0.106	0.009
LATINO	-0.024	-0.090	0.099
ASIAN	0.021	0.024	-0.060
OTHER	-0.127	-0.084	-0.044

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDGHB	TRIEDPRESCPAIN	TRIEDPRESCSTIM
SEX	0.038	0.125	0.110
AGE	0.078	0.202 **	0.059
YRSCHOOL	0.075	0.110	-0.048
MAJOR	0.046	-0.149 *	0.000
GPA	0.046	-0.134	-0.037
JOB	-0.031	-0.001	0.070
LIVECAMPUS	-0.038	-0.092	0.011
INVOLVED	-0.072	-0.136	-0.088
INVOLVEDCLUBS	---	-0.061	-0.290 *
INVOLVEDSPORTS	---	0.031	-0.117
INVOLVEDFRATSOR	---	0.114	0.349 **
INVOLVEDWORK	---	-0.099	-0.085
GOODGRADES	0.006	-0.002	0.060
TEACHERSEXPECT	-0.120	-0.085	-0.064
BELIKEPARENTS	-0.088	-0.041	0.010
SHAREWITHPARENTS	-0.121	0.036	0.024
CLOSEPARENTS	-0.056	0.078	0.097
BELIKEFRIENDS	-0.103	-0.013	-0.037
RESPECTOPINIONS	-0.084	0.031	-0.054
RELIGION	-0.068	-0.154 *	-0.186 *
CONFORM	-0.192 **	-0.102	-0.102
RESPECTPOLICE	-0.029	-0.220 **	-0.168 *
AROUNDTHELAW	0.065	0.178 *	0.067
TRYHARD	-0.131	-0.066	-0.037
PARTOFSCHOOL	-0.133	-0.253 **	-0.143
HAPPYSCHOOL	-0.090	0.010	-0.018
DRINK	0.061	0.163 *	0.156 *
BINGEDRINK	0.000	0.252 **	0.183 *
ANYINJURIES	0.101	0.259 **	0.024
NUMINJURIES	0.240	0.125	0.418
ANYAUTOACC	-0.011	-0.041	-0.032
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.085	0.258 **	0.217 *
NUMVIOLENCE	0.009	-0.118	-0.136
ANYUNPROTECTSEX	0.022	0.193 *	-0.036

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDGHB	TRIEDPRESCPAIN	TRIEDPRESCSTIM
NUMUNPROTECTSEX	-0.053	0.398	-0.078
ANYSEXASSAULT	-0.025	0.123	0.052
NUMSEXASSAULT	---	-0.243	0.217
WHYBDREC	0.046	-0.102	-0.003
WHYBDPAIN	-0.028	-0.009	-0.108
WHYBDREALITY	-0.036	0.028	-0.027
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.017	0.109	0.149
DOESNTBD	---	---	---
TRIEDTOBACCO	0.140	0.431 **	0.292 **
TRIEDMARIJ	0.103	0.356 **	0.302 **
TRIEDCOCAINE	0.329 **	0.476 **	0.301 **
TRIEDHEROIN	0.705 **	0.186 *	0.240 **
TRIEDINHALENTS	0.276 **	0.463 **	0.269 **
TRIEDLSD	0.527 **	0.419 **	0.342 **
TRIEDMUSHROOM	0.329 **	0.476 **	0.434 **
TRIEDECSTASY	0.340 **	0.384 **	0.315 **
TRIEDMETH	0.492 **	0.382 **	0.218 **
TRIEDPCP	0.495 **	0.111	0.154 *
TRIEDGHB	1.000	0.264 **	0.154 *
TRIEDPRESCPAIN	0.264 **	1.000	0.497 **
TRIEDPRESCSTIM	0.154 *	0.497 **	1.000
CURRENTTOBACCO	-0.059	0.268 *	0.175
CURRENTMARIJ	-0.104	0.316 **	0.266 *
CURRENTCOCAINE	-0.016	-0.066	-0.047
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.016	0.171	0.237 *
CURRENTMUSHROOM	-0.016	0.171	0.237 *
CURRENTECSTASY	-0.016	0.171	-0.047
CURRENTMETH	-0.016	0.171	-0.047
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.037	0.391 **	0.022
CURRENTPRESCSTIM	-0.016	-0.066	0.237 *

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	TRIEDGHB	TRIEDPRESCPAIN	TRIEDPRESCSTIM
WHYDRUGSREC	---	0.058	-0.015
WHYDRUGSPAIN	---	0.238	-0.151
WHYDRUGSREALITY	---	0.097	-0.069
WHYDRUGSSCHOOL	---	0.262	-0.156
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.466 **	0.724 **	0.587 **
NUMCURRENTDRUGS	-0.103	0.458 **	0.295 **
WHITE	0.118	0.154 *	0.254 **
LATINO	-0.048	0.059	-0.135
ASIAN	-0.060	-0.098	-0.123
OTHER	-0.044	-0.161 *	-0.068

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTTOBACCO	CURRENTMARIJ
SEX	0.137	0.100
AGE	0.066	-0.088
YRSCHOOL	-0.060	-0.077
MAJOR	-0.014	0.077
GPA	-0.080	-0.072
JOB	-0.049	0.003
LIVECAMPUS	-0.008	0.035
INVOLVED	-0.155	0.084
INVOLVEDCLUBS	-0.016	-0.178
INVOLVEDSPORTS	0.176	-0.410 *
INVOLVEDFRATSOR	-0.228	0.488 **
INVOLVEDWORK	-0.098	-0.098
GOODGRADES	0.071	-0.113
TEACHERSEXPECT	-0.084	-0.183
BELIKEPARENTS	0.121	0.045
SHAREWITHPARENTS	-0.039	-0.063
CLOSEPARENTS	0.005	0.059
BELIKEFRIENDS	0.162	0.126
RESPECTOPINIONS	0.074	0.098
RELIGION	0.013	-0.122
CONFORM	-0.019	-0.086
RESPECTPOLICE	-0.059	-0.304 **
AROUNDTHELAW	0.023	0.273 **
TRYHARD	0.014	-0.014
PARTOFSCHOOL	-0.068	0.055
HAPPYSCHOOL	-0.044	0.053
DRINK	0.084	0.356 **
BINGEDRINK	0.231 *	0.256 *
ANYINJURIES	0.258 *	0.079
NUMINJURIES	-0.107	-0.231
ANYAUTOACC	0.281 *	0.161
NUMAUTOACC	---	---
ANYVIOLENCE	0.252 *	0.068
NUMVIOLENCE	0.384	-0.178
ANYUNPROTECTSEX	-0.001	0.192

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTTOBACCO	CURRENTMARIJ
NUMUNPROTECTSEX	0.452	0.235
ANYSEXASSAULT	0.043	0.146
NUMSEXASSAULT	0.217	0.429
WHYBDREC	0.073	0.106
WHYBDPAIN	-0.130	-0.012
WHYBDREALITY	-0.018	-0.200
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.080	-0.155
DOESNTBD	---	---
TRIEDTOBACCO	0.291 **	0.015
TRIEDMARIJ	0.008	0.215 *
TRIEDCOCAINE	0.312 **	0.214 *
TRIEDHEROIN	-0.042	-0.073
TRIEDINHALENTS	0.288 **	0.102
TRIEDLSD	0.252 *	0.066
TRIEDMUSHROOM	0.245 *	0.115
TRIEDECSTASY	0.263 *	0.074
TRIEDMETH	0.222 *	0.119
TRIEDPCP	-0.059	-0.104
TRIEDGHB	-0.059	-0.104
TRIEDPRESCPAIN	0.268 *	0.316 **
TRIEDPRESCSTIM	0.175	0.266 *
CURRENTTOBACCO	1.000	0.149
CURRENTMARIJ	0.149	1.000
CURRENTCOCAINE	0.270 **	0.154
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	0.270 **	0.154
CURRENTMUSHROOM	0.270 **	0.154
CURRENTECSTASY	-0.042	0.154
CURRENTMETH	-0.042	0.154
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.048	0.248 *
CURRENTPRESCSTIM	-0.042	0.154

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTTOBACCO	CURRENTMARIJ
WHYDRUGSREC	0.367 *	-0.052
WHYDRUGSPAIN	-0.367 *	0.052
WHYDRUGSREALITY	-0.299	0.199
WHYDRUGSSCHOOL	-0.180	0.120
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.352 **	0.215 *
NUMCURRENTDRUGS	0.584 **	0.797 **
WHITE	0.091	-0.152
LATINO	-0.087	0.095
ASIAN	0.031	-0.069
OTHER	-0.096	0.268 *

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTCOCAINE	CURRENTHEROIN
SEX	0.127	---
AGE	-0.073	---
YRSCHOOL	-0.148	---
MAJOR	-0.019	---
GPA	0.045	---
JOB	0.066	---
LIVECAMPUS	-0.033	---
INVOLVED	-0.079	---
INVOLVEDCLUBS	---	---
INVOLVEDSPORTS	---	---
INVOLVEDFRATSOR	---	---
INVOLVEDWORK	---	---
GOODGRADES	-0.169	---
TEACHERSEXPECT	-0.023	---
BELIKEPARENTS	0.072	---
SHAREWITHPARENTS	-0.196	---
CLOSEPARENTS	-0.225 *	---
BELIKEFRIENDS	-0.007	---
RESPECTOPINIONS	-0.126	---
RELIGION	-0.019	---
CONFORM	0.028	---
RESPECTPOLICE	-0.156	---
AROUNDTHELAW	0.167	---
TRYHARD	-0.037	---
PARTOFSCHOOL	0.062	---
HAPPYSCHOOL	0.038	---
DRINK	0.222 *	---
BINGEDRINK	---	---
ANYINJURIES	0.215	---
NUMINJURIES	0.265	---
ANYAUTOACC	1.000 **	---
NUMAUTOACC	---	---
ANYVIOLENCE	0.175	---
NUMVIOLENCE	-0.036	---
ANYUNPROTECTSEX	0.040	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTCOCAINE	CURRENTHEROIN
NUMUNPROTECTSEX	-0.063	---
ANYSEXASSAULT	-0.030	---
NUMSEXASSAULT	---	---
WHYBDREC	0.056	---
WHYBDPAIN	-0.038	---
WHYBDREALITY	-0.046	---
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.023	---
DOESNTBD	---	---
TRIEDTOBACCO	0.079	---
TRIEDMARIJ	0.033	---
TRIEDCOCAINE	0.220 *	---
TRIEDHEROIN	-0.011	---
TRIEDINHALENTS	-0.028	---
TRIEDLSD	-0.031	---
TRIEDMUSHROOM	-0.049	---
TRIEDECSTASY	-0.047	---
TRIEDMETH	-0.033	---
TRIEDPCP	-0.016	---
TRIEDGHB	-0.016	---
TRIEDPRESCPAIN	-0.066	---
TRIEDPRESCSTIM	-0.047	---
CURRENTTOBACCO	0.270 **	---
CURRENTMARIJ	0.154	---
CURRENTCOCAINE	1.000	---
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.011	---
CURRENTMUSHROOM	-0.011	---
CURRENTECSTASY	-0.011	---
CURRENTMETH	-0.011	---
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.026	---
CURRENTPRESCSTIM	-0.011	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTCOCAINE	CURRENTHEROIN
WHYDRUGSREC	0.092	---
WHYDRUGSPAIN	-0.092	---
WHYDRUGSREALITY	-0.075	---
WHYDRUGSSCHOOL	-0.045	---
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.008	---
NUMCURRENTDRUGS	0.305 **	---
WHITE	-0.137	---
LATINO	0.236 *	---
ASIAN	-0.046	---
OTHER	-0.027	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTINHALENTS	CURRENTLSD
SEX	---	-0.089
AGE	---	-0.034
YRSCHOOL	---	0.078
MAJOR	---	0.176
GPA	---	-0.229 *
JOB	---	-0.171
LIVECAMPUS	---	-0.033
INVOLVED	---	-0.079
INVOLVEDCLUBS	---	---
INVOLVEDSPORTS	---	---
INVOLVEDFRATSOR	---	---
INVOLVEDWORK	---	---
GOODGRADES	---	0.068
TEACHERSEXPECT	---	-0.023
BELIKEPARENTS	---	0.072
SHAREWITHPARENTS	---	0.122
CLOSEPARENTS	---	0.114
BELIKEFRIENDS	---	0.145
RESPECTOPINIONS	---	0.107
RELIGION	---	-0.019
CONFORM	---	0.028
RESPECTPOLICE	---	-0.057
AROUNDTHELAW	---	0.054
TRYHARD	---	0.127
PARTOFSCHOOL	---	-0.153
HAPPYSCHOOL	---	-0.082
DRINK	---	0.222 *
BINGEDRINK	---	0.252 *
ANYINJURIES	---	0.215
NUMINJURIES	---	---
ANYAUTOACC	---	-0.013
NUMAUTOACC	---	---
ANYVIOLENCE	---	0.175
NUMVIOLENCE	---	---
ANYUNPROTECTSEX	---	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTINHALENTS	CURRENTLSD
NUMUNPROTECTSEX	---	---
ANYSEXASSAULT	---	0.435 **
NUMSEXASSAULT	---	0.217
WHYBDREC	---	0.056
WHYBDPAIN	---	-0.038
WHYBDREALITY	---	-0.046
WHYBDSCHOOL	---	---
WHYBDOTHER	---	-0.023
DOESNTBD	---	---
TRIEDTOBACCO	---	0.079
TRIEDMARIJ	---	0.033
TRIEDCOCAINE	---	0.220 *
TRIEDHEROIN	---	-0.011
TRIEDINHALENTS	---	0.397 **
TRIEDLSD	---	0.365 **
TRIEDMUSHROOM	---	0.228 *
TRIEDECSTASY	---	0.237 *
TRIEDMETH	---	0.339 **
TRIEDPCP	---	-0.016
TRIEDGHB	---	-0.016
TRIEDPRESCPAIN	---	0.171
TRIEDPRESCSTIM	---	0.237 *
CURRENTTOBACCO	---	0.270 **
CURRENTMARIJ	---	0.154
CURRENTCOCAINE	---	-0.011
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	1.000
CURRENTMUSHROOM	---	-0.011
CURRENTECSTASY	---	-0.011
CURRENTMETH	---	-0.011
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	---	-0.026
CURRENTPRESCSTIM	---	-0.011

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTINHALENTS	CURRENTLSD
WHYDRUGSREC	---	0.092
WHYDRUGSPAIN	---	-0.092
WHYDRUGSREALITY	---	-0.075
WHYDRUGSSCHOOL	---	-0.045
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	---	0.326 **
NUMCURRENTDRUGS	---	0.305 **
WHITE	---	0.087
LATINO	---	-0.051
ASIAN	---	-0.046
OTHER	---	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMUSHROOMS	CURRENTECSTASY
SEX	-0.089	0.127
AGE	-0.054	-0.073
YRSCHOOL	-0.035	-0.035
MAJOR	-0.039	-0.124
GPA	-0.115	-0.161
JOB	0.066	-0.171
LIVECAMPUS	-0.033	-0.033
INVOLVED	-0.079	-0.079
INVOLVEDCLUBS	---	---
INVOLVEDSPORTS	---	---
INVOLVEDFRATSOR	---	---
INVOLVEDWORK	---	---
GOODGRADES	-0.169	-0.287 **
TEACHERSEXPECT	-0.023	-0.179
BELIKEPARENTS	0.072	-0.046
SHAREWITHPARENTS	-0.037	-0.196
CLOSEPARENTS	0.001	-0.112
BELIKEFRIENDS	-0.007	-0.007
RESPECTOPINIONS	-0.009	-0.126
RELIGION	-0.019	-0.107
CONFORM	-0.105	-0.238 *
RESPECTPOLICE	-0.057	-0.254 *
AROUNDTHELAW	0.054	0.281 **
TRYHARD	-0.037	-0.202
PARTOFSCHOOL	-0.153	0.062
HAPPYSCHOOL	-0.082	0.038
DRINK	-0.044	0.089
BINGEDRINK	-0.104	0.201
ANYINJURIES	-0.062	-0.062
NUMINJURIES	---	---
ANYAUTOACC	-0.013	-0.013
NUMAUTOACC	---	---
ANYVIOLENCE	0.175	---
NUMVIOLENCE	-0.058	---
ANYUNPROTECTSEX	-0.027	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMUSHROOMS	CURRENTECSTASY
NUMUNPROTECTSEX	---	---
ANYSEXASSAULT	-0.030	-0.030
NUMSEXASSAULT	---	---
WHYBDREC	0.056	0.056
WHYBDPAIN	-0.038	-0.038
WHYBDREALITY	-0.046	-0.046
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.023	-0.023
DOESNTBD	---	---
TRIEDTOBACCO	0.079	0.079
TRIEDMARIJ	0.033	0.033
TRIEDCOCAINE	-0.051	0.220 *
TRIEDHEROIN	-0.011	-0.011
TRIEDINHALENTS	0.397 **	-0.028
TRIEDLSD	0.365 **	-0.031
TRIEDMUSHROOM	0.228 *	-0.049
TRIEDECSTASY	0.237 *	0.237 *
TRIEDMETH	-0.033	0.339 **
TRIEDPCP	-0.016	-0.016
TRIEDGHB	-0.016	-0.016
TRIEDPRESCPAIN	0.171	0.171
TRIEDPRESCSTIM	0.237 *	-0.047
CURRENTTOBACCO	0.270 **	-0.042
CURRENTMARIJ	0.154	0.154
CURRENTCOCAINE	-0.011	-0.011
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.011	-0.011
CURRENTMUSHROOM	1.000	-0.011
CURRENTECSTASY	-0.011	1.000
CURRENTMETH	-0.011	1.000 **
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.026	-0.026
CURRENTPRESCSTIM	-0.011	-0.011

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMUSHROOMS	CURRENTECSTASY
WHYDRUGSREC	0.092	0.092
WHYDRUGSPAIN	-0.092	0.341
WHYDRUGSREALITY	-0.075	-0.075
WHYDRUGSSCHOOL	-0.045	-0.045
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.235 *	0.144
NUMCURRENTDRUGS	0.305 **	0.305 **
WHITE	0.087	-0.137
LATINO	-0.051	-0.051
ASIAN	-0.046	0.257 *
OTHER	-0.027	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMETH	CURRENTPCP	CURRENTGHB
SEX	0.127	---	---
AGE	-0.073	---	---
YRSCHOOL	-0.035	---	---
MAJOR	-0.124	---	---
GPA	-0.161	---	---
JOB	-0.171	---	---
LIVECAMPUS	-0.033	---	---
INVOLVED	-0.079	---	---
INVOLVEDCLUBS	---	---	---
INVOLVEDSPORTS	---	---	---
INVOLVEDFRATSOR	---	---	---
INVOLVEDWORK	---	---	---
GOODGRADES	-0.287 **	---	---
TEACHERSEXPECT	-0.179	---	---
BELIKEPARENTS	-0.046	---	---
SHAREWITHPARENTS	-0.196	---	---
CLOSEPARENTS	-0.112	---	---
BELIKEFRIENDS	-0.007	---	---
RESPECTOPINIONS	-0.126	---	---
RELIGION	-0.107	---	---
CONFORM	-0.238 *	---	---
RESPECTPOLICE	-0.254 *	---	---
AROUNDTHELAW	0.281 **	---	---
TRYHARD	-0.202	---	---
PARTOFSCHOOL	0.062	---	---
HAPPYSCHOOL	0.038	---	---
DRINK	0.089	---	---
BINGEDRINK	0.201	---	---
ANYINJURIES	-0.062	---	---
NUMINJURIES	---	---	---
ANYAUTOACC	-0.013	---	---
NUMAUTOACC	---	---	---
ANYVIOLENCE	---	---	---
NUMVIOLENCE	---	---	---
ANYUNPROTECTSEX	-0.027	---	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMETH	CURRENTPCP	CURRENTGHB
NUMUNPROTECTSEX	---	---	---
ANYSEXASSAULT	-0.030	---	---
NUMSEXASSAULT	---	---	---
WHYBDREC	0.056	---	---
WHYBDPAIN	-0.038	---	---
WHYBDREALITY	-0.046	---	---
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.023	---	---
DOESNTBD	---	---	---
TRIEDTOBACCO	0.079	---	---
TRIEDMARIJ	0.033	---	---
TRIEDCOCAINE	0.220 *	---	---
TRIEDHEROIN	-0.011	---	---
TRIEDINHALENTS	-0.028	---	---
TRIEDLSD	-0.031	---	---
TRIEDMUSHROOM	-0.049	---	---
TRIEDECSTASY	0.237 *	---	---
TRIEDMETH	0.339 **	---	---
TRIEDPCP	-0.016	---	---
TRIEDGHB	-0.016	---	---
TRIEDPRESCPAIN	0.171	---	---
TRIEDPRESCSTIM	-0.047	---	---
CURRENTTOBACCO	-0.042	---	---
CURRENTMARIJ	0.154	---	---
CURRENTCOCAINE	-0.011	---	---
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	-0.011	---	---
CURRENTMUSHROOM	-0.011	---	---
CURRENTECSTASY	1.000 **	---	---
CURRENTMETH	1.000	---	---
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	-0.026	---	---
CURRENTPRESCSTIM	-0.011	---	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTMETH	CURRENTPCP	CURRENTGHB
WHYDRUGSREC	0.092	---	---
WHYDRUGSPAIN	0.341	---	---
WHYDRUGSREALITY	-0.075	---	---
WHYDRUGSSCHOOL	-0.045	---	---
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.144	---	---
NUMCURRENTDRUGS	0.305 **	---	---
WHITE	-0.137	---	---
LATINO	-0.051	---	---
ASIAN	0.257 *	---	---
OTHER	-0.027	---	---

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTPRESCPAIN	CURRENTPRESCSTIM
SEX	0.093	-0.089
AGE	0.121	-0.073
YRSCHOOL	0.126	-0.148
MAJOR	-0.247 *	0.026
GPA	-0.118	-0.047
JOB	0.150	0.066
LIVECAMPUS	-0.076	-0.033
INVOLVED	-0.079	0.143
INVOLVEDCLUBS	0.169	-0.191
INVOLVEDSPORTS	-0.095	-0.095
INVOLVEDFRATSOR	0.204	0.204
INVOLVEDWORK	-0.068	-0.068
GOODGRADES	-0.060	0.068
TEACHERSEXPECT	-0.052	-0.023
BELIKEPARENTS	0.003	-0.046
SHAREWITHPARENTS	-0.012	-0.037
CLOSEPARENTS	0.003	0.001
BELIKEFRIENDS	-0.015	-0.007
RESPECTOPINIONS	0.139	-0.009
RELIGION	-0.043	0.070
CONFORM	0.186	0.028
RESPECTPOLICE	-0.130	-0.057
AROUNDTHELAW	0.123	0.054
TRYHARD	-0.161	-0.037
PARTOFSCHOOL	-0.104	0.062
HAPPYSCHOOL	-0.078	-0.082
DRINK	0.021	-0.044
BINGEDRINK	0.064	0.150
ANYINJURIES	0.112	-0.062
NUMINJURIES	-0.194	---
ANYAUTOACC	-0.030	-0.013
NUMAUTOACC	---	---
ANYVIOLENCE	0.056	-0.076
NUMVIOLENCE	-0.084	---
ANYUNPROTECTSEX	0.428 **	0.040

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTPRESCPAIN	CURRENTPRESCSTIM
NUMUNPROTECTSEX	0.681 **	-0.063
ANYSEXASSAULT	-0.062	-0.030
NUMSEXASSAULT	-0.434	---
WHYBDREC	-0.063	0.056
WHYBDPAIN	-0.078	-0.038
WHYBDREALITY	-0.094	-0.046
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.048	-0.023
DOESNTBD	---	---
TRIEDTOBACCO	0.079	0.079
TRIEDMARIJ	-0.095	0.033
TRIEDCOCAINE	0.131	0.220 *
TRIEDHEROIN	-0.026	-0.011
TRIEDINHALENTS	-0.065	-0.028
TRIEDLSD	-0.070	-0.031
TRIEDMUSHROOM	0.014	-0.049
TRIEDECSTASY	-0.108	-0.047
TRIEDMETH	-0.076	-0.033
TRIEDPCP	-0.037	-0.016
TRIEDGHB	-0.037	-0.016
TRIEDPRESCPAIN	0.391 **	-0.066
TRIEDPRESCSTIM	0.022	0.237 *
CURRENTTOBACCO	0.048	-0.042
CURRENTMARIJ	0.248 *	0.154
CURRENTCOCAINE	-0.026	-0.011
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.026	-0.011
CURRENTMUSHROOM	-0.026	-0.011
CURRENTECSTASY	-0.026	-0.011
CURRENTMETH	-0.026	-0.011
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	1.000	-0.026
CURRENTPRESCSTIM	-0.026	1.000

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	CURRENTPRESCPAIN	CURRENTPRESCSTIM
WHYDRUGSREC	-0.194	-0.341
WHYDRUGSPAIN	0.401 *	-0.092
WHYDRUGSREALITY	0.057	0.418 *
WHYDRUGSSCHOOL	0.247	-0.045
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.060	0.053
NUMCURRENTDRUGS	0.409 **	0.179
WHITE	-0.279 **	0.087
LATINO	0.189	-0.051
ASIAN	0.214 *	-0.046
OTHER	-0.056	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREC	WHYDRUGSPAIN
SEX	0.058	0.090
AGE	-0.073	0.062
YRSCHOOL	-0.246	0.326
MAJOR	-0.156	-0.070
GPA	0.271	-0.304
JOB	-0.151	-0.015
LIVECAMPUS	0.132	-0.132
INVOLVED	0.052	-0.210
INVOLVEDCLUBS	-0.043	0.346
INVOLVEDSPORTS	0.149	-0.100
INVOLVEDFRATSOR	0.134	-0.418
INVOLVEDWORK	0.149	-0.100
GOODGRADES	0.009	-0.392 *
TEACHERSEXPECT	-0.136	0.041
BELIKEPARENTS	0.089	-0.003
SHAREWITHPARENTS	0.140	-0.140
CLOSEPARENTS	0.091	0.000
BELIKEFRIENDS	0.009	-0.009
RESPECTOPINIONS	-0.099	0.099
RELIGION	-0.221	-0.096
CONFORM	-0.256	-0.029
RESPECTPOLICE	0.084	-0.211
AROUNDTHELAW	-0.085	0.245
TRYHARD	0.086	-0.086
PARTOFSCHOOL	0.014	-0.169
HAPPYSCHOOL	0.299	-0.136
DRINK	0.355 *	-0.161
BINGEDRINK	0.278	-0.025
ANYINJURIES	0.154	-0.154
NUMINJURIES	0.312	-0.312
ANYAUTOACC	0.099	-0.099
NUMAUTOACC	---	---
ANYVIOLENCE	0.093	-0.035
NUMVIOLENCE	0.167	-0.167
ANYUNPROTECTSEX	0.107	0.303

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREC	WHYDRUGSPAIN
NUMUNPROTECTSEX	0.147	-0.150
ANYSEXASSAULT	-0.084	0.116
NUMSEXASSAULT	0.293	-0.845
WHYBDREC	0.343	-0.609 **
WHYBDPAIN	-0.595 **	0.595 **
WHYBDREALITY	-0.233	0.233
WHYBDSCHOOL	---	---
WHYBDOTHER	---	---
DOESNTBD	---	---
TRIEDTOBACCO	0.015	-0.015
TRIEDMARIJ	0.179	-0.179
TRIEDCOCAINE	0.020	0.142
TRIEDHEROIN	---	---
TRIEDINHALENTS	-0.094	0.094
TRIEDLSD	0.164	-0.164
TRIEDMUSHROOM	-0.052	0.052
TRIEDECSTASY	0.121	0.052
TRIEDMETH	0.219	-0.013
TRIEDPCP	---	---
TRIEDGHB	---	---
TRIEDPRESCPAIN	0.058	0.238
TRIEDPRESCSTIM	-0.015	-0.151
CURRENTTOBACCO	0.367 *	-0.367 *
CURRENTMARIJ	-0.052	0.052
CURRENTCOCAINE	0.092	-0.092
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	0.092	-0.092
CURRENTMUSHROOM	0.092	-0.092
CURRENTECSTASY	0.092	0.341
CURRENTMETH	0.092	0.341
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	-0.194	0.401 *
CURRENTPRESCSTIM	-0.341	-0.092

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREC	WHYDRUGSPAIN
WHYDRUGSREC	1.000	-0.637 **
WHYDRUGSPAIN	-0.637 **	1.000
WHYDRUGSREALITY	-0.401 *	0.194
WHYDRUGSSCHOOL	0.132	0.179
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.085	0.036
NUMCURRENTDRUGS	0.139	0.060
WHITE	0.394 *	-0.552 **
LATINO	0.079	0.118
ASIAN	-0.315	0.512 **
OTHER	-0.342	0.079

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREALITY	WHYDRUGSSCHOOL
SEX	-0.072	0.008
AGE	-0.042	-0.004
YRSCHOOL	0.240	0.199
MAJOR	0.228	0.052
GPA	0.021	0.130
JOB	0.069	-0.130
LIVECAMPUS	-0.107	-0.065
INVOLVED	-0.120	-0.180
INVOLVEDCLUBS	-0.289	---
INVOLVEDSPORTS	-0.100	---
INVOLVEDFRATSOR	0.239	---
INVOLVEDWORK	-0.100	---
GOODGRADES	0.130	-0.079
TEACHERSEXPECT	0.251	0.183
BELIKEPARENTS	-0.186	0.126
SHAREWITHPARENTS	0.137	0.309
CLOSEPARENTS	0.000	0.156
BELIKEFRIENDS	-0.128	-0.077
RESPECTOPINIONS	0.150	0.126
RELIGION	0.167	-0.144
CONFORM	0.240	0.079
RESPECTPOLICE	-0.120	-0.072
AROUNDTHELAW	0.161	0.179
TRYHARD	0.046	0.132
PARTOFSCHOOL	0.064	-0.121
HAPPYSCHOOL	-0.124	0.093
DRINK	-0.037	0.111
BINGEDRINK	0.080	0.124
ANYINJURIES	-0.067	-0.161
NUMINJURIES	-0.312	---
ANYAUTOACC	-0.080	-0.048
NUMAUTOACC	---	---
ANYVIOLENCE	-0.155	-0.203
NUMVIOLENCE	-0.117	---
ANYUNPROTECTSEX	0.432 *	0.668 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREALITY	WHYDRUGSSCHOOL
NUMUNPROTECTSEX	-0.195	-0.105
ANYSEXASSAULT	0.199	-0.060
NUMSEXASSAULT	-0.845	-0.683
WHYBDREC	-0.417 *	-0.471 *
WHYBDPAIN	0.283	-0.053
WHYBDREALITY	0.283	-0.053
WHYBDSCHOOL	---	---
WHYBDOTHER	---	---
DOESNTBD	---	---
TRIEDTOBACCO	0.259	0.156
TRIEDMARIJ	0.107	0.065
TRIEDCOCAINE	0.273	0.109
TRIEDHEROIN	---	---
TRIEDINHALENTS	0.160	-0.080
TRIEDLSD	-0.134	-0.080
TRIEDMUSHROOM	-0.042	-0.144
TRIEDECSTASY	-0.042	-0.144
TRIEDMETH	-0.179	-0.107
TRIEDPCP	---	---
TRIEDGHB	---	---
TRIEDPRESCPAIN	0.097	0.262
TRIEDPRESCSTIM	-0.069	-0.156
CURRENTTOBACCO	-0.299	-0.180
CURRENTMARIJ	0.199	0.120
CURRENTCOCAINE	-0.075	-0.045
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.075	-0.045
CURRENTMUSHROOM	-0.075	-0.045
CURRENTECSTASY	-0.075	-0.045
CURRENTMETH	-0.075	-0.045
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.057	0.247
CURRENTPRESCSTIM	0.418 *	-0.045

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSREALITY	WHYDRUGSSCHOOL
WHYDRUGSREC	-0.401 *	0.132
WHYDRUGSPAIN	0.194	0.179
WHYDRUGSREALITY	1.000	0.601 **
WHYDRUGSSCHOOL	0.601 **	1.000
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	0.078	-0.005
NUMCURRENTDRUGS	-0.048	0.005
WHITE	-0.089	0.000
LATINO	0.224	0.200
ASIAN	-0.224	-0.134
OTHER	0.149	-0.089

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSOTHER	NUMDRUGSTRIED
SEX	---	0.152 *
AGE	---	0.241 **
YRSCHOOL	---	0.103
MAJOR	---	-0.059
GPA	---	-0.089
JOB	---	0.023
LIVECAMPUS	---	-0.061
INVOLVED	---	-0.108
INVOLVEDCLUBS	---	-0.143
INVOLVEDSPORTS	---	-0.029
INVOLVEDFRATSOR	---	0.172
INVOLVEDWORK	---	-0.077
GOODGRADES	---	-0.021
TEACHERSEXPECT	---	-0.144
BELIKEPARENTS	---	-0.028
SHAREWITHPARENTS	---	-0.048
CLOSEPARENTS	---	-0.019
BELIKEFRIENDS	---	-0.020
RESPECTOPINIONS	---	-0.029
RELIGION	---	-0.142
CONFORM	---	-0.167 *
RESPECTPOLICE	---	-0.258 **
AROUNDTHELAW	---	0.229 **
TRYHARD	---	-0.065
PARTOFSCHOOL	---	-0.239 **
HAPPYSCHOOL	---	-0.064
DRINK	---	0.311 **
BINGEDRINK	---	0.336 **
ANYINJURIES	---	0.182 *
NUMINJURIES	---	0.355
ANYAUTOACC	---	0.042
NUMAUTOACC	---	---
ANYVIOLENCE	---	0.299 **
NUMVIOLENCE	---	-0.052
ANYUNPROTECTSEX	---	0.124

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSOTHER	NUMDRUGSTRIED
NUMUNPROTECTSEX	---	0.125
ANYSEXASSAULT	---	0.275 **
NUMSEXASSAULT	---	-0.153
WHYBDREC	---	-0.055
WHYBDPAIN	---	0.044
WHYBDREALITY	---	0.080
WHYBDSCHOOL	---	---
WHYBDOTHER	---	0.093
DOESNTBD	---	---
TRIEDTOBACCO	---	0.678 **
TRIEDMARIJ	---	0.629 **
TRIEDCOCAINE	---	0.707 **
TRIEDHEROIN	---	0.398 **
TRIEDINHALENTS	---	0.587 **
TRIEDLSD	---	0.672 **
TRIEDMUSHROOM	---	0.734 **
TRIEDECSTASY	---	0.659 **
TRIEDMETH	---	0.649 **
TRIEDPCP	---	0.344 **
TRIEDGHB	---	0.466 **
TRIEDPRESCPAIN	---	0.724 **
TRIEDPRESCSTIM	---	0.587 **
CURRENTTOBACCO	---	0.352 **
CURRENTMARIJ	---	0.215 *
CURRENTCOCAINE	---	0.008
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	---	0.326 **
CURRENTMUSHROOM	---	0.235 *
CURRENTECSTASY	---	0.144
CURRENTMETH	---	0.144
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	---	0.053
CURRENTPRESCSTIM	---	0.060

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	WHYDRUGSOTHER	NUMDRUGSTRIED
WHYDRUGSREC	---	0.085
WHYDRUGSPAIN	---	0.036
WHYDRUGSREALITY	---	0.078
WHYDRUGSSCHOOL	---	-0.005
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	---	1.000
NUMCURRENTDRUGS	---	0.391 **
WHITE	---	0.301 **
LATINO	---	-0.038
ASIAN	---	-0.138
OTHER	---	-0.219 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMCURRENTDRUGS	WHITE	LATINO
SEX	0.151	0.003	-0.056
AGE	-0.036	0.034	0.059
YRSCHOOL	-0.073	-0.019	0.132
MAJOR	-0.043	0.083	-0.114
GPA	-0.184	0.212 **	-0.177 *
JOB	-0.016	0.065	0.097
LIVECAMPUS	-0.029	0.117	-0.060
INVOLVED	-0.069	0.153 *	-0.139
INVOLVEDCLUBS	-0.153	-0.274 *	-0.010
INVOLVEDSPORTS	-0.309	0.185	-0.151
INVOLVEDFRATSOR	0.411 *	-0.055	0.184
INVOLVEDWORK	-0.154	-0.157	0.101
GOODGRADES	-0.147	0.068	-0.069
TEACHERSEXPECT	-0.205	0.032	0.004
BELIKEPARENTS	0.084	0.157 *	-0.150 *
SHAREWITHPARENTS	-0.121	0.280 **	0.087
CLOSEPARENTS	-0.006	0.178 *	0.098
BELIKEFRIENDS	0.145	0.209 **	-0.334 **
RESPECTOPINIONS	0.086	0.102	-0.183 *
RELIGION	-0.099	-0.217 **	0.191 *
CONFORM	-0.067	-0.118	0.050
RESPECTPOLICE	-0.332 **	0.042	0.009
AROUNDTHELAW	0.305 **	-0.063	-0.015
TRYHARD	-0.094	0.142	0.070
PARTOFSCHOOL	-0.033	-0.020	-0.020
HAPPYSCHOOL	-0.027	0.054	0.028
DRINK	0.301 **	0.185 *	-0.001
BINGEDRINK	0.348 **	0.145	-0.011
ANYINJURIES	0.195	0.189 *	0.101
NUMINJURIES	-0.147	-0.057	0.144
ANYAUTOACC	0.309 **	-0.097	0.227 *
NUMAUTOACC	---	---	---
ANYVIOLENCE	0.216	0.088	0.137
NUMVIOLENCE	0.031	0.163	-0.114
ANYUNPROTECTSEX	0.219	-0.058	0.237 **

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMCURRENTDRUGS	WHITE	LATINO
NUMUNPROTECTSEX	0.514 *	0.289	-0.285
ANYSEXASSAULT	0.118	0.023	0.158
NUMSEXASSAULT	0.189	-0.243	0.243
WHYBDREC	0.114	0.092	-0.245 *
WHYBDPAIN	-0.109	-0.194	0.200
WHYBDREALITY	-0.175	-0.134	0.234 *
WHYBDSCHOOL	---	---	---
WHYBDOTHER	-0.145	0.094	-0.043
DOESNTBD	---	---	---
TRIEDTOBACCO	0.206	0.283 **	-0.067
TRIEDMARIJ	0.121	0.310 **	0.019
TRIEDCOCAINE	0.410 **	0.089	0.088
TRIEDHEROIN	-0.073	0.083	-0.034
TRIEDINHALENTS	0.240 *	0.143	0.002
TRIEDLSD	0.195	0.224 **	-0.090
TRIEDMUSHROOM	0.198	0.243 **	-0.092
TRIEDECSTASY	0.224 *	0.089	-0.024
TRIEDMETH	0.249 *	0.106	-0.090
TRIEDPCP	-0.103	0.009	0.099
TRIEDGHB	-0.103	0.118	-0.048
TRIEDPRESCPAIN	0.458 **	0.154 *	0.059
TRIEDPRESCSTIM	0.295 **	0.254 **	-0.135
CURRENTTOBACCO	0.584 **	0.091	-0.087
CURRENTMARIJ	0.797 **	-0.152	0.095
CURRENTCOCAINE	0.305 **	-0.137	0.236 *
CURRENTHEROIN	---	---	---
CURRENTINHALENTS	---	---	---
CURRENTLSD	0.305 **	0.087	-0.051
CURRENTMUSHROOM	0.305 **	0.087	-0.051
CURRENTECSTASY	0.305 **	-0.137	-0.051
CURRENTMETH	0.305 **	-0.137	-0.051
CURRENTPCP	---	---	---
CURRENTGHB	---	---	---
CURRENTPRESCPAIN	0.409 **	-0.279 **	0.189
CURRENTPRESCSTIM	0.179	0.087	-0.051

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	NUMCURRENTDRUGS	WHITE	LATINO
WHYDRUGSREC	0.139	0.394 *	0.079
WHYDRUGSPAIN	0.060	-0.552 **	0.118
WHYDRUGSREALITY	-0.048	-0.089	0.224
WHYDRUGSSCHOOL	0.005	0.000	0.200
WHYDRUGSOTHER	---	---	---
NUMDRUGSTRIED	0.391 **	0.301 **	-0.038
NUMCURRENTDRUGS	1.000	-0.140	0.064
WHITE	-0.140	1.000	-0.394 **
LATINO	0.064	-0.394 **	1.000
ASIAN	0.072	-0.529 **	-0.246 **
OTHER	0.075	-0.368 **	-0.171 *

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ASIAN	OTHER
SEX	0.009	0.044
AGE	-0.001	-0.109
YRSCHOOL	-0.031	-0.071
MAJOR	0.027	-0.034
GPA	-0.044	-0.072
JOB	-0.129	-0.034
LIVECAMPUS	-0.089	0.005
INVOLVED	-0.025	-0.044
INVOLVEDCLUBS	0.354 **	-0.034
INVOLVEDSPORTS	-0.177	0.078
INVOLVEDFRATSOR	-0.121	0.087
INVOLVEDWORK	0.079	0.052
GOODGRADES	-0.056	0.043
TEACHERSEXPECT	-0.134	0.117
BELIKEPARENTS	-0.163 *	0.134
SHAREWITHPARENTS	-0.426 **	0.037
CLOSEPARENTS	-0.343 **	0.069
BELIKEFRIENDS	0.051	-0.015
RESPECTOPINIONS	0.035	0.002
RELIGION	-0.088	0.223 **
CONFORM	0.059	0.044
RESPECTPOLICE	-0.068	0.015
AROUNDTHELAW	0.136	-0.062
TRYHARD	-0.199 **	-0.030
PARTOFSCHOOL	-0.003	0.055
HAPPYSCHOOL	-0.083	-0.003
DRINK	-0.137	-0.097
BINGEDRINK	-0.026	-0.185 *
ANYINJURIES	-0.247 **	-0.093
NUMINJURIES	---	-0.167
ANYAUTOACC	-0.047	-0.030
NUMAUTOACC	---	---
ANYVIOLENCE	-0.158	-0.095
NUMVIOLENCE	-0.084	-0.031
ANYUNPROTECTSEX	-0.101	-0.043

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ASIAN	OTHER
NUMUNPROTECTSEX	---	-0.039
ANYSEXASSAULT	-0.108	-0.068
NUMSEXASSAULT	---	---
WHYBDREC	0.009	0.126
WHYBDPAIN	0.133	-0.083
WHYBDREALITY	0.047	-0.107
WHYBDSCHOOL	---	---
WHYBDOTHER	-0.054	-0.036
DOESNTBD	---	---
TRIEDTOBACCO	-0.076	-0.239 **
TRIEDMARIJ	-0.193 *	-0.226 **
TRIEDCOCAINE	-0.075	-0.127
TRIEDHEROIN	-0.042	-0.031
TRIEDINHALENTS	-0.106	-0.078
TRIEDLSD	-0.114	-0.084
TRIEDMUSHROOM	-0.093	-0.136
TRIEDECSTASY	0.021	-0.127
TRIEDMETH	0.024	-0.084
TRIEDPCP	-0.060	-0.044
TRIEDGHB	-0.060	-0.044
TRIEDPRESCPAIN	-0.098	-0.161 *
TRIEDPRESCSTIM	-0.123	-0.068
CURRENTTOBACCO	0.031	-0.096
CURRENTMARIJ	-0.069	0.268 *
CURRENTCOCAINE	-0.046	-0.027
CURRENTHEROIN	---	---
CURRENTINHALENTS	---	---
CURRENTLSD	-0.046	-0.027
CURRENTMUSHROOM	-0.046	-0.027
CURRENTECSTASY	0.257 *	-0.027
CURRENTMETH	0.257 *	-0.027
CURRENTPCP	---	---
CURRENTGHB	---	---
CURRENTPRESCPAIN	0.214 *	-0.056
CURRENTPRESCSTIM	-0.046	-0.027

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.

Continued.

Appendix C

Correlation Matrix for all Variables (Continued)

Variables	ASIAN	OTHER
WHYDRUGSREC	-0.315	-0.342
WHYDRUGSPAIN	0.512 **	0.079
WHYDRUGSREALITY	-0.224	0.149
WHYDRUGSSCHOOL	-0.134	-0.089
WHYDRUGSOTHER	---	---
NUMDRUGSTRIED	-0.138	-0.219 **
NUMCURRENTDRUGS	0.072	0.075
WHITE	-0.529 **	-0.368 **
LATINO	-0.246 **	-0.171 *
ASIAN	1.000	-0.230 **
OTHER	-0.230 **	1.000

Note. 2 – tailed significant: * $p < 0.05$, ** $p < 0.01$.