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Alcohol Myopia and Sexual Abdication among Women: Examining the Moderating Effect of Child Sexual Abuse

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Abstract

HIV and other STIs are major public health concerns for women, and risky sexual behaviors increase the risk of transmission. Risky sexual behaviors include sexual abdication, that is, willingness to let a partner decide how far to go sexually. Alcohol intoxication is a risk factor for risky sexual behavior, and the Inhibition Conflict Model of Alcohol Myopia may help explain this relationship (Steele et al., 1985). This model suggests that in order for intoxication to influence behavior there must be high conflict, meaning the strength of the instigatory cues and inhibitory cues are both high. Recent research indicates that the degree to which cues are experienced as high in instigation or inhibition is subject to individual difference factors. One individual difference factor associated with alcohol-related sexual risk taking is child sexual abuse (CSA) history. The current study examined the influence of acute alcohol intoxication, CSA, and inhibition conflict on sexual abdication with 131 women (mean age 25) randomized into a 2 (alcohol, control) x 2 (high conflict, low conflict) experimental design. Regression analyses yielded a significant 3-way interaction, $F(1,122) = 8.15$, $R^2 = .14$, $p < .01$. When there was high conflict, intoxicated CSA women were more likely to abdicate than sober CSA women, however, sober CSA women were

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less likely to abdicate than sober NSA women. When there was low conflict, CSA history and alcohol intoxication had no influence on abdication. These results may help explain the association between alcohol and risky sexual decision making among women with CSA.

Keywords

Abdication; alcohol myopia; inhibition conflict; sexual abuse; condom; sexual risk

1. Introduction

Women account for a quarter of HIV/AIDS cases, and sexually transmitted infections (STIs) continue to be a major public health concern (CDC, 2014). Sexual abdication, the willingness to let a partner decide what to do sexually, is a risky behavior that may increase risk of contracting STIs, but has received little investigation (Masters et al., 2013; Zawacki et al., 2009). The current study examines two factors that may be related to women's in-the-moment intentions to abdicate sexual decision making to their partner: alcohol myopia and childhood sexual abuse (CSA).

1.1 Alcohol Effects and Alcohol Myopia Theory

A major factor for risky sexual decision making is alcohol. Experimental evidence reports a causal relationship between alcohol and risky sexual behavior in which alcohol increases its likelihood (for reviews, see George & Stoner, 2000; Hendershot & George, 2007; Rehm, Shield, Joharchi, & Shuper, 2012). An experiment by Zawacki et al. (2009) reported that acute intoxication interacted with relationship factors to increase sexual abdication and unprotected sex intentions.

Alcohol Myopia Theory (AMT) can explain alcohol's influence on risky sexual behavior (Steele & Josephs, 1990). AMT posits that alcohol decreases cognitive processing ability resulting in narrowed attentional focus. Consequently, alcohol disrupts ability to process environmental cues such that the most salient instigatory or inhibitory cues are attended to. In sexual situations, instigatory cues encompass high sexual arousal or presence of a condom signaling sexual safety. Inhibitory cues include the presence of a new partner of unknown STI risk or absence of a condom signaling sexual caution (MacDonald, Fong, Zanna, & Martineau, 2000; MacDonald, MacDonald, Zanna, & Fong, 2000). While condom presence likely plays a role in sexual decision making, few studies have manipulated condom presence to examine its influence on sexual risk intentions (Conner & Flesch, 2001; Gilmore et al., in press).

The inhibition conflict version of AMT specifies that for intoxication to influence behavior there must be high conflict; the strength of the instigatory cues and inhibitory cues must both be high. Conversely, under low conflict conditions, alcohol would not influence behavior (Steele et al., 1985; Steele & Josephs, 1990). A low conflict example would be a sexually arousing scenario with a new partner of unknown risk with no condom available. In this case, the inhibitory cues of new partner, unknown risk, and no condom are stronger than the instigatory cue of sexual arousal, inhibiting sexual risk taking regardless of intoxication. However, with a condom this scenario would represent a high conflict situation in which the

instigatory cues of condom presence and sexual arousal juxtapose the inhibitory cues of new partner and unknown risk. According to the inhibition conflict model, in the latter situation alcohol myopia should lead to increased sexual risk taking when intoxicated but not when sober.

1.2 Condom Presence

Condom presence is an important consideration in sexual encounters, but has received scant research attention. An underlying assumption has been that condom absence equates with high risk sexual outcomes and condom presence equates with lower risk. However, this assumption oversimplifies actual risk because condom absence poses little risk with an exclusive partner known to be disease free. Also, while consistent and correct condom use can reduce risk of STI transmission, it does not eliminate all risk. Some STIs are transmitted through contact with infected skin and would not be protected by a condom (CDC, 2013). Furthermore, condom presence does not guarantee that the condom will be used or used correctly. Condom presence may make a woman feel safer in a sexual situation, increasing her likelihood of abdicating sexual decisions to her partner, allowing him to decide whether he uses a condom.

1.3 CSA as a Moderator

Individual differences are important when examining myopia processes because cues might be salient for different people depending on previous life experiences, personality, and attitudes (Davis et al., 2007; Morris & Albery, 1991). One individual difference factor that has consistently been associated with sexual risk is CSA history (Loeb et al., 2002). CSA is defined as any interaction in which a child is used for the perpetrators' sexual stimulation. In the US, approximately 1 in 4 women report a CSA history according to this definition (APA, n.d.). Evidence suggests that CSA, compared to non-abused women (NSA), are more likely to engage in high-risk sexual behaviors (Cinq-Mars, Wright, Cyr, & McDuff, 2003; Loeb et al., 2002; Senn, Carey, Venable, Coury-Doniger, & Urban, 2006).

As operationalized in previous experimentation (Masters et al., 2013; Stoner et al., 2007), sexual abdication constitutes a risky behavior because it involves allowing a partner to decide what to do, including unprotected sex. Sexual abdication may be especially relevant to CSA women who often feel powerless and unassertive in sexual situations and have difficulty refusing unwanted sexual advances (Johnsen & Harlow, 1996; Katz, May, Sorensen, & DelTosta, 2010; Marx, Heidt, & Gold, 2005). In experiments utilizing sexual assault scenarios, victimized women exhibited less assertiveness and greater passivity than non-victimized women (Stoner, George, Peters, & Norris, 2007; Stoner et al., 2008). Only one experiment to date examined women's sexual victimization history, alcohol intoxication, and sexual abdication. Masters et al. (2013) found that alcohol increased sexual abdication directly and indirectly; CSA increased abdication indirectly via adult sexual assault and perceptions of the partner. Sexual abdication was positively associated with unprotected sex likelihood. However, Masters et al. (2003) did not examine the interaction between CSA and alcohol. These findings suggest that women with CSA histories may be more likely to abdicate sexually to a partner.

Examining the relationship between CSA and alcohol intoxication is pertinent because CSA, compared to NSA, women report greater past year heavy episodic drinking, alcohol dependence, and lifetime alcohol-related negative consequences (Lown, Nayak, Korcha, & Greenfield, 2011). Furthermore, CSA women are more likely than NSA women to use alcohol before sex, increasing the likelihood of impaired sexual decision making (Wilsnack, Wilsnack, Kristjanson, Vogeltanz-Holm, & Harris, 2004). No study has examined how CSA history and alcohol intoxication interact when inhibition conflict is manipulated.

1.4 Present Study

The present study used an alcohol administration protocol and a hypothetical sexual situation, manipulating inhibition conflict, to investigate CSA as a moderator of the relationship between alcohol intoxication and sexual abdication intentions. We hypothesized:

- H1** CSA women would be more likely to abdicate than NSA women.
- H2** Two-way interaction between alcohol and inhibition conflict condition:
 - A.** When a condom is absent in the scenario (low conflict), there would be no alcohol effect on sexual abdication intentions.
 - B.** When a condom is present in the scenario (high conflict), there would be a myopia effect and intoxicated individuals would be more likely to abdicate.
- H3** Three-way interaction:
 - A.** When there is low conflict, there would be no significant effects of alcohol and CSA on abdication.
 - B.** When there is high conflict, there would be an alcohol myopia effect among CSA women but not among NSA women.

Method

2.1 Participants

Women ($N=131$) between the ages of 21–35 years old, single, and interested in dating opposite-sex partners were recruited from an urban community for a study on “social drinking and decision-making.” Participants’ average age was 25.25 years ($SD = 4.5$). The sample was 67.4% Caucasian, 9.1% African American, 13% multiracial, 5.3% Asian American, Hawaiian or Pacific Islander, and 3.8% “other”. Furthermore, 6.8% reported Hispanic ethnicity. The majority (71.2%) earned less than \$40,000 per year. See Table 1 for drinking and sex characteristics.

Participants drank at least 5 drinks per week on average and had one heavy drinking episode (5 or more drinks on one occasion) in the past 6 months because the study’s target peak breath alcohol concentration (BrAc) was 0.10%. Minimum drinking eligibility criteria ensure that the amount of alcohol consumed in the study is within the typical drinking range of participants. Because of high CSA prevalence in the United States (APA, n.d.), no special

effort was made to recruit CSA women. To comply with NIAAA guidelines (NIAAA, 2005) participants were excluded if they indicated problem drinking, were taking medications, or had a health condition contraindicating alcohol consumption.

Procedures

2.2.1 Overview—Participants were instructed not to: drive to the laboratory, drink alcohol or take any medications 24 hours prior to their appointments, and eat or drink anything caloric for 3 hours before the experiment. A female experimenter ensured participants were at least 21 by checking photo ID and administered a breath test (Intoxilyzer 5000, CMI Inc., Owensboro, KY) to establish a 0.00% BrAC. The experimenter obtained informed consent, administered a pregnancy test (Osom hCG-Urine Test, Genzyme General Diagnostics, San Diego, CA), and left the participant to complete background measures. Following study completion, sober participants were debriefed, paid, and released. Alcohol participants remained in the laboratory until their BrAC dropped below .03% before being debriefed, paid, and released (NIAAA, 2005). Participants received \$15 per hour for participation.

2.2.2 Alcohol Administration Procedures—Participants were randomly assigned to either an alcohol (target peak BrAc 0.10%) or control condition. Drinks consisted of one part 190 proof alcohol to 6 parts juice, body weight adjusted, in 3 cups. Control participants were given the same amount of plain juice. Participants had 9 minutes to consume their drinks, with BrAC tested every 3 minutes until they reached the criterion of .065%. Control participants were yoked to alcohol participants so the same number of breath tests were conducted and amount of time passed before reading the scenario¹.

2.2.3 Sexual Risk Scenario—Participants projected themselves into an erotic, written scenario of approximately 1500 words, presented via a computer, in which the participant was the protagonist. It depicted an interaction between the protagonist and a former male co-worker, “Joe,” which progressed from talking at a party to engaging in sexual foreplay. Inhibition conflict was manipulated by randomizing participants into either a condom-present condition (high conflict) or condom-absent condition (low conflict condition). In the high conflict condition, the scenario ended when Joe said “I would love to be inside of you. Is that okay? *I have a condom*”; in the low conflict condition, Joe said “I would love to be inside of you, *but I don’t have a condom*. Is that okay?” All participants were described as taking birth control pills to reduce risk of pregnancy influencing participants’ decisions. Participants then recorded their sexual abdications intentions. The protagonist’s scenario beverage consumption matched participant’s assigned alcohol condition. The male was always depicted as consuming 2 alcoholic beverages.

2.2.4 Pilot Study—A pilot study established the inhibition conflict manipulation. Ten women were assigned to each conflict condition. One question assessed inhibition conflict:

¹For readers unfamiliar with alcohol research methods, it is important to note that the comparison condition here was not a placebo condition (where participants expect to receive alcoholic drinks, but actually receive non-alcoholic drinks); but was instead a standard no-alcohol control condition (where participants expect to receive non-alcoholic drinks, and actually receive non-alcoholic drinks). That is, participants in the control condition are told that they would be treated identically as participants in the alcohol condition, except that their drinks will contain only juice. They were not led to “expect” that their drinks contained alcohol.”

“Overall, were the reasons for having sex, or the reasons against having sex, in this situation stronger?” Response options ranged from 1 (*reasons against having sex were much stronger*) to 7 (*reasons for having sex were much stronger*). T-tests revealed a significant difference between the condom present, high conflict condition, and the condom absent, low conflict condition, $t(18) = 4.27, p = .00, d = 1.91$. High conflict participants rated strength of reasons for and against having sex as equivalent ($M = 4.0, SD = 1.4$), while low conflict participants rated reasons against having sex as stronger ($M = 1.7, SD = 1.0$).

2.3 Measures

2.3.1 Childhood Sexual Abuse—Participants were classified as either having a CSA or NSA history with Finkelhor’s (1979) questionnaire: a comprehensive, behaviorally specific measure assessing contact and noncontact sexual abuse experiences. CSA participants experienced at least one sexual contact event (touching, sexual fondling, oral sex, and/or intercourse) with someone five or more years older when no more than 14 years old.

2.3.2 Sexual Intentions—Following scenario presentation, participants rated sexual abdication likelihood with one item: “At this point, how likely are you to relax and let Joe decide how far to go?”, 1 (*not at all likely*) to 5 (*very likely*).

2. Results

Forty-one percent ($n = 54$) of participants were categorized as CSA and 59% ($n = 77$) as NSA. A hierarchical multiple regression analysis examined effects of alcohol condition, conflict condition, and CSA on abdication likelihood. To test hypothesis 1, a main effect of CSA on abdication likelihood, CSA, alcohol condition, and conflict condition were entered in Step 1. To test hypothesis 2, an interaction between alcohol condition and inhibition conflict condition, two-way interaction terms were entered in Step 2. To test hypothesis 3, the three-way interaction, CSA, alcohol condition, and conflict condition were entered in Step 3 (see Table 2). Neither the first step, $F(3,126) = 2.40, R^2 = .05, p = .07$, nor the second step was significant, $F(3,123) = 1.13, R^2 = .08, p = .34$. However, the third step revealed a significant three-way interaction, $F(1,122) = 8.15, R^2 = .14, p < .01$.

To probe the interaction, we examined CSA and alcohol effects within the high and low conflict conditions. In the high conflict condition (Figure 1a), t-tests revealed a significant difference in abdication likelihood between the alcohol ($M = 3.28, SD = 1.45$) and control ($M = 1.89, SD = 0.93$) conditions among CSA women, $t(23.17) = -3.02, p < .05$. There was no significant difference between the alcohol ($M = 2.26, SD = 1.60$) and control ($M = 3.08, SD = 1.29$) conditions among NSA women, $t(42) = 1.88, p = .07$. In the high conflict condition, t-tests revealed a significant difference in abdication likelihood between the NSA ($M = 3.08, SD = 1.29$) and CSA ($M = 1.89, SD = 0.93$) groups among control participants, $t(32) = 2.54, p < .05$. Abdication likelihood differences between NSA ($M = 2.35, SD = 1.60$) and CSA ($M = 3.28, SD = 1.45$) groups in the alcohol condition approached significance, $t(36) = -1.87, p = .07$. There were no significant differences in the low conflict condition (Figure 1b; all p ’s $> .27$).

3. Discussion

This study's results highlight CSA as an important individual difference variable influencing the relationship between inhibition conflict and sexual risk taking. In line with the inhibition conflict model of Alcohol Myopia Theory, we found no alcohol effects in the low conflict condition where inhibitory cues outweighed instigatory cues. However, with high conflict, abdication intentions were higher among CSA women in the alcohol condition than in the control condition. Furthermore, abdication intentions were higher among sober NSA women than sober CSA women. These findings suggest that CSA may be an important variable influencing alcohol's effect on sexual abdication.

Although we hypothesized a main effect of CSA on sexual abdication, our results did not support this relationship. Extensive evidence has found that CSA women report inconsistent condom use, have more sexual partners, and are less able to attend to risk cues in a sexual situation (for a review, see Loeb et al., 2002). However, few studies have used experimental paradigms to examine in-the-moment sexual risk-taking, and only one study has examined the relationship between CSA and sexual abdication intentions (Masters et al., 2013). Despite higher rates of sexual risk among CSA women than in the general population, some studies find no differences between abused and non-abused women in sexual risk-taking (Loeb et al., 2002). Findings from this study suggest that CSA may interact with alcohol and inhibition conflict and may explain inconsistency in previous findings.

As hypothesized, in the third step of our model we found a significant interaction between alcohol and conflict condition on sexual abdication likelihood. This is consistent with Steele and Southwick (1985), who reviewed 34 studies investigating alcohol's effect on social behavior to assess inhibition conflict. They found that alcohol's effect on a variety of social behaviors (e.g., assertiveness, risk taking) was influenced by conflict level between instigatory and inhibitory cues. However, this two-way interaction was superseded by a significant three-way interaction, meaning the hypothesized two-way interaction is only significant for CSA women. Under high conflict, intoxicated CSA women were more likely to abdicate than sober ones. Intoxicated CSA women may be less able to focus on inhibitory cues of a potentially risky new partner, and therefore be more likely to let him decide how far to go, increasing their risk. Steele and Southwick (1985) did not consider individual difference variables, such as CSA, that may influence the level of conflict experienced in a situation. However, our results are consistent with findings from Davis and colleagues (2007), where individual difference variables (i.e., a priori perception of the risks/benefits of unprotected sex) influenced alcohol's effects on unsafe sex intentions in a sexual scenario. Previous research suggests that both intoxicated women (Norris et al., 2013; Purdie et al., 2011) and CSA women (Messman-Moore & Long, 2003; Zurbriggen & Freyd, 2004) may have difficulty assessing risk in a sexual situation. However, rather than independent effects, in the present study intoxication and CSA history jointly predicted risk in a high conflict sexual situation.

We also found an unexpected pattern of results in the high conflict no alcohol condition in which CSA women were less likely to abdicate than NSA women. Perhaps as a result of previous abuse experiences women learned to associate sexual behavior with fear or anxiety

and were more cautious in sexual situations when sober, making them less likely to abdicate. Evidence suggests that CSA women are more likely than NSA women to associate sex with negative emotions (Rellini & Meston, 2007). Alcohol may relieve some negative emotion associated with the sexual situation and reduce women's sexual caution. Alcohol's anxiolytic effect may make women with a CSA history more likely to abdicate (Sayette, 1993).

While this explanation is speculative, these results are consistent with a study (Stoner et al., 2007) that found when women were sober, high sexual fear scores predicted decreased sexual abdication. When intoxicated, however, high sexual fear scores predicted increased sexual abdication. Stoner and colleagues suggest that alcohol may affect individuals differently and that alcohol may foster sexual risk taking because it attenuates fear and anxiety. Our results do not address what participants attend to in the erotic scenario; therefore, fear is only one potential explanation. Future research should examine the role of emotions in alcohol and sexual risk taking, focusing on this nexus in the context of CSA history. Furthermore, while the current study assessed CSA history as an individual difference influencing inhibition conflict, it is important to consider individual differences in the valence given to situational cues such as presence of a condom. Future research would benefit from assessing whether individual cue importance plays a role in the associations between alcohol use, CSA history, and sexual abdication.

Additionally, we found significant differences in sex and drinking characteristics between CSA and NSA groups. Consistent with previous literature, CSA individuals had a lower age of first consensual sex and a higher number of total vaginal sex partners (Fergusson, Horwood, & Lynskey, 1997; Mason, Zimmerman, & Evans, 1998). Furthermore, CSA women reported consuming a greater number of drinks than NSA women on the occasion they drank the most in the past month. This finding is consistent with previous literature that suggests CSA women are more likely to report heavy episodic drinking than NSA women (4 or more drinks per drinking occasion; Lown et al., 2011). CSA women appear to be at increased risk in terms of sexual and drinking behavior, compared with NSA women in our sample.

Although we cannot ascertain why alcohol interacted differently with CSA and NSA women under high inhibition conflict, these findings have important clinical implications. First, psychoeducation about alcohol's effect on decision making may be especially important for women with a sexual abuse history. Furthermore, prevention and treatment interventions may be enhanced by focusing on attention to cues in a sexual situation. If women learn to identify what cues they attend to in different sexual situations, they may better be able to perceive risk and avoid unwanted consequences. Finally, sexual abdication is a potentially risky sexual behavior that does not receive much attention. Efforts to prevent STIs may benefit from including information about sexual abdication and teaching women how to take control of their sexual decision making. This may be especially important for CSA women who are unassertive in sexual situations (Marx et al., 2005).

This study had several limitations. First, the abdication measure was a single item. However, it is notable that findings obtained with this item are consistent with findings using multi-

item abdication indicators (Stoner et al., 2007; Zawacki et al., 2009). Another limitation is sample characteristics may limit the generalizability of findings. Participants were non-problem drinkers, single, and willing to volunteer for a sex study. Furthermore, sex and drinking sample characteristics dictate that the findings should be interpreted recognizing this as a high risk sample. Though these findings need replication and expansion to other sexual risk measures beyond sexual abdication, CSA history appears to moderate the relationship between alcohol myopia and risky sexual decision making.

STIs continue to be a major public health concern, and rates are high among CSA women who engage in risky sexual behaviors. It is important to understand what occurs in the moment that risky sexual decisions are made to inform prevention and intervention efforts. These findings suggest that interventions may benefit from targeting sex-related alcohol use, attention to risk cues, and abdication tendencies in women with a CSA history.

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Highlights

- We used an experimental design to examine in-the-moment sexual decision making.
- There was a significant 3-way interaction among CSA, alcohol, and inhibition conflict.
- With high conflict, intoxicated CSA women abdicated more than NSA women.
- With high conflict, sober CSA women abdicated less than sober NSA women.
- With low conflict, CSA history and alcohol had no influence on abdication.

Figure 1.

- a. CSA X alcohol interaction on abdication likelihood in the high conflict condition
- b. CSA X alcohol interaction on abdication likelihood in the low conflict condition

Table 1

Drinking and Sex Characteristics by CSA Category

	CSA (N=54)				NSA (N=77)			
	M (SD)	Min	Max		M (SD)	Min	Max	
Drinking Characteristics								
Number of drinking days per week	3.24(0.93)	2	5		3.17(0.92)	1	6	
Total number of drinks per week	14.00(9.95)	2	44		11.30(7.79)	2	43	
Typical number of drinks per weekend night	5.00(3.97)	0	28		3.99(1.72)	1	10	
Peak drinks/occasion in last month	8.19(3.41)*	3	16		6.88(3.08)*	2	15	
Sex Characteristics								
Age of first consensual sex	15.69(2.29)*	10	22		16.91(2.28)*	12	25	
Total number of vaginal sex partners	29.58(51.92)*	0	325 ^a		13.93(14.36)*	0	75	
Frequency of vaginal sex in past 3 months	18.30(20.66)	0	80		17.48(18.80)	0	90	
^b Unprotected sex past 12 months	2.44(2.13)	0	6		2.49(1.98)	0	6	
^b Alcohol before sex during last 12 months	2.74(1.63)	0	6		2.66(1.39)	0	6	

Note.

* *p* .05.

^aThe next highest number of vaginal sex partners was 200. We excluded these two outliers, reran analyses, and t-test results did not change. We included these participants in the descriptive data because these values are conceivably accurate.

^bResponse options ranged from 0 (never) to 6 (all of the time).

Table 2

Summary of hierarchical regression analyses for abdication likelihood (N = 131)

	Abdication Likelihood			
	R ²	R ²	β	s-r
Step 1:	.05			
CSA			−0.01	.87
Alcohol			0.04	.68
Conflict			0.23	.01
Step 2:	.08	.03		
CSA			−0.23	.16
Alcohol			−.05	.73
Conflict			0.22	.13
CSA X Alcohol			0.27	.09
CSA X Conflict			0.07	.63
Alcohol X Conflict			−0.06	.71
Step 3:	.14**	.06		
CSA			0.05	.77
Alcohol			0.18	.29
Conflict			0.41	.01
CSA X Alcohol			−0.19	.40
CSA X Conflict			−0.39	.07
Alcohol X Conflict			−0.43	.04
CSA X Alcohol X Conflict			0.69	.01

Note. CSA = Child Sexual Abuse; s-r = semi-partial correlations, a measure of effect size.

**

$p < .01$