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This study used both cross-sectional and longitudinal methods to examine the role

of situational drinking in the relationship between a woman's general drinking behaviors

and her sexual experiences. Women's drinking behaviors and sexual experiences were

assessed following both the first and second years of college ($N = 1184$). Mediational

analyses indicated that cross-sectionally, situational drinking played a role in the

relationship between general drinking behaviors and sexual victimization experiences.

Longitudinally, however, regression analyses revealed that there was not a reciprocal

relationship between drinking behaviors and victimization experiences. Instead, earlier

drinking behaviors were most predictive of later drinking behaviors and earlier

victimization experiences were most predictive of later victimization experiences;

situational drinking emerged as the only other significant predictor within these

relationships. These findings suggest that situational drinking needs to be more closely

examined as an important factor within the relationship between alcohol and sexual

victimization.

ALCOHOL AND SEXUAL ASSAULT: A LONGITUDINAL ANALYSIS

by

Ashlyn Shay Gollehon

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Approved by

_____
Committee Chair

APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair   _____
                                      Jacquelyn W. White

Committee Members   _____
                                      Matthew Paradise

                                      _____
                                      Paul J. Silvia

_____20 February 2006_____
Date of Acceptance by Committee

_____20 February 2006_____
Date of Final Oral Examination

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CHAPTER I

INTRODUCTION

Sexual assault is a serious concern among women 18 to 24 years old. Over 50% of young women in this age group have been sexually victimized in some manner, with approximately one in four women having been victims of a sexual assault that meets the legal definition of rape (Abbey et al., 2002; Humphrey & White, 2000; Koss, Gidycz, & Wisniewski, 1987). Although previous research has examined the relationships between general alcohol usage and sexual assault, fewer studies have focused on the usage of alcohol at the time of a sexual assault as a variable in this relationship. In general, women who have experienced either rape or sexual coercion are more likely than non-victims to heavily consume alcohol on a regular basis (Marx, Nichols-Anderson, Messman-Moore, Miranda, & Porter, 2000; Testa & Dermen, 1999; Ullman & Breklin, 2000). In fact, some research suggests that one important characteristic that distinguishes victims of sexual assault from non-victims is heavy alcohol consumption (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004).

There is substantial research examining the distal relationship between alcohol and sexual assault. Women reporting at least one instance of sexual victimization consume more alcoholic drinks in a given week than women not reporting any sexual victimization experiences (Testa & Livingston, 1999). Although much of the research in this area uses a convenience sample of college students, research using community

samples contributes to knowledge regarding the relationship between alcohol and interpersonal violence. White and Chen (2001) used a 20-year longitudinal design to examine intimate partner violence (IPV) and alcohol consumption in a community sample. Specifically, they examined these relationships in women who were either married or in cohabitating relationships. After controlling for childhood abuse, problem drinking by the partner was related to victimization for both men and women, and women's own drinking also contributed to their victimization. Interpersonal violence has also been linked to alcohol consumption through such mediators as relationship satisfaction and the victim's relationship to the perpetrator (Ullman, Karabotsos, & Koss, 1999; Testa, Livingston, & Leonard, 2003). However, Ullman and Breklin (2000) found that neither a victim's drinking history nor her relationship to the perpetrator had any bearing on victim injury; rather victim's consumption of alcohol immediately prior to the assault was marginally associated with lesser victim injury or severity of the assault, but that perpetrator's alcohol consumption immediately prior to the assault was associated with greater injury. These authors also found a strong relationship between the victim's drinking history and her drinking immediately prior to the assault. Unfortunately, this research did not examine the relationship between drinking history, drinking within the assault situation, and later alcohol consumption or victimization. In other words, these authors were not able to examine these relationships longitudinally.

The Ullman and Breklin (2000) study draws attention to the role of consuming alcohol immediately prior to the assault. A number of other studies have also examined the effect of alcohol within the assault situation. It is estimated that between 53 and 70%

of sexual assaults involve the use of alcohol by either the perpetrator or the victim (Abbey, Ross, McDuffie, & McAuslan, 1996; Muehlenhard & Linton, 1987; Testa & Livingston, 1999)—a number particularly disturbing in light of the amount of alcohol the average college student consumes: between 8 and 13 drinks per week (Lewis & Neighbors, 2004). The research in this area has found interactions between both victim's and perpetrator's alcohol consumption and situational factors. Specifically, both the victim and the perpetrator are more likely to be drinking if they do not know one another very well or if they are in a more social situation such as a party or bar, as opposed to a home (Abbey et al., 1996). Also, alcohol use by either the victim or perpetrator within the context of the sexual assault has been linked to more severe physical outcomes for the victim following the assault (Ullman et al., 1999). Further, dates involving a sexual assault are distinguished from worst dates by a number of factors including an isolated setting, misperception of sexual intent, and alcohol consumption by both the perpetrator and the victim (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001).

Research on the relationship between alcohol and sexual assault has produced numerous explanations for the way in which alcohol influences women and men and the interactions between them. These explanations focus on expectancies and judgments by both women and men about the effects of alcohol, misperceptions of intent by both women and men, and justification of aggressive behavior by men who have been drinking (Abbey, 1991; Abbey et al., 1996; Abbey et al., 2002; Norris & Cubbins, 1992). Additionally, alcohol may have detrimental effects on women's abilities to judge a situation (Abbey et al., 2002) and offer successful resistance to men's persistence

(Abbey, 1991; Testa & Livingston, 1999). Women who have been consuming alcohol are at greater risk to misinterpret cues given by the perpetrator prior to an assault, and can even miss these cues completely. Also, the motor and physical skills of women who have been drinking are greatly impaired (Abbey et al., 2002), damaging their ability to run away from, fight with, or scream at their attackers—all strategies that have proven successful in fending off would-be perpetrators (Abbey, 1991). Fifty-six percent of women who had been drinking when they were victimized believed that the alcohol impaired their own judgments and abilities to remove themselves from a potentially dangerous situation (Testa & Livingston, 1999). Also, over 50% of women who had consumed alcohol prior to their victimization believed their alcohol consumption affected the perpetrators' behavior, and 23% believed the perpetrator targeted them specifically because of their intoxication (Testa & Livingston, 1999). From the opposite perspective, when perpetrators consumed alcohol within the context of the sexual assault, they attributed most of the responsibility for the attack to the drinking by both themselves and the victims (Abbey, McAuslan, et al., 2001).

Differing Theories

Despite a great deal of research on alcohol and sexual assault, some very fundamental questions about the relationship between these variables are yet to be answered (Testa & Parks, 1996; Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001). There are three competing theories about the relationship between alcohol use and sexual victimization. One theory holds that victimization experiences lead to increased alcohol usage, presumably as a method of coping with the trauma (Kilpatrick, Acierno, Resnick,

Saunders, & Best, 1997). A competing theory suggests that alcohol usage leads to increased risk of sexual victimization because alcohol may lower a woman's inhibitions and defenses and increase perpetrator's perceptions of women's availability as a safe or more sexually available target (Richardson & Hammock, 1991; Testa & Livingston, 1999). A third theory proposes a reciprocal relationship between the two variables, in which increased alcohol usage leads to increased risk of sexual victimization, which leads to more alcohol usage, continuing in a vicious cycle (Kilpatrick et al., 1997).

One of the most comprehensive examinations of these competing viewpoints was done by Kilpatrick et al. (1997) using a longitudinal dataset. They examined women's drinking over the prior year as well as lifetime history of sexual assault. Although they had hypothesized a reciprocal relationship between sexual victimization and both alcohol and drug use, their findings were mixed. They found that drug use or a combination of alcohol and drug use over the prior year increased the odds of an assault. Also, a new assault within the prior year increased the odds of drug or alcohol use and abuse. Those women who used drugs and were also previously victimized were at highest risk for a new assault. They hypothesized that the mutual relationship they found between drug use and victimization was due to the deviant subculture associated with the procurement of illegal drugs. Although they did not find a reciprocal relationship between alcohol and victimization they did not examine alcohol use on a continuum of intoxication. Instead, they indicated only whether the woman was an alcohol abuser—with abuse defined as the inability to discontinue alcohol use despite its having caused multiple legal, personal, and

social problems within the previous year—or not. Also, they did not assess whether alcohol or drugs had been consumed at the actual time of the assault.

In a similar vein, Testa and Livingston (2000), using a longitudinal design, found a reciprocal relationship between alcohol problems and perceived vulnerability to sexual assault. This research demonstrated a strong path between the combined predictors of a woman's sexual assault experiences and alcohol problems and her perceived vulnerability to later assault. And at later assessment, women's perceived vulnerabilities to later assault were reasonably accurate. Alcohol consumption alone, however, did not predict a woman's later sexual assault experiences, nor did her assault experiences alone predict her later alcohol consumption.

Contextual Use of Alcohol

One of the weaknesses of this area of research is the lack of what authors have termed "event-level data" (Testa, et al., 2003, p. 1660) regarding substance use and interpersonal violence. Only a few studies have focused on aspects of the situation immediately preceding the sexual assault. An exception to this trend is found in the research of Harrington and Leitenberg (1994), who examined the circumstances immediately preceding sexual assaults among a group of college women. They found that over half the women they surveyed who had been involved in physically forceful sexual aggression reported being at least somewhat drunk at the time of the incident. Further, the women who reported being at least somewhat drunk were also significantly more likely to engage in higher levels of consensual sexual contact (i.e., oral sex) immediately prior to the assault than were women who were not drinking immediately prior to the incident.

It is not clear, however, how the prior sexual contact and situational drinking are related to one other and to the assault.

The research regarding the relationship between alcohol consumption and sexual assault is mixed; despite a plethora of research on the two variables, the mechanisms by which they affect one another are still unclear. Specifically, almost no research has been done with an attempt to integrate information on both general alcohol consumption and consumption in the sexual assault situation and how the interaction between these two variables then affects the likelihood of sexual assault, and vice versa. Two studies in particular have drawn attention to variables within the sexual assault situation (Abbey et al., 1996; Ullman & Breklin, 2000), yet no research has been done to explore the relationship between a woman's general drinking history and these situational factors. Although prior research has examined each of these variables independently, it is important to look at the combined effects of a woman's history of alcohol use and her situational use of alcohol because the consequence of the two may be greater than the sum of the two experiences.

The Present Study

Despite the call within the literature for an examination of both the proximal and distal factors that affect the interaction between sexual assault and alcohol consumption (Abbey et al., 2002; Marx et al., 2000; Ullman et al., 1999), prior research on alcohol and sexual assault has yet to examine both the historical and situational use of alcohol and how their combination affects later victimization. Specifically, there is a need for a longitudinal analysis of the relationship between history of alcohol consumption and

situational consumption of alcohol to determine the extent of a relationship between these two actions and how much each contributes directly to risk of sexual victimization (Abbey et al., 1996; Ullman et al., 1999). Building on the findings of Ullman and Breklin (2000) and applying the framework of routine activities theory, the overall purpose of this study is to longitudinally examine the reciprocal relationship between a woman's history of general alcohol consumption, her victimization status, and her consumption of alcohol within the context of a sexual experience to more clearly explain the relationship between alcohol and sexual assault.

Routine activities theory calls for an examination of not only current behaviors, but also previous habits and experiences to fully understand a phenomenon (Tewksbury & Mustaine, 2001). This perspective posits that current behavior is at least partially the product of past behaviors and experiences. Thus, in the present study, it was proposed that there would be a reciprocal relationship between a woman's general drinking habits and her sexual victimization experiences. That is, prior drinking habits would affect later victimization experiences and prior victimization experiences would influence later drinking habits.

Directional hypotheses predicting victimization. In cross-sectional analyses it was expected that situational drinking would at least partially mediate the relationship between general drinking and victimization at both Times 1 and 2. Longitudinally, it was hypothesized that there would be a reciprocal relationship between general drinking and victimization experiences. Specifically, there would be no direct relationship between general drinking at Time 1 and victimization status at Time 2; rather, it was expected that

victimization at Time 2 would be a joint function of prior victimization as well as prior and current general drinking habits. Situational drinking at Time 1 would affect later victimization through its influence on victimization status at Time 1, and situational drinking at Time 2 would directly influence victimization status at Time 2 through its role as a mediator of the relationship between general drinking habits and victimization at Time 2.

Directional hypotheses predicting alcohol use. It was predicted that the cross-sectional relationship between victimization and general drinking would be at least partially mediated by situational drinking at both Time 1 and Time 2. Longitudinally, no direct relationship was expected between victimization status at Time 1 and general drinking habits at Time 2; rather, this relationship was expected to operate through prior general drinking habits as well as prior and more recent sexual victimization experiences. Situational drinking would affect later drinking habits through its influence on general drinking at Time 1 and its mediating role in the relationship between victimization experiences and general drinking habits at Time 2. Based on these predictions, situational drinking would have an effect on both victimization and general drinking habits at Time 2.

CHAPTER II

METHOD

Participants

The data used in this study came from the second and third waves of a larger longitudinal study of social experiences (see Humphrey & White, 2000). Two incoming classes of women ($N = 1580$) at a medium-sized public university were asked to complete a series of five questionnaires over a five-year period. Participants completed the first set of surveys upon initially entering the university, and the subsequent four sets of data were collected in the spring semester of their freshman, sophomore, junior, and senior years of college. Participants were paid $15 upon the completion of the set of surveys each spring. Attrition rates were comparable to those of many other longitudinal studies, with 47% of participants completing all the surveys; this number is consistent with the percentage of students who remained enrolled in the university over the same time period (55%). Only those women age 18 to 20 when first entering the university were included in the study. The average age of participants was 18.3 years and approximately 93% had never been married. Participants were 25.4% African American, 70.9% Caucasian, and 3.8% other ethnicities.

Procedure

The purpose and method of the study were explained to participants prior to their completion of the first wave of surveys. For follow-up purposes, participants completed

contact sheets with the name and contact information for a person who would know how to reach them the next year, in the event that there were problems contacting the student the next spring. Surveys and contact sheets were assigned code numbers and collected separately to ensure confidentiality. The list associating code numbers and names of participants was kept in a locked safe. Further, a federal Certificate of Confidentiality was obtained from the National Institute of Mental Health to enhance students' confidence that their information was indeed protected.

Data for this study came from the second (Time 1) and third (Time 2) waves of data collection ($N = 1184$). The retention rate for the second wave of these data was 89% and was 84% for wave three. Women's victimization experiences and general drinking habits were examined in light of their prior general alcohol consumption, prior sexual victimization experiences, and situational drinking. Only those women who consistently indicated that they were heterosexual across all five waves of data collection were included in these analyses.

Survey Instrument

General drinking history. Women's general drinking habits were assessed by asking a number of questions about alcohol use. An intoxication index was formed for each wave of data by computing the cross-products of responses to three questions. The specific questions were: How often do you drink alcohol? (with responses ranging from "*never*" to "*more than twice a week*"); On a typical drinking occasion, how many drinks did you consume (a drink means one can of beer, one glass of wine, or one mixed drink)? (ranging from "*one or less*" to "*ten or more*"); In an average month, how many times do

you have five or more drinks in a row? (ranging from "*never*" to "*ten or more times*"). The drinking indices for both the second and third waves of data were reliable (alpha = .90 and .89, respectively).

Sexual victimization experiences. Sexual victimization was assessed using the Sexual Experiences Survey (SES, Koss et al., 1987), which categorizes women's sexual experiences into one of six levels: none, consensual only, unwanted contact, verbal coercion, attempted rape, or rape. These categorizations were based on responses to 11 items that were ordered in terms of severity from consensual experiences only to rape. Participants were categorized according to their most severe experience. They were asked to indicate how many times each of the experiences had happened to them over the prior school year; the new collection period each spring allowed for non-overlapping analysis of victimization experiences.

Situational drinking. The situational drinking measure stemmed from a set of follow-up questions to the SES. Participants were asked to identify the last item on the SES they endorsed. They were asked to think back to that specific experience to answer a set of questions regarding their relationship to the perpetrator and features of the situation. The question regarding situational drinking asked: "Regarding this experience, were you drinking at the time?" Participants could endorse: No; Yes, but I was not intoxicated; Yes, I was somewhat intoxicated; or Yes, I was very intoxicated.

CHAPTER III

RESULTS

Prevalence of Victimization and Situational Drinking, Time 1

Among the 541 women who had at least some type of sexual experience during their first year of college, 269 reported at least one victimization experience (49.7%). Seventy-eight women reported unwanted sexual contact (14.4%), 108 reported being verbally coerced into an unwanted sexual experience (20.0%), 30 women reported being the victims of attempted rape (5.5%), and 53 women reported a rape experience (9.8%). Overall, 25.1% of the women who had some type of sexual experience (both consensual and nonconsensual) during their first year of college were drinking at the time of that experience, with 4.4% indicating that they were "very intoxicated."

A chi-square analysis of situational drinking by type of sexual experience indicated that these two variables were not independent of one another, $\chi^2(12)=51.27$, $p<.001$. Residuals were examined to more fully explore the nature of this interaction. As can be seen in Figure 1, there were many more observed cases of women not drinking alcohol during consensual sexual experiences than would be expected by chance; however, with increasing levels of situational drinking, there were fewer women participating in consensual sex when they are very intoxicated than would be expected by chance.

Those women who were raped showed an opposite pattern. Far fewer women who were raped were not drinking alcohol than would be expected by chance. The percentage of women who experienced unwanted contact, verbal coercion, or attempted rape didn't differ much from predicted values. A greater percentage of women than expected reported that they had been somewhat or very intoxicated.

Prevalence of Victimization and Situational Drinking, Time 2

Following the second year of college, of the 507 women who reported having some sort of sexual experience, 192 women had been sexually victimized (37.9%). Forty-nine women reported unwanted sexual contact (9.7%), 93 women reported a verbal coercion experience (18.3%), 22 women reported being the victims of attempted rape (4.3%), and 28 women had been raped in the previous year (5.5%). Again, 20.8% of the women reporting any type of either consensual or nonconsensual sexual experience during the second year of college were drinking at the time, with 2.8% of those women being "very intoxicated." Eleven (1.2%) women who were victims of rape in their first year of college were revictimized in their second year of college. Overall, 134 (15.1%) of those women who had been victimized in some way in their first year of college were revictimized in some way during their second year of college (see Table 1).

Once again, a chi-square analysis of situational drinking by type of sexual experience indicated that these two variables were not independent of one another, $\chi^2(12)=38.39$, $p<.001$. Residuals were again examined to explore the nature of this interaction. As can be seen in Figure 2, the pattern of the data was very similar to the first year of college, with the largest discrepancies arising in a higher than expected

percentage of women reporting on consensual sexual activities not involving alcohol and a lower than expected percentage of women reporting on a rape experience not involving alcohol.

Cross-Sectional Analyses

  Mediation. The first goal of this research was to examine the relationship between a woman's history of drinking and her victimization status at both Times 1 and 2 to determine what role, if any, her situational drinking played in this relationship. Thus, situational drinking was tested as a mediator of the relationship between a woman's history of alcohol consumption and her sexual victimization experiences. This mediating role was examined following the model presented by Baron and Kenny (1986); Baron and Kenny define a variable as a mediator to the "extent that it accounts for the relationship between the predictor and criterion" (p. 1176). They outline three steps that should be followed to test for mediation: regress the mediator on the independent variable (IV), regress the dependent variable (DV) on the independent variable, and finally regress the dependent variable on both the independent variable and the mediator. Baron and Kenny (1986) note that perfect mediation holds only when the effect of the independent variable completely disappears when the mediator is taken into account; however, they acknowledge that partial mediation, in which the effect of the independent variable is reduced but not eliminated, is often the most realistic result. Following are the analyses testing situational drinking as a mediator of the relationship between general drinking patterns and sexual victimization experiences.

Time 1 History of drinking leading to victimization status. Following Baron and Kenny's (1986) model, the mediator of situational drinking was first regressed on the independent variable of drinking history; a woman's history of drinking was significantly related to her situational drinking, $\beta=.013$, $F(1, 541)=69.85$, $p<.001$. At the second step, a woman's victimization status (DV) was also significantly related to her history of drinking (IV), $\beta=.012$, $F(1, 953)=37.37$, $p<.001$. Finally, when a woman's history of drinking (IV) was regressed on both her victimization status (DV) and her situational drinking (mediator), situational drinking partially mediated the relationship between the IV and DV. Both situational drinking ($\beta=.358$, $p<.001$) and a woman's history of drinking ($\beta=.008$, $p<.006$) were significant predictors of her victimization status, but partial mediation was supported by the decrease in the influence of a woman's drinking history when situational drinking was added to the equation (Baron & Kenny, 1986).

Time 1 Victimization status leading to drinking habits. To examine the reciprocal relationship between a woman's drinking and her victimization experiences, her drinking habits were examined in light of her victimization status and her situational drinking. Following the Baron and Kenny (1986) model, a woman's victimization status (IV) was significantly related to her situational drinking (mediator), $\beta=.158$, $F(1, 544)=39.18$, $p<.001$. Also, her victimization experiences (IV) were a significant predictor of her drinking habits (DV), $\beta=3.07$, $F(1, 953)=37.37$, $p<.001$. Finally, both situational drinking ($\beta=7.98$, $p<.001$) and a woman's victimization status ($\beta=1.81$, $p<.006$) were significant predictors of her drinking habits, but partial mediation was again supported by the

decrease in the influence of a woman's victimization status in the equation when situational drinking was added to the model (Baron & Kenny, 1986).

Time 2 History of drinking leading to victimization status. These two relationships were then examined in the same way with the data collected after the second year of college. As expected, following Baron and Kenny's (1986) first step, a woman's history of drinking (IV) was significantly related to her situational drinking (mediator), $\beta=.012$, $F(1, 503)=69.49$, $p<.001$. At the second step, a woman's victimization status (DV) was also significantly related to her history of drinking (IV), $\beta=.010$, $F(1, 868)=26.55$, $p<.001$. Finally, when a woman's history of drinking (IV) was regressed on both her victimization status (DV) and her situational drinking (mediator), situational drinking partially mediated the relationship between the IV and DV. Both situational drinking ($\beta=.234$, $p<.003$) and a woman's history of drinking ($\beta=.008$, $p<.008$) were significant predictors of her victimization status, but partial mediation was supported by the decrease in the influence of a woman's history of drinking in the equation when situational drinking was included (Baron & Kenny, 1986).

Time 2 Victimization status leading to drinking habits. Reciprocally, a woman's drinking habits were examined in light of her victimization status and her situational drinking. A woman's victimization status (IV) was significantly related to her situational drinking (mediator), $\beta=.107$, $F(1, 508)=17.29$, $p<.001$. Also, her victimization experiences (IV) were a significant predictor of her drinking habits (DV) following the second year of college, $\beta=2.85$, $F(1, 868)=26.55$, $p<.001$. Finally, both situational drinking ($\beta=9.20$, $p<.001$) and a woman's victimization status ($\beta=1.87$, $p<.008$) were

significant predictors of her drinking habits, but partial mediation was once again supported by the decrease in the influence of a woman's victimization status when situational drinking was added to the equation (Baron & Kenny, 1986).

Longitudinal Analyses

The information from both Time 1 and Time 2 were combined to examine the longitudinal relationship between women's drinking habits and their victimization experiences. To examine the reciprocal nature of this relationship, two separate analyses were performed. The first examines the Time 2 outcome of victimization status in light of earlier drinking habits and victimization experiences, as well as situational drinking at Time 2. The second examines the Time 2 outcome of drinking habits in light of earlier drinking and victimization experiences, again including situational drinking at Time 2 as a predictor.

Victimization status at Time 2 as outcome. This analysis was performed to determine if a woman's drinking habits after the first year of college had any impact on her victimization status following her second year of college. Using simple linear regression, a woman's history of drinking at Time 1 was significantly related to her victimization status at Time 2, $\beta=.009$, $F(1, 879)=21.33$, $p<.001$. When her Time 1 victimization experiences, Time 2 drinking habits, and Time 2 situational drinking were included in the equation, however, a woman's history of drinking at Time 1 was no longer a significant predictor of her victimization experiences at Time 2, $\beta=.000$, *ns*. Instead, the relationship appears to be mediated by the other variables in the equation: victimization status at Time 1 ($\beta=.341$, $p<.001$) and situational drinking at Time 2

(β=.230, p<.002). Interestingly, it seems that these two variables are influential only after controlling for earlier drinking history (i.e., at Time 1) as well as drinking history at Time 2 (β=.004, *ns*), $F(4, 500)$=27.18, p<.001.

Drinking habits at Time 2 as an outcome. In a similar fashion, analyses were performed to determine if a woman's victimization status after the first year of college had any impact on her drinking habits following her second year of college. Using simple linear regression, a woman's victimization status Time 1 was significantly related to her drinking habits at Time 2, β=2.387, $F(1, 943)$=23.54, p<.001. Again, however, when her Time 2 victimization experiences, Time 1 drinking habits, and Time 2 situational drinking were included in the equation, a woman's victimization status at Time 1 was no longer a significant predictor of her regular drinking patterns at Time 2, β=.317, *ns*. Instead, after controlling for both her Time 1 and Time 2 victimization experiences (β=.860, *ns*), this relationship appears to be mediated by the other two variables in the equation: history of drinking at Time 1 (β=.526, p<.001) and situational drinking at Time 2 (β=4.43, p<.001), $F(4, 500)$=82.39, p<.001.

CHAPTER IV

DISCUSSION

Results of this study show that situational drinking plays a role in the relationship between a woman's drinking history and her victimization experiences. Specifically, when looking at the relationship from either direction (with victimization as either the predictor or the outcome), situational drinking mediates the relationship between these two variables. This link is important because it begins to address the gap in the literature on both the proximal and distal factors in the relationship between alcohol and sexual assault. Numerous researchers in this field have called for a closer examination of factors such as these (Abbey et al., 2002; Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001; Marx et al., 2000; Testa & Parks, 1996; Ullman et al., 1999). This is one of the first studies to do so by incorporating both general and situational drinking variables in one examination.

Longitudinally, the relationship is complicated. Although the general hypotheses that earlier drinking would not directly predict later victimization and that earlier victimization would not directly predict later drinking were confirmed, the specific variables that were important did differ from what was hypothesized. Results revealed that when looking at Time 2 victimization as the outcome, although earlier (Time 1) drinking history was not a good predictor, neither was concurrent (Time 2) drinking history. Instead, only earlier victimization experiences (Time 1) and situational drinking

at Time 2 were reliable predictors of a woman's victimization experiences after her second year of college. The examination of this reciprocal relationship revealed much of the same pattern. Although victimization status at Time 1 was not a good predictor of drinking pattern at Time 2, neither was concurrent victimization experience (Time 2). Instead, only earlier drinking pattern (Time 1) and concurrent situational drinking (Time 2) were good predictors of drinking habits following the second year of college.

Relationship of Present Findings to Previous Research

These findings suggest more clearly than previous research the nature of the relationship between alcohol and sexual victimization. The results indicate that the most important factors in predicting a woman's risk for victimization are her victimization history and knowing whether or not she was drinking within the sexual situation. In turn, the two best predictors of a woman's general drinking behaviors were her earlier drinking experiences and her situational drinking behaviors, not her earlier victimization experiences as had been hypothesized. These results clearly fit within the framework of routine activities theory—a theory which argues that current behavior is at least partially the product of past behaviors and experiences. Thus, it makes sense that past drinking behaviors would be one of the best predictors of current drinking behaviors and that past victimizations would be one of the best predictors of further victimization experiences. Routine activities theory, however, does not explain why situational drinking was also an important factor in both current drinking and victimization experiences.

What is it exactly about situational drinking that makes it such an important factor in both a woman's drinking behaviors and her risk for sexual assault? There are two

possible answers to this question. Perhaps situational drinking increases a woman's

vulnerability. Her drinking within a sexual situation may lower her inhibitions and her

ability to judge and remove herself from the situation (Abbey et al., 2002). There could

be, however, another explanation for the role of situational drinking. There is a strong

association between the woman's and man's drinking within a sexual situation (Ullman

& Breklin, 2000). In other words, if she is drinking, he is almost certainly drinking as

well. Thus, given what is known about sexually aggressive men's reactions to alcohol

(Abbey, McAuslan, et al., 2001), it is possible that a woman's situational drinking is

simply a marker for the man's drinking and it is actually the man's drinking that is

putting her at risk for sexual assault.

Regarding victimization, it seems that past drinking experiences are not as

important once you know what women are doing situationally. This is antithetical to past

research on the relationship between alcohol and victimization. Much past research,

however, has focused only on women's overall drinking patterns (Abbey et al., 2004;

Testa & Livingston, 1999) or on their status as alcohol abusers (Kilpatrick et al., 1997),

and has not ever focused on their drinking behaviors within the situation. When these two

different drinking behaviors are examined simultaneously, situational drinking emerges

as an important factor when examining both later drinking behaviors and victimization

experiences. There have been mixed findings on the relationship between alcohol and

sexual victimization (Kilpatrick et al., 1997; Richardson & Hammock, 1991; Testa &

Livingston, 1999), with theories positing both one-way and reciprocal relationships. And

there have been studies that have found support for each of these relationships (Kilpatrick

et al., 1997; Richardson & Hammock, 1991; Testa & Livingston, 1999), although no particularly strong findings have emerged.

Essentially, the relationships had become muddled because of all these mixed findings. Perhaps, however, the problem was not in the theories or in the findings, per se. Perhaps research was not focusing on the right type of alcohol consumption. The findings of this study indicate that those general drinking behaviors that have been gauged in prior research are in fact, not the best indicators of later drinking and victimization. These earlier studies were putting the information together in a piecemeal fashion, not being truly longitudinal or truly taking into account the situational drinking variable (Kilpatrick et al., 1997; Richardson & Hammock, 1991; Testa & Livingston, 1999). Thus, when these two elements were brought together in one research design, situational drinking emerged as an important factor in the relationship between alcohol and sexual assault. Support for this notion can be found in the research of Ullman and Breklin (2000) who cross-sectionally examined both types of drinking; they too concluded that situational drinking was a unique factor that deserved further consideration.

These are important issues to consider. This research is only another small step toward the eventual goal of determining how alcohol affects sexual situations to put both women and men at risk for unwanted and dangerous behaviors. In all likelihood, situational drinking works through a combination of both impairing a woman and serving as a marker of a man's consumption. Perhaps there are other pathways to consider.

Thinking about how situational drinking works, however, draws attention to the need to more closely examine the dynamics of the sexual situation. Although much

research has been done examining factors within the sexual assault situation, we are still sorely lacking in our ability to understand the dynamics of this interaction. If for no other reason than to offer women more information on what to look for and how to protect themselves—both key actions in sexual assault prevention efforts—we need to find new ways to examine the variables within this situation. All the research to this point has been retrospective, observational research. Exploring this relationship further will afford us the opportunity to better inform these sexual assault prevention efforts.

While there is no practical—not to mention ethical—way to examine these situations within a laboratory, perhaps there are other methods we could use to better understand how these interactions develop. Experience sampling is one method that offers some possibility. Although experience sampling would still gather retrospective, observational data, it may be able to get at situations that are more recent in peoples' memories. Perhaps with people's fresher memories, we could learn more about the situations and interactions, maybe even learning to ask questions we haven't thought of yet. Although experience sampling isn't going to offer us the complete answer to the way in which situational drinking works, it could give us some new perspectives, and open up this area of research.

Limitations and Future Directions

This study has several strengths and limitations. One strength of the study is its longitudinal methodology. It ventures into a new area in the alcohol and sexual assault literature. No previous studies have examined longitudinally both proximal and distal alcohol variables together in relationship to victimization experiences. This study opens

the area for further exploration. One weakness, however, is this study's reliance on self-report for information about alcohol use in general, but especially alcohol use within a particular situation. The alcohol use itself may contribute to poor memory about the event, or perhaps people only remember the presence of alcohol when they need to explain or find reasons for an unpleasant event (i.e., a sexual assault experience). Asking women in a sober state to recall their behaviors and situational characteristics when they were in an intoxicated state is fraught with possibilities for faulty information.

Another limitation is that these data were examined in a statistically unsophisticated manner. The longitudinal analyses that were done were limited by basic regression equations. The results of these regression analyses, therefore, should be interpreted with caution. Further, the conceptual model proposed here is only one—including very few variables—of many possible models of what is surely a complex relationship. Future studies should use more comprehensive data-analysis methods that allow the entire theoretical model to be examined. Hopefully these more sophisticated analyses will allow more reliable conclusions to be drawn about these intricate relationships. Conceptually, although the overall model (see Figure 3) could not be tested with the statistics used in this study, it is likely that Time 1 drinking is having an impact on Time 2 victimization and vice versa. Future research plans to use more sophisticated statistical procedures (i.e., Structural Equation Modeling or Hierarchical Linear Modeling) to more fully examine these longitudinal relationships. Eventually all 5 waves of data can be used to explore if and how these relationships change over extended periods of time.

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APPENDIX A

TABLE

Table 1

Sexual victimization group Time 1 (first year of college) by sexual victimization group Time 2 (second year of college)

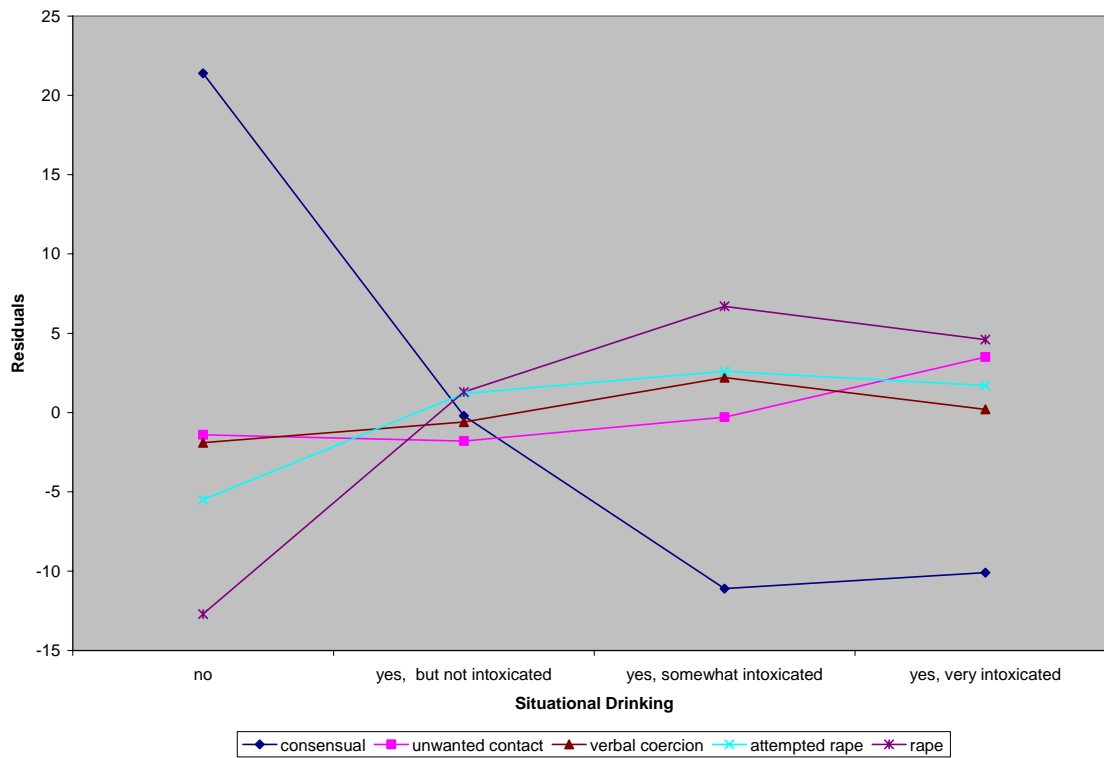| | Time 2 | | | | | |
	No consensual & only consensual	Unwanted contact	Verbal coercion	Attempted rape	Rape	Total
Time 1	*n*	*n*	*n*	*n*	*n*	*n*
No consensual & only consensual	490 (55.4%)	35 (4%)	47 (5.3%)	11 (1.2%)	18 (2%)	601 (67.9%)
Unwanted contact	53 (6%)	14 (1.6%)	12 (1.4%)	2 (.2%)	5 (.6%)	86 (9.7%)
Verbal coercion	56 (6.3%)	14 (1.6%)	33 (3.7%)	4 (.5%)	5 (.6%)	112 (12.7%)
Attempted rape	17 (1.9%)	4 (.5%)	4 (.5%)	5 (.6%)	2 (.2%)	32 (3.6%)
Rape	24 (2.7%)	6 (.7%)	12 (1.4%)	1 (.1%)	11 (1.2%)	54 (6.1%)
Total	640 (72.3%)	73 (8.2%)	108 (12.2%)	23 (2.6%)	41 (4.6%)	885 (100%)

APPENDIX B

FIGURES

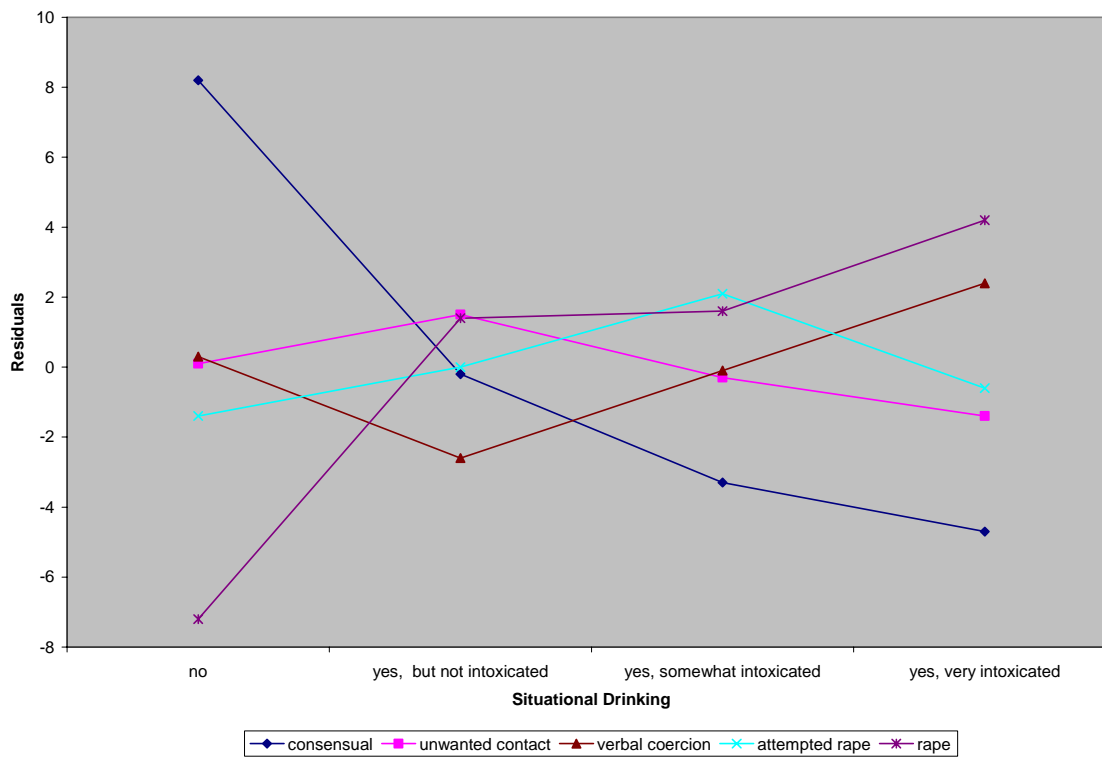*Figure 1*. Time 1 residuals from crosstabulations of situational drinking and victimization

Figure 2. Time 2 residuals from crosstabulations of situational drinking and victimization
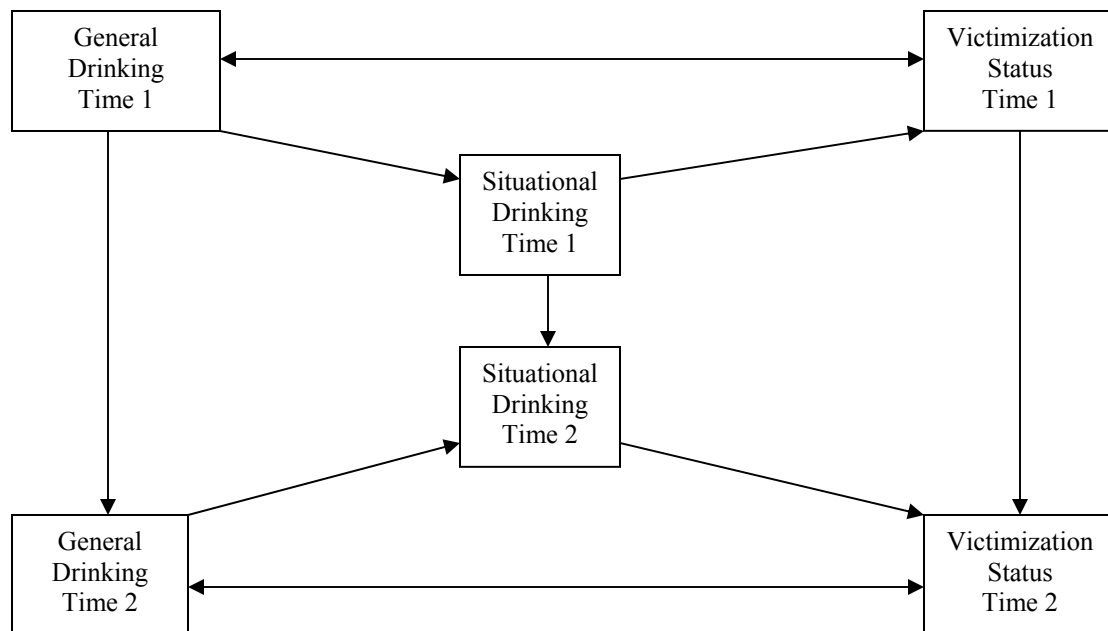
Figure 3. Conceptual model of relationship between general alcohol consumption and sexual victimization experiences.