

The Relationships among Alcohol Use, Sex-Related Alcohol Expectancies, and Incapacitated
Sex

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Abstract

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Numerous studies have examined the role that alcohol use can play in leading to not only sexual behavior but also to potential risky decision making in such situations (Cooper, 2002). This study sought to extend existing research by examining the role that typical drinking, drinking in sexual contexts, and sex-related alcohol expectancies can play in incapacitated sex among a community sample of 309 women. These women both identified as social drinkers and screened in with at least one binge-drinking episode in the past month. It was hypothesized that drinking in sexual situations would mediate the relationship between typical drinking and incapacitated sex. It was further hypothesized that drinking in sexual situations would mediate the relationship between sex-related alcohol expectancies and incapacitated sex. Results confirmed that drinking in sexual situations was a mediator for both typical drinking and sex-related alcohol expectancies in terms of incapacitated sex. These results hold implications for intervention programming related to expectancies and drinking as well emphasize the need for future research into further risk factors related to incapacitated sex.

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Research has consistently found a link between alcohol use and sexual behavior. Studies have found that the amount and frequency of alcohol use not only predicts frequency of sexual behavior and number of sexual partners, but that specifically at a situational level alcohol use is also linked to a higher likelihood of sexual intercourse as well as sexual intercourse with a casual partner (Cooper, 2002). For this reason, numerous studies have examined the role that alcohol use can play in leading to not only sexual behavior but also to potentially risky sexual decision making (George & Stoner, 2000; Kaly, Heesacker, & Frost, 2002). More recently, research has begun to focus on the potential of incapacitation from alcohol in sexual situations and the clear risk that could pose particularly for women in these situations.

In considering alcohol-involved sex or specifically incapacitated sex, it is useful to examine overall drinking as well as drinking specifically in a sexual context; though these may be related, they can potentially impact incapacitation in sexual situations in unique ways. Research has suggested that there may be distinctive risk factors, such as beliefs about the effects of alcohol on sex known as sex-related alcohol expectancies, which can lead to drinking specifically in a sexual context (Dermen & Cooper, 1994). This study seeks to expand on previous research on the role of alcohol use in sexual risk behaviors by specifically examining the role of drinking in sexual situations and the impact that this can have on incapacitated sex.

Not only has alcohol use been linked to overall sexual behavior, but the link between alcohol and sexual risk-taking behavior in particular has been a huge focus in both survey and experimental studies (Cooper, 2002; George & Stoner, 2000; Kaly, Heesacker, & Frost, 2002; Leigh, 1999). Sexual risk-taking behavior encompasses a wide range of behaviors such as having multiple sex partners, engaging in unprotected sex, having casual sex partners, and engaging in sexual activity while intoxicated. Consequences from these risk behaviors can include exposure

to sexually transmitted infections (STIs), unwanted pregnancies, as well as sexual assault and unwanted sexual experiences. Furthermore, women who are frequent drinkers may be more likely to place themselves in environments associated with alcohol that in turn result in increased exposure to risky situations than women who do not drink frequently (Parks & Zetes-Zanata, 1999). Therefore, it is also important to consider the unique consequences of drinking in sexual contexts for women in relation to risky sexual decision making as well as sexual victimization.

Studies have identified a number of risk factors that can increase the likelihood of alcohol consumption related to sexual behavior. Alcohol expectancies relate to the beliefs people have about the effects of alcohol, and sex-related alcohol expectancies have been specifically identified as the beliefs that people hold about the sexual effects of alcohol (Benson et al., 2007). Research has found that overall stronger alcohol expectancies can lead to increases in drinking, and that sex-related alcohol expectancies in particular are related to risky sexual behavior as well as sexual assault (Marx et al., 2000; Testa et al., 1999). Studies have further suggested that high-risk drinkers are more likely to report sexual enhancement expectations from drinking, as well as report engaging in more high-risk sexual behaviors than low-risk drinkers (O'Hare, 2005).

A study conducted by Hendershot et al. (2007) supported a theoretical model suggesting that sex-related alcohol expectancies and drinking before sexual intercourse can provide proximal pathways by which personality traits such as sexual sensation-seeking can increase sexual risk behaviors. However, research has focused less on sex-related alcohol expectancies and the relationship that these may have with incapacitated sex. Additionally, although research has suggested that heavy drinking in general may be linked to more negative sexual outcomes, there is a lack of research that specifically examines the consequences and correlates of sex-related

alcohol expectancies and drinking in sexual contexts among individuals who already identify as social drinkers.

Current Study

This study sought to examine the factors associated with incapacitated sex. It expands on previous research in the area by focusing on the relationship that typical drinking, drinking in sexual situations, and sex-related alcohol expectancies have with incapacitated sex in a community sample. Furthermore, this study is unique in that it not only incorporates a community sample of women, but includes specifically social drinkers who have recently participated in binge drinking. It was hypothesized that drinking in sexual situations would mediate the relationship between typical drinking and incapacitated sex. It was further hypothesized that drinking in sexual situations would mediate the relationship between sex-related alcohol expectancies and incapacitated sex.

Method

Participants

This study included a community sample of female social drinkers that reported one binge drinking episode, defined for women as drinking four or more drinks in less than two hours, in the past year. The women were screened in as heterosexual, single, non-problem drinkers. A total of 304 women participated in the study. The mean age for participants was 25.07 years old ($SD = 3.89$). Ethnicity of the final sample was 70.5% Caucasian, 10.9% multi-racial, 7% Black/African-American, 5.6% Asian, and 2.6% Native. The majority of students (61.3 %) reported that they were not currently students.

Measures

Drinking Calendar. Typical drinking behavior was measured using a calendar format (Collins, Parks, & Marlatt, 1985). Participants were asked to consider a typical month during the past month, and indicate the typical number of drinks they would consume on each day of the work. Final scores represented the average number of drinks participants had for the entire week.

Drinking in Sexual Situations. Participants were asked a single question to assess their frequency of drinking in sexual situations, “In the past 12 months, how often have you consumed alcohol prior to or during sexual activity? (This refers to any time you have consumed alcohol, regardless of anything else you might have consumed.)” Response options were measured on a Likert scale ranging from 0 (*never*) to 6 (*all of the time*).

Sex-Related Alcohol Expectancies. Sex-related alcohol expectancies were assessed using a 9-item scale that has been previously validated (Derman & Cooper, 1994). This scale includes three subscales assessing expectancies related to sexual enhancement, sexual risk, and sexual disinhibition. Response options were measured on a Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), in which the participants were asked to consider each question following the prompt “After a few drinks of alcohol”. Sample items include “I am more sexually responsive” from the enhancement subscale, “I am less likely to ask a partner to use a condom” from the sexual risk subscale, and “I am more likely to do sexual things that I wouldn’t do when sober” from the disinhibition subscale. Final scores represent the mean of the items from each subscale. Cronbach’s alpha was .83 for the enhancement subscale, .70 for the sexual risk subscale, and .79 for the disinhibition subscale.

Incapacitated Sex. Incapacitated sex was measured using a single item which asked participants, “Since age 14: How many times have you had sexual intercourse when you have

been incapacitated by drugs and/or alcohol?" This item was taken from the Sexual Experiences Survey, which was developed to assess adult female sexual victimization (Koss & Oros, 1982)

Procedure

Participants were recruited through flyers, newspaper advertisements, and letters for a larger study on alcohol use, sexual risk, and sexual arousal. All study procedures were approved by the university's institutional review board, and a Federal Certificate of Confidentiality was obtained for this research. Participants completed all measures privately on a computer in a controlled environment.

Data Analysis

Demographic and descriptive information was assessed by determining means and percentages of drinking, drinking during sex, alcohol expectancies, and incapacitated sex. Mediation models were used to examine the research questions and analyzed using multiple regression modeling.

Results

It was found that mean drinks per week for the participants was 11.96 (8.65), and that responses ranged from 0-56. Additionally, 44.4% of the participants reported having experienced incapacitated sex since the age of 14. This was reported as happening only once for 19.9% of the sample, twice for 11.6% of the sample, and more than five times for only 7% of the sample. The average for the sexual enhancement subscale was the highest at 3.59 (1.12). The average for the sexual risk subscale was 2.77 (1.46), and 3.28 (1.27) for the disinhibition subscale.

The results supported the hypothesis that typical drinking would significantly predict frequency of incapacitated sex ($\beta = .15, p < .01$), and that typical drinking would significantly predict drinking in sexual situations ($\beta = .28, p < .01$). Furthermore, the results found that as

expected, drinking in sexual situations mediated the relationship between overall typical drinking and incapacitated sex (see Figure 1).

Additionally, the results supported the hypothesis that sex-related alcohol expectancies would significantly predict frequency of incapacitated sex ($\beta = .20, p < .01$), as well as drinking in sexual situations ($\beta = .32, p < .01$). The results further supported the second hypothesis by revealing that that as expected, drinking in sexual situations mediated the relationship between sex-related alcohol expectancies and incapacitated sex. However, this mediation was only found for the subscale of sexual enhancement (see Figure 2).

Discussion

Consistent with previous research, this study found that alcohol was frequently involved in sexual situations for the participants (Cooper, 2002). Specifically, it was found that nearly half of the participants (44.4%) had had an experience of incapacitated sex since the age of 14. This suggests that among women who are already social drinkers, there may be factors at play that further place these individuals at a heightened risk for risky sexual behavior through incapacitation. Additionally, only 7% of the sample indicated that this had happened five or more times. This suggests that the participants may have been identifying more extreme situations of incapacitation, or potentially incapacitated rape. Incapacitated rape occurs when the victim is incapable of consenting to sexual behavior through physical helplessness or mental incapacitation. Therefore, this study indicates that not only did the participants exhibit a high rate of incapacitated sex, but that further research is needed in order to explore the impact or potential risk for incapacitated rape in this population.

As expected, the results supported the hypothesis that typical drinking and drinking in sexual situations would be linked to incapacitated sex. Furthermore, the results also supported

the hypothesis that drinking in sexual situations mediated the relationship between typical drinking and incapacitated sex. Further research is needed to tease apart factors related to increased drinking in sexual situations and differences among social drinking women, but this indicates that even within a community sample of social drinkers there may be differences in terms of drinking within sexual situations. This is also useful for potential intervention programming in terms of address alcohol use in specific contexts and potential sexual risk.

Consistent with research indicating relationship between sex-related alcohol expectancies and risky sexual behavior (Derman & Cooper, 1994), the results also found a relationship between sex-related alcohol expectancies and both drinking in sexual situations as well as incapacitated rape. Additionally, a mediating relationship was found for drinking in sexual situations between sex-related alcohol expectancies and incapacitated sex. This indicates that stronger sex-related alcohol expectancies can lead to more drinking in a sexual context, which in turn can lead to increased risk for incapacitated sex. However, this mediation was only found for the subscale of enhancement. It is possible that the subscales of sexual risk and sexual disinhibition reflect a protective caveat for participants when they are drinking in sexual contexts that sexual enhancement does not. It could be that participants who endorse stronger expectancies related to risk and disinhibition are less likely to drink in sexual situations because they want to avoid potential negative consequences associated with these beliefs. However, sexual enhancement may capture more potentially positive beliefs, such as becoming a better lover after drinking, that could lead to increased alcohol use in a sexual context. It is important for future research to consider differences in expectancies, particularly when focusing on how best to target reducing the risk associated with sex-related alcohol expectancies.

This study provides insight into alcohol use and incapacitated sex among a unique sample of not only socially drinking women, but women who reported a recent episode of binge drinking. However, as the sample lacks ethnic diversity, it is necessary for future research to consider both ethnicity and culture in examining risk factors related to incapacitated sex. Furthermore, this study was limited in that it is cross-sectional. It is also important for future studies to consider the potential for incapacitated rape, and how additional factors such as drinking to cope, sex to cope, and childhood sexual assault might be linked to drinking in sexual situations and sexual risk through incapacitation.

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