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## Does Impulsivity Moderate the Association between Alcohol-Related Expectancies for Sex and Sexual Aggression Perpetration?

MonicaMonet Franklin-Kidd  
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## ABSTRACT

## DOES IMPULSIVITY MODERATE THE ASSOCIATION BETWEEN ALCOHOL-RELATED EXPECTANCIES FOR SEX AND SEXUAL AGGRESSION PERPETRATION?

By

MONICAMONET CHRISION FRANKLIN-KIDD

NOVEMBER 2023

Sexual violence is a global public health epidemic that affects women across the world. Sexual violence is defined as an act that involves nonconsensual sexual contact or behaviors, both physical and non-physical. In the United States, a woman is sexually assaulted every two minutes, making this a health crisis that must be addressed. Research studies focused on risk factors for perpetration, have found that both personal and environmental factors are associated with the perpetration of sexual aggression. Alcohol is an established risk factor for sexual perpetration. One facet of impulsivity, negative urgency, has also been linked to sexual aggression. While impulsivity and alcohol both have strong relationships with sexual aggression, the literature fails to examine a potential relationship between these two variables and sexual aggression. This present study aims to examine how the association between sexual aggression and alcohol-related sex expectancies, or common beliefs or expectations regarding the effects of alcohol on the sexual experience, are moderated by negative impulsivity. The study hypotheses were that alcohol-related sex expectancies will be positively associated with sex aggression. Further hypotheses were that alcohol-related sex expectancies would be associated with sexual aggression among men who reported higher, compared to lower, levels of negative urgency. Results indicated that negative urgency did not moderate the association between alcohol-related expectancies for sex and sexual aggression. A pos hoc analysis indicated that an interaction between sensation seeking and alcohol-related sex expectancies for women: sex drive predicted sexual aggression perpetration, whereas high levels of expectancies are positively associated with low levels of sensation seeking. Future research is needed to examine other potential moderators in the relationship between alcohol-related expectancies for sex and sexual aggression. Researchers should also consider examining sexual sensation seeking as a predictor for sexual aggression perpetration, but not as a facet of impulsivity.

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by

MONICAMONET CHRISION FRANKLIN-KIDD

B.S., SPELMAN COLLEGE

A Thesis Submitted to the Graduate Faculty  
of Georgia State University in Partial Fulfillment  
of the  
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MASTER OF PUBLIC HEALTH

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30303

APPROVAL PAGE

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### Author's Statement Page

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MonicaMonet Franklin-Kidd

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## Background

### *Sexual violence is a significant health problem.*

Sexual violence is a global public health epidemic that affects women across the world. Approximately one in every five college women experiences sexual violence, and one in four women has experienced completed or attempted rape (Muehlenhard et al. 2017; Trottier et al. 2021). Sexual violence is defined as an act that involves nonconsensual sexual contact or behaviors, both physical and non-physical (Martin et al. 2022) and can include sexual assault, sexual harassment, and rape. Although any woman can experience sexual violence, people who are disproportionately affected by sexual violence include but are not limited to: women with disabilities, women under twenty-four years, bisexual women, and women who have been assaulted in the past ([CDC] 2022). Additionally, prevalence rates for sexual violence in racial and ethnic minority groups experience higher rates of sexual violence than Non-Latinx White counterparts (Martin et al. 2022). Individuals who experience sexual violence experience a multitude of different adverse health problems due to the trauma and stress this act causes including mental health problems, the risk of unwanted pregnancy, and the risk of transmission of sexually transmitted infections (Dworkin et al. 2017). To ultimately prevent sexual violence, we must understand the risk factors for sexual assault perpetration, like personality traits, attitudes/beliefs pertaining to sex, and behavioral problems developed in the past. The reported prevalence of sexual violence perpetration for college men is approximately 29% (Anderson, Goodman and Thimm 2020), reflecting a need for interventions and research that targets reducing this rate. The present study aims are to address this gap and examine the association between expectancies for sex in relation to alcohol, negative urgency (a facet of impulsivity relating to acting because of negative emotions), and sexual violence.

## Literature Review

### *Theory of perpetration: Confluence Model*

Sexual violence perpetration is an act that is conducted mostly by men. Researchers studying sexual violence perpetration aim to understand different factors that contribute to a person's likelihood to perpetrate sexual violence. The Hierarchical-Mediational Confluence Model (hereafter referred to as the Confluence Model) is a theory of understanding the risk factors of sexual violence perpetration (Malamuth et al. 1991; Malamuth 2003). The theory posits that the presence of risk factors such as hostile masculinity, impersonal sex, delinquency, acceptance of rape myths, and sexual dominance contribute to sexual violence perpetration. Each risk factor in the model is connected, with strong associations to not only the outcome of sexual aggression but also each other.

Empirical studies have provided support for the Confluence Model. Specifically, research has found that hostile masculinity and impersonal sex are associated with sexual violence in college samples (Abbey, Jacques-Tiura and LeBreton 2011) and in community samples (Russell and King 2020). A recent review found that the association between hostile masculinity and impersonal sex with sexual violence has been consistent across the literature (Ray and Parkhill 2023). Due to this, we can conclude that these two risk factors are key proponents for understanding perpetration and that these risk factors also strengthen the associations for other risk factors predicting sexual violence (i.e., empathy, substance use, etc.). Research testing the Confluence Model has mainly been conducted with college populations (Alexander 2019; Wegner and Abbey 2016) and in more recent students with adolescent boys (Huntington, Pearlman and Orchowski 2022; Nguyen and Parkhill 2014), while research on sexual violence among community men is limited.

***Alcohol use is a contributing factor for men's perpetration.***

Alcohol, either present in social settings or the consumption by the perpetrator, is a risk factor for sexual violence perpetration (Abbey, McDaniel and Jilani 2022; Parkhill and Abbey 2008). The strong association between alcohol consumption and sexual aggression perpetration has both psychological and pharmacological properties (Abbey 2011; Kingree and Thompson 2015a). Alcohol is a drug that causes the consumer to feel inhibition. This inhibition is viewed as disoriented looks, lack of awareness, loss of motor control, and heightened emotional state, but can look different pertaining to the person's experiences. Alcohol also affects personal judgment, resulting in actions that a person might be less inclined to do if there was no alcohol present (Kingree and Thompson 2015a; Leigh and Stacy 1993). Research found that alcohol intoxication inhibits social cues that are linked to preventing sexually aggressive acts, such as empathy or a sense of morality (Kingree and Thompson 2015b). Instead, perpetrators who consume alcohol are more likely to be sexually aggressive and display emotions that are but not limited to; frustration, anger, and entitlement (Abbey 2011).

Researchers have expanded the Confluence Model to include alcohol use (Abbey 2011). Alcohol as a risk factor has a strong positive association with sexual aggression perpetration (Abbey 2011) and also has strong associations with the other risk factors of the confluence model, including hostile masculinity, delinquency, and impersonal sex (Abbey 2011; Abbey, Jacques-Tiura and LeBreton 2011). Although the Confluence Model is a well-supported theory for understanding sexual aggression perpetration, and prior research has integrated the presence of alcohol and general drinking patterns (Parkhill and Abbey 2008; Testa and Cleveland 2017), one gap is that research does not account for the psychological expectations when alcohol is present.

### ***General alcohol expectancy theory***

Alcohol expectancies, which are the beliefs people hold about the effects of alcohol, can influence an individual's behaviors when drinking (George et al. 1995). Alcohol expectancy theory suggests that how individuals anticipate responding to the effects of alcohol impacts behavior when drinking (Darkes and Goldman 1993). For example, a placebo-effect study determined that participants, whether in the experimental group receiving alcohol or in the placebo group receiving what they believed was alcohol, their behaviors were still similar, indicating that people have a common belief of what alcohol's effect is on behavior (Marlatt and Rohsenow 1980). The study suggests that people's beliefs about alcohol can influence their actions or what they expect is the appropriate action when alcohol is present. Another study examining a population of 342 college student found that alcohol's effect on a given day had a positive association with their reported expectancies for that day (Lee et al. 2020). Consistent with the theory, students had reported high levels of alcohol consumption were significant and positively associated with reporting high alcohol expectancies. Researchers also found that participants who stated their expectancies the afternoon interview prior to drinking that following night also reported the same if not similar subjective social and behavioral effects the following morning interview.

Expectancy theory is divided into two types of expectancies; positive expectancies and negative expectancies (Jones and Gordon 2017). The research found alcohol expectancy theory categorizes expectancies into four categories: aggression, assertiveness (known as negative expectancies), sexual enhancement, and relaxation (known as positive expectancies), allowing this model to be used to understand the implications of alcohol's effect on the cognitive choices not only self but, also of other men and women (Abbey et al. 1999; Edgar and Knight 1994;

Leigh and Stacy 1993). These expectancies can dictate the intricacy in interactions between gender beliefs, consumption patterns, behavior, and psychological factors as well. For example, in a college sample of 238 students, the study found that men who had high levels of alcohol use had higher expectancies in sexual enhancement (positive expectancy) for themselves and for other women (Fachini and Furtado 2013). Based on these findings, it is theorized that men who experience higher levels of alcohol use believe that not only themselves, but other women want to have more sexual experiences when alcohol is present. Researchers believed that the results indicated that effective prevention measures should include components related to differences in alcohol use between men and women (cite). Further research is still needed to support the original claims of the theory; thus, it is important to consider how both one's own and one's perception of expectancies of others may be related to sexual aggression.

### *Alcohol expectancies for sex*

While general expectancy theory proposes beliefs about the effects of alcohol, alcohol can also influence the beliefs a person has on external interactions with others, including sexual behavior. Sex-related alcohol expectancies have provided researchers with insights into a better understanding of how alcohol can influence or alter expectations when it comes to sexual encounters while alcohol is present (Celio et al. 2016a). Alcohol inhibits the sense of morality, empathy, and other cognitive responses that appear when in a sexual situation. Alcohol-related sex expectancies hypothesize people's general expectancies regarding sex after a moderate amount of alcohol has been consumed. The theory suggests potential sexual impressions and beliefs for perpetrators when alcohol is present for themselves, for women, and for men (Abbey et al. 1999). Alcohol-related sex expectancies are a type of positive expectancy, due to the

research proposing that people have positive expectations when engaging in sexual activity (Celio et al. 2016a).

Research found that women with higher sex-related alcohol expectancies or more positive expectancies regarding sex and who consumed higher levels of alcohol were associated with sexual aggression perpetration (Benson, Gohm and Gross 2007; Waterman and Lefkowitz 2020). When perpetrators are consuming or around alcohol, their perceptions of women and their sexual desires are affected by the alcohol. Thoughts that women are more inviting to sexual advances when they are drinking, or when alcohol is present cause perpetrators to use this belief to facilitate their likelihood to perpetrate sexual aggression (George et al. 1995; Kingree and Thompson 2015a). Research suggests that some men believe that if a woman has been drinking, she will be more accepting of sexual advances, despite what the women might be thinking or feeling (Abbey 2011; Abbey et al. 1999). Additional research suggests that women with higher alcohol expectancies would also have heavy episodic drinking and are more likely to be sexually victimized (Tyler, Schmitz and Adams 2015).

Positive expectancies include sexual enhancement and relaxation. As previously stated, men who report reported high levels of alcohol consumption were positively associated with high positive expectancies for sexual enhancement (Fachini and Furtado 2013). Research suggests that there are two types of positive expectancies relating to sexual enhancement that are associated with sexual aggression perpetration, sex drive and sexual affect (Patrick and Maggs 2009). Specifically, research has found that in a population of 218 first-year college students, there were significant interactions for alcohol use and positive expectancies for sex, indicating people are more likely to have sex after drinking. Since we know alcohol use is a predictor for sexual aggression (Abbey 2011), the belief that people are more likely to have sex after drinking

is associated with the likelihood to perpetrate (Benson, Gohm and Gross 2007). Research also suggest that men who reported greater expectancies for self and for other women for sexual affect and sex drive, also reported higher sexual aggression perpetration, but not when reporting on other men (Florimbio et al. 2018).

Sex drive is a predicting variable for sexual aggression perpetration (Celio et al. 2016a; Patrick and Maggs 2009). Sex drive as an expectancy is the belief that when drinking alcohol sex drive increases. Research suggests that among first-year college students, alcohol use and sexual behavior have a positive association with sex drive (Patrick and Maggs 2009). Men who reported high alcohol-related expectancies for sex drive were associated with facilitating sexual behaviors. This conclusion reinforced beliefs that alcohol use is associated with an increase in sex drive for men, and men believe this is the same for women as well. Research found that in a sample of 534 undergraduate students, alcohol use had a positive association with sending and requesting sexts via the sex drive expectancies (Florimbio et al. 2018). Since sexting is a form of sexual aggression if someone does not consent to the images, this work suggests that sex drive expectancies are a predictor of sexual aggression. These findings demonstrated consistencies in associations of alcohol use and increased sexual desires, aligning with the predicting expectancy.

Expectancies related to sexual affect are also associated with sexual aggression perpetration (Celio et al. 2016b; Patrick and Maggs 2009). Sexual affect expectancy is the belief that alcohol contributes to a person's affective state in sexual relationships, thus coming off as more affectionate or romantic (Patrick and Maggs 2009). Men are more likely to report behaviors predicting perpetration due to the belief that alcohol makes both themselves and other women want to be intimate and affectionate. Similar to the findings on sex drive, research suggests that for a population of first-year college students, alcohol use and sexual behavior were

associated by the expectancies of sexual affect (Patrick and Maggs 2009). The research displayed that having strong beliefs of alcohol's enhancement of sexual affect and sexual drive predicted a higher likelihood of sexual behaviors occurring. An understanding of this theory has been used to create more comprehensive prevention programs when alcohol is present (Senn et al. 2022; Zinzow et al. 2018), but further exploration into the relationship between alcohol-related sex expectancies and sexual aggression perpetration is needed.

***Impulsivity may moderate the association between expectancies and sexual aggression.***

Although alcohol research indicates alcohol expectancies for sex drive and sexual affect is related to sexual aggression perpetration (Rapoza and Drake 2009), less is known about what moderates this association. One factor may be impulsivity. Impulsivity is any action that is made without assessing the potential risks and all consequences that are involved in the situation, referring to motor and cognitive behaviors (Herman and Duka 2019). The UPPS-P Impulsivity Scale assesses the heterogeneity of impulsivity-linked traits. These traits present a multifaceted approach to understanding how impulsivity can be classified, with each facet representing a group of common behaviors (Whiteside et al. 2005). The UPPS-P Impulsivity Scale is a self-reported measure that is divided into five key facets used in assessing different pathways to impulsive behavior. The five facets used to examine a person's levels of impulsivity are lack of perseverance, lack of premeditation, negative urgency, positive urgency, and sensation-seeking (Lynam et al. 2006). Each facet contains themed behavioral elements that can act as a blanket for each impulsivity-linked trait (Derefinko et al. 2011). Lack of Perseverance is attributed to a lack of desire to complete tasks that can be boring. Lack of Premeditation is acting without consideration of the consequences. Sensation seeking is the interest in potentially dangerous experiences or exciting activities. Urgency is described as acting rashly based on one's emotions.



Urgency as it applies to impulsivity is broken up into two categories, where negative urgency refers to acting based on negative emotions (anger, jealousy, etc.) while positive urgency refers to acting based on positive emotions (happiness, excitement, etc.) (Lynam et al. 2006).

Prior research has found that impulsivity is associated with sexual aggression perpetration (Mouilso, Calhoun and Rosenbloom 2013). Qualitative research for incarcerated men displayed themes that those convicted of sexual crimes reported their actions being due to a lack of control of their actions (Ros et al. 2020). Further, research suggests that only some facets of impulsivity, including negative urgency, have a positive association with sexual aggression perpetration (Bresin 2019). Further, perpetrators of sexual aggression had reported greater levels of negative urgency reported within college samples of men (Bresin 2019; Derefinko et al. 2011). Researchers also found that negative urgency moderated the association between compulsive sexual behaviors (CSB) and unsolicited sexting, a form of sexual violence (Garner et al. 2022). Using the deidentified data from their medical records, they were able to find that negative urgency moderated the relationship between CSB and unsolicited sexting, suggesting the creation of interventions addressing negative urgency.

Another study examined the association between heavy drinking and sexual intimate partner violence, mediated by negative urgency (Oesterle, Eckhardt and Parrott 2023). This study found that positive urgency mediated the relationship between problematic drinking and sexual intimate partner violence. Collectively, the evidence suggests that negative urgency is associated with sexual aggression perpetration. However, no study was found addressing situations where alcohol is present and associated with reported sexual aggression perpetration but moderated by levels of impulsivity. So far, very little research has addressed the role of impulsivity and alcohol-related sexual aggression. Despite the importance of impulsivity and alcohol in sexual

aggression, there is a paucity of evidence linking these two variables although there is an overlap in the effects that are related to sexual aggression. It remains unclear how negative urgency functions in this context and needs to be examined.

### ***The Present Study***

Sexual aggression perpetration continues to be a major public health issue, where women statistically are more likely to be survivors, while men are more likely to be perpetrators. Current research fails to assess the moderating roles of impulsivity on the relationship between alcohol-related sex expectancies and sexual aggression perpetration. Therefore, this is an area of study that needs to be addressed and could be relevant in future perpetration interventions. This present study aims to examine if the association between alcohol-related sex expectancies (common beliefs or expectations regarding the effects of alcohol on the sexual experience) for sex for self (AES) and for women (AEW): sex drive and sexual affect and sexual aggression perpetration are moderated by the negative urgency. Further, while previous literature conducted studies on the populations present at college campuses, this study aims to show similar correlations when applying these theories to a community sample of men. The following hypotheses are advanced:

*Hypothesis 1:* It is hypothesized that sex drive and sexual affect alcohol-related sex expectancies for self (AES) and perception of women (AEW) will be positively associated with sex aggression.

*Hypothesis 2:* It is hypothesized that sex drive and sexual affect AES and AEW will be associated with sexual aggression among men who reported higher, compared to lower, levels of negative urgency.

## **Methods**

The present study was drawn from a larger laboratory-based study on acute alcohol intoxication and bystander intervention in a sample of community men in Metro Atlanta (Leone and Parrott 2019). All participants who presented to the laboratory reported alcohol consumption during the past year (see below). Hypotheses tested herein are novel and the analytic plan was developed to address these aims.

### *Participants*

Participants were recruited via online advertisements and through flyers that requested potential participants to telephone the laboratory. Upon calling the lab, participants received a brief description of the study, the time commitment to the study, and compensation. Interested participants were screened by telephone for eligibility.

Eligibility criteria for the study included men between the ages of 21-30, reporting that they had consumed between 5-6 standard drinks in a single occasion on at least three days in the past year, they did not know anyone who participated in the study, and they were not seeking any additional help for alcohol-related or substance abuse disorder. Participants who reported having a psychiatric disorder, a serious head injury, or a condition in which alcohol is medically contraindicated were also excluded.

Upon arrival to the laboratory, participants' age was confirmed, and self-reported drinking patterns were re-assessed. This resulted in the final sample of 153 men (age  $M = 24.07$ ,  $SD = 2.62$ ), 52.7% of whom had no college background. Most participants identified as either White (55.3%) or Black/African American (24%) and had never been married (86.2%). This study was approved by the university's Institutional Review Board.

### *Measures*

*Demographic Characteristics.* This questionnaire battery collected participants' demographic characteristics. Characteristics included age, years of education, current education status, race, marital status, religion, income, and sexual identity.

*Alcohol Expectancies for Sex.* The Alcohol Expectancies Regarding Sex, Aggression, and Sexual Vulnerability Questionnaire (Leigh 1990) is a 75-item questionnaire self-evaluating beliefs, thoughts, and feelings pertaining to sex when alcohol is present. Participants were asked to rate how alcohol might affect behaviors for themselves, other men, and other women when a moderate amount of alcohol is present (enough to produce a feeling of being “buzzed” or intoxicated). Ratings for themselves, other men, and other women were three different subscales, allowing researchers to determine an overall expectancy score. Items included subscale components for aggression (e.g., “It is easy for me to have a fight or argument”), sexuality (e.g., “I am interested in having sex”), fear of victimization (e.g., “I am likely to be forced by my date to have sex”), and gender-stereotyped beliefs (e.g., “Men are short-tempered,” “Women are likely to be loving”). For the purpose of this study, only sex drive and sexual affect subscales were used, with a Cronbach Coefficient ranging from .82 to .96. Participants rated items on a 1 (Not at all) to 5 (Very Much) scale. Validation of the scale was obtained by comparison of each subscale component listed above (aggression, alcohol expectancies, sexuality, etc.) with comprehensive scales used in previous research to analyze the presence of these components (Abbey et al. 1999).

*Impulsivity.* The UPPS-P Impulsivity scale is 59-item questionnaire assessing factors that can lead to impulsive behavior including (Whiteside and Lynam 2001): negative urgency (e.g. “When I feel bad, I will often do things I later regret in order to make myself feel better now”), positive urgency (e.g. “I tend to lose control when I am in a great mood”), sensation seeking (e.g.

“I generally seek new and exciting experiences and sensations”), lack of perseverance (e.g. “I tend to give up easily”), and lack of premeditation (e.g. “I quite enjoy taking risks”). Pertinent to the present study, we used the negative urgency subscale. Participants rate items on a 1 (Agree Strongly) to 4 (Disagree Strongly), with higher scores indicating high levels of impulsivity. Certain items in the scale (i.e., “I usually think carefully before doing something”) were reverse coded such that higher scores indicate higher levels of impulsivity. Each subscale has a calculated total subscale score and mean subscale score that indicates higher levels of impulsivity for each specific facet. (Cyders et al. 2014). This measure demonstrated good reliability ( $\alpha > .85$ ) (Cyders et al. 2014) in each scale for each trait, consistent with the urgency subscale in this sample ( $\alpha = .90$ ). The validity of the measures was evaluated and displayed strong correlations (Whiteside et al. 2005).

*Sexual Aggression Perpetration.* Sexual violence perpetration was measured using the Sexual Experience Survey-Short Form Perpetration (Koss et al. 2007). The Sexual Experience Survey- Perpetration is a 35-item questionnaire used to assess the perpetration of unwanted sexual acts. Participants are asked to rate how many times they have perpetrated a range of sexually aggressive behaviors (e.g., “I put my penis (men only), or I put my fingers or objects (all respondents) into a woman’s vagina without her consent by: Threatening to physically harm me or someone close to me”) in the past 12 months and since they were the age of 14. The questionnaire assesses tactics associated with sexual aggression perpetration including verbal pressure(e.g. “Telling lies, threatening to end the relationship, ... or continuing verbally pressuring them after they said they didn’t want to”), verbal criticism (e.g. “Showing displeasure, criticizing their sexuality or attractiveness,...or continually verbally pressuring them after they said that didn’t want to”), incapacitation (e.g. “Taking advantage when they were too drunk or

out of it to stop what was happening”), physical force (e.g. “ Using force, for example holding them down with my body weight, pinning their arms, or having a weapon”), and physical threats (e.g. “Threatening to physically harm them or someone close to them”). Participants were asked to choose how many times they had committed an act from 0 (never) to 3 (three or more times). Consistent with recommendations for scoring the Sexual Experience Survey, we used a dichotomous scoring (0= no perpetration, 1= perpetration) (Anderson, Cahill and Delahanty 2017).

### **Data Analytic Plan**

All analyses were conducted in SPSS version 28. Prior to testing hypotheses, descriptive statistics were conducted. Scores for impulsivity and alcohol-related sex expectancies were standardized. Correlations were analyzed between sex drive and sexual affect alcohol expectancies for self and women, negative urgency, and sexual aggression. Interactions were analyzed between alcohol-related sex expectancies for women and self and negative urgency. Interaction terms were created from the cross-product of the standard scores. To test the hypotheses, a binary logistic regression was used wherein sexual aggression perpetration was the outcome. In Step 1 of the model, impulsivity and alcohol-related sex expectancies for self, and women: sex drive and sexual affect were entered. In Step 2 of the model, the alcohol expectancies x impulsivity interaction were entered; Sex Drive AEW X Negative Urgency, Sexual Affect AEW X Negative Urgency, Sex Drive AES X Negative Urgency, Sexual Affect AES X Negative Urgency.

## **Results**

### ***Descriptive Statistics***

Descriptive statistics and correlations between the variables of the study are presented in Table 1. Sexual affect AES and negative urgency were significantly and positively correlated ( $p = .04$ ,  $r = .16$ ). No other correlations were detected in the sample.

### ***Test of Hypothesis***

The results of the model are presented in Table 2. For the model with alcohol expectancies for self, Step 1 of the model was not significant ( $\chi^2 = 4.66$ ,  $p = .199$ , OR = .29) and had no significant main effects. Step 2 of the model was also not significant ( $\chi^2 = 1.874$ ,  $p = .392$ , OR = .29). Contrary to Hypothesis 1, there was not a significant association between sex drive or sexual affect AES and sexual aggression perpetration. In Step 2 of the model, contrary to Hypothesis 2, the Sexual Affect AES X Negative urgency [OR = .68,  $p = .202$ , (CI 95%: .37, 1.23)] and Sex Drive AES X Negative Urgency [OR = 1.24,  $p = .444$ , (CI 95%: .71, 2.17)] were not significant.

For the model with alcohol expectancies for women, for Step 1, the model was not significant ( $\chi^2 = 2.52$ ,  $p = .472$ , OR = .29) and had no significant main effects. In Step 2 of the model ( $\chi^2 = .154$ ,  $p = .926$ , OR = .29), contrary to Hypothesis 2, the Sexual Affect AEW x Negative Urgency [OR = .88,  $p = .758$ , (CI 95%: .39, 1.99)] and Sex Drive AEW X Negative Urgency [OR = 1.06,  $p = .866$ , (CI 95%: .52, 2.20)] were not significant.

### ***Exploratory Post Hoc Analyses***

Due to a lack of significance found in the interaction between alcohol-related sex expectancies for self and women: sex drive and sexual affect, and negative urgency, a post hoc analysis examined other potential moderators of the alcohol expectancies for sex-to-sexual aggression perpetration relationship. To further explore how facets of impulsivity moderate the relationship between alcohol expectancies of self and women and sexual aggression perpetration,

we decided to test one other facet of impulsivity with strong associations with sexual aggression perpetration based on the literature (Mouilso, Calhoun and Rosenbloom 2013), sensation seeking, which is an openness to new and potentially dangerous experiences in pursuit of a feeling. Specifically, research has found in a mixed sample of 1,220 adolescents (ages 12 to 20), sensation seeking was positively associated with sexual aggression perpetration (Young et al. 2009). Male students who reported high levels of impulsivity related to sensation seeking, compared to women, had a positive association with sexual aggression perpetration. We hypothesized that:

*Post Hoc Hypothesis 1:* Sensation seeking will moderate the relationship between sex drive and sexual affect alcohol expectancies for self and women and sexual aggression perpetration, whereas higher reported levels of sensation seeking will be associated with a higher likelihood of perpetrating sexual aggression.

*Post Hoc Analysis.* Analyses were conducted in SPSS v 28. Prior to testing, sex drive and sexual affect alcohol expectancies for self and women, and sensation seeking were standardized. An interaction term was created by obtaining the cross-product of the standardized scores. To test the post hoc hypothesis, two separate linear regression models were used where sexual aggression perpetration was the outcome. In Step 1 of the model, the alcohol expectancies (AEW & AES for sex drive and sexual affect) and the sensation seeking main effects were entered. In Step 2 of the model the alcohol expectancy x sensation seeking interaction were entered; Sex Drive AES X Sensation Seeking, Sexual Affect AES X Sensation Seeking, Sex Drive AEW X Sensation Seeking, Sexual Affect AEW X Sensation Seeking.

For the model examining AES (see Table 4), Step 1 of the model was not significant ( $\chi^2 = 4.16, p = .125, OR = .29$ ) and there were no significant main effects. In Step 2 of the model ( $\chi^2$



= 4.16,  $p = .125$ , OR = .29), the Sex Drive AES x sensation seeking [OR = .97,  $p = .922$ , (CI 95%: .53, 1.78)] and Sexual Affect AES x sensation seeking [OR = .64,  $p = .156$ , (CI 95%: .35, 1.18)] interactions were not significant.

For the model examining alcohol expectancies for sex for women (see Table 5), Step 1 of the model was not significant ( $\chi^2 = 1.45$ ,  $p = .693$ , OR = .29) and there were no significant main effect. Step 2 of the model was significant ( $\chi^2 = 13.85$ ,  $p < .001$ , OR = .29). In Step 2 of the model, the Sexual Affect AEW x sensation seeking [OR = 1.68,  $p = .23$ , (CI 95%: .72, 3.92)] were not significant. However, the Sex Drive AEW x sensation seeking [OR = .30,  $p = .004$ , (CI 95%: .14, .69)] interaction was significant (see Table 5). Probing of the interaction indicated that the association between sex drive AEW and sexual perpetration was significant and positive when men reported lower ( $b = 1.43$ ,  $p = .017$ ), but not higher ( $b = -.95$ ,  $p = .069$ ), levels of sensation seeking (see Figure 1).

## Discussion

Sexual aggression perpetration is a serious public health issue, with women continuing to be at risk every day. This study examined the moderating role of negative urgency on the association between alcohol expectancies for sex for both self and other women and sexual aggression perpetration. It was hypothesized that (1) one's own perception and perception of other women's alcohol-related sex expectancies for sex drive and sexual affect would be positively associated with sexual aggression perpetration and (2) that alcohol-related sex expectancies for sex drive and sexual affect would be associated with sexual aggression perpetration among men who reported higher, compared to lower, levels of negative urgency.

The hypotheses were not supported. While prior research found that there was a strong association between negative urgency and sexual aggression perpetration (Bresin 2019), the

current study's findings did not support the consistencies in the literature. Research also suggests that there is a strong association between alcohol use and negative urgency (McCarty et al. 2017). The null findings may be due to differences between prior studies and the current research, such as the study population or the way perpetration was measured. Prior research was conducted in study populations of college men, whereas the current study assessed a sample of community men. It may be that negative urgency is a more important correlate of sexual aggression among college men. Research has found that when using a scaled response format to assess sexual aggression perpetration, men self-reported significantly more incidents of perpetration in comparison to reporting on a dichotomous scale (Anderson and Cuccolo 2022). Although a dichotomous scale is most commonly used when assessing perpetration, perhaps using a different measure for perpetration could indicate more self-reported sexual aggression perpetration in a sample of community men.

Contrary to Hypothesis 2, the interaction between sex drive and sexual affect AES and AEQ and negative urgency was not significantly associated with sexual aggression perpetration in this community sample of men. It may be that there are other potential moderating variables, such as the other facets of impulsivity. For example, research has found an association between sensation seeking and sexual aggression perpetration (Bresin 2019; Mouilso, Calhoun and Rosenbloom 2013). In a college sample of 304 men, sensation seeking was positively associated with sexual aggression perpetration (Mouilso, Calhoun and Rosenbloom 2013). However, when examining the differences between perpetrators and nonperpetrators, sensation-seeking levels did not differ between both groups. Research also found in a study of 1,220 adolescents, both male and female, ages 12-20, that male students had high sensation-seeking related to sexual aggression perpetration (Young et al. 2009). The study also had no differences between the

perpetrator and nonperpetrator groups, but results were limited in generalizability due to the perpetration sample being mixed (both male and female).

In line with prior research, a post hoc analysis found that sex drive AEW interacted with sensation seeking to predict sexual aggression perpetration. Specifically, the relationship sex drive AEW sexual aggression perpetration was significant and positive among those who reported lower, but not higher, levels of sensation seeking. In other words, participants who reported greater sex drive AEW and high levels of sensation seeking were less likely to report perpetrating sexual aggression than men who had lower sex drive AEW and high levels of sensation seeking. It may be that men who have higher levels of sensation seeking, or who enjoy participating in activities based on chasing a feeling regardless of the consequence and believe that women's sex drives are higher when alcohol is present are less likely to perpetrate sexual aggression because they do not view it as "thrilling". Conversely, when men have higher levels of sensation seeking (i.e., are seeking a thrill) and they believe women's sex drives are lower when drinking (i.e., women are not as interested in sex), forced sex may be a way to seek a thrilling experience. In other words, these men may be interested in the thrill that comes from engaging in sexual behaviors with a disinterested person. This finding is in line with a recent study that found sensation seeking was positively correlated with sexual risk-taking and was also positively associated with sexual coercion (a tactic of perpetration) (Garner, Spiller and Williams 2020).

### ***Limitations of the Study/ Future Directions***

The present study had several limitations. First, these results cannot be generalized to all community men across the United States. While this is a random sample of community men, the research was limited in generalizability and findings may not be applicable for men over 30

years of age or rural areas. This study used self-report data which is subject to response bias and under reporting of sexual violence perpetration. Prior research indicates that men are more likely to report lower rates of perpetration if asked directly even if they have perpetrated (Abbey and McAuslan 2004). Next, the study used cross-sectional data limiting the ability to draw causal conclusions. To examine the causality between alcohol expectancies for sex and sexual perpetration (moderated by impulsivity), future research is needed using experimental approaches. More recent research found that the Sexual Initiation Strategy Scale has been used to assess perpetration in community samples of men (Peterson 2023), and could be used in future studies using community samples. Laboratory paradigms can be used to measure alcohol expectancies (Wardell et al. 2012) and situational scenarios for perpetration. This study was also limited because we assumed that the association between negative urgency and sexual aggression perpetration would be mirrored in a community sample of men (especially one containing college men).

Finally, because this study used secondary data, different moderators could not be explored in post hoc analyses, ultimately limiting our understanding of moderators of the alcohol-related sex expectancies and sexual aggression perpetration relationships. Further research should seek to examine other moderators that could influence the relationship between alcohol-related sex expectancies and sexual aggression perpetration. This includes assessing the role of drinking patterns (men who casually drink versus have heavy episodic drinking episodes) effects on alcohol-related sex expectancies (Jones, Corbin and Fromme 2001) or other moderating and mediating factors, such as empathy, etc.

### ***Public Health Implications***

Programming and interventions for sexual aggression perpetration are vital to reducing the rates of perpetration on college campuses. On university campuses, programs teaching women to recognize sexual assault risk and resist coercive men have resulted in reductions in rates of victimization up to 24 months post-intervention (Senn et al. 2020). However, effective prevention programs for potential perpetrators are limited and have yet to demonstrate effects longer than 6 months (Salazar et al. 2014). The present study shed light on a relationship between alcohol-related sex expectancies and sexual aggression perpetration, with influential factors related to sensation-seeking. Data from this study indicates that sensation-seeking moderates the relationship between sex drive AEW and sexual aggression perpetration, indicating a need to reduce thrill-seeking behaviors related to sex, particularly among men with lower sex drive AEW. Data from the study also indicates that men with lower levels of sensation seeking and high alcohol expectancies for women for sex drive predicted perpetration, indicating a need to reduce alcohol expectancies for women pertaining to sex for men who are not seeking a thrill. Programming targeting and modifying behaviors related to sensation seeking or other facets of impulsivity can reduce the impact of alcohol-related sex expectancies on sexual aggression perpetration. Potential interventions for perpetrators in the near future could focus on identifying the behaviors of sexual aggression that are thrilling to men and communicating strategies for preventing these behaviors, especially when alcohol is involved. These interventions might differ based on the group of men that are being served, whereas programs with a classroom-like structure might be more efficient for college men. Interventions for perpetrators can also include interactive materials and scenarios for men based on the findings seen in this study, as these materials help with memory and practice for the new information.

Negative public health outcomes resulting from facets of impulsivity can mitigate outcomes of sexual aggression perpetration in the near future.

## References

- [CDC], Center for Disease Control and Prevention. 2022. "Fast Facts: Preventing Sexual Violence."
- Abbey, A. 2011. "Alcohol's role in sexual violence perpetration: theoretical explanations, existing evidence and future directions." *Drug Alcohol Rev* 30(5):481-9.
- Abbey, A., and P. McAuslan. 2004. "A longitudinal examination of male college students' perpetration of sexual assault." *J Consult Clin Psychol* 72(5):747-56.
- Abbey, Antonia, Angela J Jacques-Tiura, and James M LeBreton. 2011. "Risk factors for sexual aggression in young men: An expansion of the confluence model." *Aggressive behavior* 37(5):450-64.
- Abbey, Antonia, Pam McAuslan, Lisa Thomson Ross, and Tina Zawacki. 1999. "Alcohol expectancies regarding sex, aggression, and sexual vulnerability: Reliability and validity assessment." *Psychology of Addictive Behaviors* 13(3):174.
- Abbey, Antonia, M Colleen McDaniel, and Zunaira Jilani. 2022. "Alcohol and men's sexual aggression: Review of research and implications for prevention." *Engaging boys and men in sexual assault prevention*:183-210.
- Alexander, Apryl A. 2019. "Confluence model of sexual aggression in college males: examining polyvictimization." *Violence and Gender* 6(2):139-41.
- Anderson, R. E., E. L. Goodman, and S. S. Thimm. 2020. "The Assessment of Forced Penetration: A Necessary and Further Step Toward Understanding Men's Sexual Victimization and Women's Perpetration." *J Contemp Crim Justice* 36(4):480-98.
- Anderson, RaeAnn E, and Kelly Cuccolo. 2022. "An experimental test of the impact of varying questionnaire response format on prevalence rates for sexual violence victimization and perpetration." *Journal of Interpersonal Violence* 37(23-24):NP23541-NP62.

- Anderson, RaeAnn E., Shawn P. Cahill, and Douglas L. Delahanty. 2017. "Initial Evidence for the Reliability and Validity of the Sexual Experiences Survey-Short Form Perpetration (SES-SFP) in College Men." *Journal of Aggression, Maltreatment & Trauma* 26(6):626-43.
- Benson, Brenda J., Carol L. Gohm, and Alan M. Gross. 2007. "College Women and Sexual Assault: The Role of Sex-related Alcohol Expectancies." *Journal of Family Violence* 22(6):341-51.
- Bresin, Konrad. 2019. "Impulsivity and aggression: A meta-analysis using the UPPS model of impulsivity." *Aggression and violent behavior* 48:124-40.
- Celio, M. A., J. MacKillop, A. J. Caswell, N. R. Mastroleo, C. W. Kahler, N. P. Barnett, S. M. Colby, D. Operario, and P. M. Monti. 2016a. "Interactive Relationships Between Sex-Related Alcohol Expectancies and Delay Discounting on Risky Sex." *Alcohol Clin Exp Res* 40(3):638-46.
- Celio, Mark A, James MacKillop, Amy J Caswell, Nadine R Mastroleo, Christopher W Kahler, Nancy P Barnett, Suzanne M Colby, Don Operario, and Peter M Monti. 2016b. "Interactive relationships between sex-related alcohol expectancies and delay discounting on risky sex." *Alcoholism: Clinical and Experimental Research* 40(3):638-46.
- Cyders, Melissa A., Andrew K. Littlefield, Scott Coffey, and Kenny A. Karyadi. 2014. "Examination of a short English version of the UPPS-P Impulsive Behavior Scale." *Addictive Behaviors* 39(9):1372-76.
- Darkes, Jack, and Mark S Goldman. 1993. "Expectancy challenge and drinking reduction: experimental evidence for a mediational process." *Journal of consulting and clinical psychology* 61(2):344.
- Derefinko, K., C. N. DeWall, A. V. Metze, E. C. Walsh, and D. R. Lynam. 2011. "Do different facets of impulsivity predict different types of aggression?" *Aggress Behav* 37(3):223-33.



- Dworkin, Emily R, Suvarna V Menon, Jonathan Bystrynski, and Nicole E Allen. 2017. "Sexual assault victimization and psychopathology: A review and meta-analysis." *Clinical psychology review* 56:65-81.
- Edgar, Nicolette C., and Robert G. Knight. 1994. "Gender and alcohol-related expectancies for self and others." *Australian Journal of Psychology* 46(3):144-49.
- Fachini, Alexandre, and Erikson Felipe Furtado. 2013. "Alcohol use and drinking expectations among college students: an analysis of sex differences." *Psicologia: Teoria e Pesquisa* 29:421-28.
- Florimbio, Autumn Rae, Meagan J. Brem, Alisa R. Garner, Hannah L. Grigorian, and Gregory L. Stuart. 2018. "Alcohol-related sex expectancies explain the relation between alcohol use and sexting among college students." *Computers in Human Behavior* 88:205-09.
- Garner, Alisa R., Meagan J. Brem, Ryan C. Shorey, Julie Hamlin, and Gregory L. Stuart. 2022. "Negative urgency moderates the association between compulsive sexual behaviors and sending unsolicited sexts among men in residential treatment for substance use disorders." *Computers in Human Behavior* 136:107385.
- Garner, Alisa R., Laura C. Spiller, and Patrick Williams. 2020. "Sexual Coercion in the College Population: A Form of Risk-Taking Behavior." *Journal of Interpersonal Violence* 35(23-24):5276-91.
- George, William H, Kelly L Cue, Peter A Lopez, Leif C Crowe, and Jeanette Norris. 1995. "Self-Reported Alcohol Expectancies and Postdrinking Sexual Inferences About Women 1." *Journal of Applied Social Psychology* 25(2):164-86.
- Herman, A. M., and T. Duka. 2019. "Facets of impulsivity and alcohol use: What role do emotions play?" *Neurosci Biobehav Rev* 106:202-16.

- Huntington, Charlie, Deborah N Pearlman, and Lindsay Orchowski. 2022. "The confluence model of sexual aggression: An application with adolescent males." *Journal of Interpersonal Violence* 37(1-2):623-43.
- Jones, Barry T, Will Corbin, and Kim Fromme. 2001. "A review of expectancy theory and alcohol consumption." *Addiction* 96(1):57-72.
- Jones, Sandra C, and Chloe S Gordon. 2017. "A systematic review of children's alcohol-related knowledge, attitudes and expectancies." *Preventive medicine* 105:19-31.
- Kingree, J. B., and M. Thompson. 2015a. "A comparison of risk factors for alcohol-involved and alcohol-uninvolved sexual aggression perpetration." *J Interpers Violence* 30(9):1478-92.
- Kingree, JB, and Martie Thompson. 2015b. "A comparison of risk factors for alcohol-involved and alcohol-uninvolved sexual aggression perpetration." *Journal of Interpersonal Violence* 30(9):1478-92.
- Koss, Mary P, Antonia Abbey, Rebecca Campbell, Sarah Cook, Jeanette Norris, Maria Testa, Sarah Ullman, Carolyn West, and Jacquelyn White. 2007. "Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization." *Psychology of Women Quarterly* 31(4):357-70.
- Lee, Christine M, Anne M Fairlie, Jason J Ramirez, Megan E Patrick, Jeremy W Luk, and Melissa A Lewis. 2020. "Self-fulfilling prophecies: Documentation of real-world daily alcohol expectancy effects on the experience of specific positive and negative alcohol-related consequences." *Psychology of Addictive Behaviors* 34(2):327.
- Leigh, Barbara C., and Alan W. Stacy. 1993. "Alcohol outcome expectancies: Scale construction and predictive utility in higher order confirmatory models." *Psychological Assessment* 5(2):216-29.
- Leigh, Barbara Critchlow. 1990. "The relationship of sex-related alcohol expectancies to alcohol consumption and sexual behavior." *British journal of addiction* 85(7):919-28.

- Leone, R. M., and D. J. Parrott. 2019. "Acute Alcohol Intoxication Inhibits Bystander Intervention Behavior for Sexual Aggression Among Men with High Intent to Help." *Alcohol Clin Exp Res* 43(1):170-79.
- Lynam, Donald R, Gregory T Smith, Stephen P Whiteside, and Melissa A Cyders. 2006. "The UPPS-P: Assessing five personality pathways to impulsive behavior." *West Lafayette, IN: Purdue University* 10.
- Malamuth, N. M., R. J. Sockloskie, M. P. Koss, and J. S. Tanaka. 1991. "Characteristics of aggressors against women: testing a model using a national sample of college students." *J Consult Clin Psychol* 59(5):670-81.
- Malamuth, Neil M. 2003. "Criminal and noncriminal sexual aggressors: Integrating psychopathy in a hierarchical-mediational confluence model." *Annals of the New York Academy of Sciences* 989(1):33-58.
- Marlatt, Gordon Alan, and Damaris J Rohsenow. 1980. "Cognitive processes in alcohol use: Expectancy and the balanced placebo design." *Advances in substance abuse: Behavioral and biological research* 1:159-99.
- Martin, S. L., B. S. Fisher, M. C. D. Stoner, C. F. Rizo, and M. L. Wojcik. 2022. "Sexual assault of college students: victimization and perpetration prevalence involving cisgender men, cisgender women and gender minorities." *J Am Coll Health* 70(2):404-10.
- McCarty, Kayleigh N, David H Morris, Laura E Hatz, and Denis M McCarthy. 2017. "Differential associations of UPPS-P impulsivity traits with alcohol problems." *Journal of studies on alcohol and drugs* 78(4):617-22.
- Mouilso, E. R., K. S. Calhoun, and T. G. Rosenbloom. 2013. "Impulsivity and sexual assault in college men." *Violence Vict* 28(3):429-42.

- Muehlenhard, C. L., Z. D. Peterson, T. P. Humphreys, and K. N. Jozkowski. 2017. "Evaluating the One-in-Five Statistic: Women's Risk of Sexual Assault While in College." *J Sex Res* 54(4-5):549-76.
- Nguyen, David, and Michele R Parkhill. 2014. "Integrating attachment and depression in the confluence model of sexual assault perpetration." *Violence against women* 20(8):994-1011.
- Oesterle, Daniel W., Christopher I. Eckhardt, and Dominic J. Parrott. 2023. "Impulsivity and Reactive-Proactive Aggression as Mechanisms of Alcohol-Related Sexual Intimate Partner Violence Perpetration among Romantic Partners." *Substance Use & Misuse* 58(13):1761-70.
- Parkhill, M. R., and A. Abbey. 2008. "DOES ALCOHOL CONTRIBUTE TO THE CONFLUENCE MODEL OF SEXUAL ASSAULT PERPETRATION?" *J Soc Clin Psychol* 27(6):529-54.
- Patrick, Megan E, and Jennifer L Maggs. 2009. "Does drinking lead to sex? Daily alcohol–sex behaviors and expectancies among college students." *Psychology of Addictive Behaviors* 23(3):472.
- Peterson, Zoe D. 2023. "Examining the psychometric properties of the Sexual Initiation Strategies Scale (SISS): a new self-report measure of sexual aggression perpetration history." *The Journal of Sex Research* 60(1):91-113.
- Rapoza, Kimberly A, and Jennifer E Drake. 2009. "Relationships of hazardous alcohol use, alcohol expectancies, and emotional commitment to male sexual coercion and aggression in dating couples." *Journal of studies on alcohol and drugs* 70(1):55-63.
- Ray, Travis N, and Michele R Parkhill. 2023. "Components of hostile masculinity and their associations with male-perpetrated sexual aggression toward women: A systematic review." *Trauma, Violence, & Abuse* 24(2):355-68.
- Ros, Laura, Carmen Zabala, Dulce Romero-Ayuso, Verónica Jimeno, and Jorge J Ricarte. 2020. "The barratt impulsiveness scale-11 in community and incarcerated samples: motor and

- nonplanning impulsivity effects on criminal recidivism." *Criminal Justice and Behavior* 47(8):996-1013.
- Russell, Tiffany D, and Alan R King. 2020. "Distrustful, conventional, entitled, and dysregulated: PID-5 personality facets predict hostile masculinity and sexual violence in community men." *Journal of Interpersonal Violence* 35(3-4):707-30.
- Salazar, Laura F, Alana Vivolo-Kantor, James Hardin, and Alan Berkowitz. 2014. "A web-based sexual violence bystander intervention for male college students: Randomized controlled trial." *Journal of medical Internet research* 16(9):e3426.
- Senn, Charlene Y, Paula Barata, Misha Eliasziw, Karen Hobden, H Lorraine Radtke, Wilfreda E Thurston, and Ian R Newby-Clark. 2022. "Sexual assault resistance education's benefits for survivors of attempted and completed rape." *Women & Therapy* 45(1):47-73.
- Senn, Charlene Y., Misha Eliasziw, Karen L. Hobden, Paula C. Barata, H. Lorraine Radtke, Wilfreda E. Thurston, and Ian R. Newby-Clark. 2020. "Testing a Model of How a Sexual Assault Resistance Education Program for Women Reduces Sexual Assaults." *Psychology of Women Quarterly* 45(1):20-36.
- Testa, M., and M. J. Cleveland. 2017. "Does Alcohol Contribute to College Men's Sexual Assault Perpetration? Between- and Within-Person Effects Over Five Semesters." *J Stud Alcohol Drugs* 78(1):5-13.
- Trottier, Dominique, Kévin Nolet, Massil Benbouriche, Véronique Bonneville, Fleurette Racine-Latulippe, and Sophie Bergeron. 2021. "Sexual violence perpetration and victimization: Providing prevalence rates for understudied populations." *Violence and Gender* 8(2):59-66.
- Tyler, Kimberly A., Rachel M. Schmitz, and Scott A. Adams. 2015. "Alcohol Expectancy, Drinking Behavior, and Sexual Victimization Among Female and Male College Students." *Journal of Interpersonal Violence* 32(15):2298-322.

- Wardell, Jeffrey D, Jennifer P Read, John J Curtin, and Jennifer E Merrill. 2012. "Mood and implicit alcohol expectancy processes: Predicting alcohol consumption in the laboratory." *Alcoholism: Clinical and Experimental Research* 36(1):119-29.
- Waterman, Emily A, and Eva S Lefkowitz. 2020. "Does alcohol use in large group contexts mediate the association between sex-related alcohol expectancies and rape?" *Violence and victims* 35(2):195-209.
- Wegner, Rhiana, and Antonia Abbey. 2016. "Individual differences in men's misperception of women's sexual intent: Application and extension of the confluence model." *Personality and individual differences* 94:16-20.
- Whiteside, Stephen P, and Donald R Lynam. 2001. "The five factor model and impulsivity: Using a structural model of personality to understand impulsivity." *Personality and individual differences* 30(4):669-89.
- Whiteside, Stephen P, Donald R Lynam, Joshua D Miller, and Sarah K Reynolds. 2005. "Validation of the UPPS impulsive behaviour scale: a four-factor model of impulsivity." *European Journal of personality* 19(7):559-74.
- Young, A. M., L. King, A. Abbey, and C. J. Boyd. 2009. "Adolescent peer-on-peer sexual aggression: characteristics of aggressors of alcohol and non-alcohol-related assault." *J Stud Alcohol Drugs* 70(5):700-3.
- Zinzow, Heidi M, Martie P Thompson, Jennifer Goree, Crystal B Fulmer, Chloe Greene, and Hannah A Watts. 2018. "Evaluation of a college sexual violence prevention program focused on education, bystander intervention, and alcohol risk reduction." *College Student Affairs Journal* 36(2):110-25.

## TABLES

Table 1. *Descriptive statistics and study correlations for sexual perpetration, alcohol expectancies, and facets of impulsivity.*

	M (SD)	N %	1	2	3	4	5	6
1. Sexual Perpetration		22.2%	.01	.03	.08	.14	.13	
2. AEW: Sexual Affect	3.03 (.88)			.83**	.62**	.55**	.09	
3. AEW: Sex drive	3.00 (.91)				.53*	.69**	.08	
4. AES: Sexual Affect	3.16 (.94)					.64**	.16*	
5. AES: Sex drive	3.29 (1.05)						.24**	
6. Negative urgency	2.05 (.60)							

Note: AEW = Alcohol Expectancies for Women; AES = Alcohol Expectancies for Self.

\*\*Correlation is significant at .01 level (2-tailed); \*Correlation is significant at .05 level (2-tailed).

Table 2. *Logistic Regression examining the effects of alcohol expectancies for women and negative urgency on sexual aggression perpetration.*

	B	S.E.	OR	Lower 95% C.I.	Upper 95% C.I.	p
<b>Step 1</b>						
NU	.30	.20	1.35	.92	1.98	.123
AEW: Sexual Affect	-.07	.34	.93	.48	1.83	.835
AEW: Sex drive	.10	.35	1.10	.56	2.18	.777
<b>Step 2</b>						
AEW: Sex drive	-.03	.37	.98	.47	2.01	.841
AEW: Sexual Affect	.07	.36	1.07	.53	2.17	.944
NU	.29	.20	1.34	.90	1.98	.146
AEW: Sex drive x NU	-.13	.42	.88	.39	1.99	.866
AEW: Sexual Affect x NU	.06	.37	1.06	.52	2.20	.758

Note: AEW = Alcohol Expectancies for Women. NU = Negative urgency



Table 3. *Logistic regression examining the effects of alcohol expectancies for self and negative urgency on sexual aggression perpetration.*

	B	S.E.	OR	Lower 95% C.I.	Upper 95% C.I.	p
<b>Step 1</b>						
NU	.24	.20	1.27	.86	1.89	.235
AES: Sexual Affect	-.05	.26	.95	.57	1.57	.837
AES: Sex drive	.34	.27	1.41	.83	2.39	.204
<b>Step 2</b>						
AES: Sex drive	.03	.27	1.03	.61	1.75	.209
AES Sexual Affect	.35	.28	1.41	.82	2.42	.915
NU	.22	.21	1.25	.83	1.88	.280
AES: Sex drive x NU	-.39	.30	.68	.37	1.23	.444
AES: Sexual Affect x NU	.22	.28	1.24	.71	2.17	.202

Note: AES = Alcohol Expectancies for Self, NU = Negative urgency

Table 4. *Post hoc analysis examining the moderating role of sensation seeking on the relationship between alcohol expectancies for self and sexual perpetration.*

	B	S.E.	OR	Lower 95% C.I.	Upper 95% C.I.	p
<b>Step 1</b>						
SS	.18	.21	1.19	.79	1.81	.405
AES: Sexual Affect	-.06	.26	.94	.57	1.56	.815
AES: Sex drive	.37	.27	1.45	.86	2.44	.163
<b>Step 2</b>						
AES: Sex drive	.41	.27	1.51	.89	2.55	.127
AES Sexual Affect	.06	.27	1.06	.63	1.79	.827
SS	.23	.22	1.25	.81	1.93	.305
AES: Sex drive x SS	-.30	.31	.97	.53	1.77	.922
AES: Sexual Affect x SS	-.44	.31	.64	.35	1.18	.156

Note: AES = Alcohol Expectancies for Self, SS = Sensation Seeking

\* Indicates significance at .05 level

Table 5. *Post hoc analysis examining the moderating role of sensation seeking on the relationship between alcohol expectancies for women and sexual perpetration.*

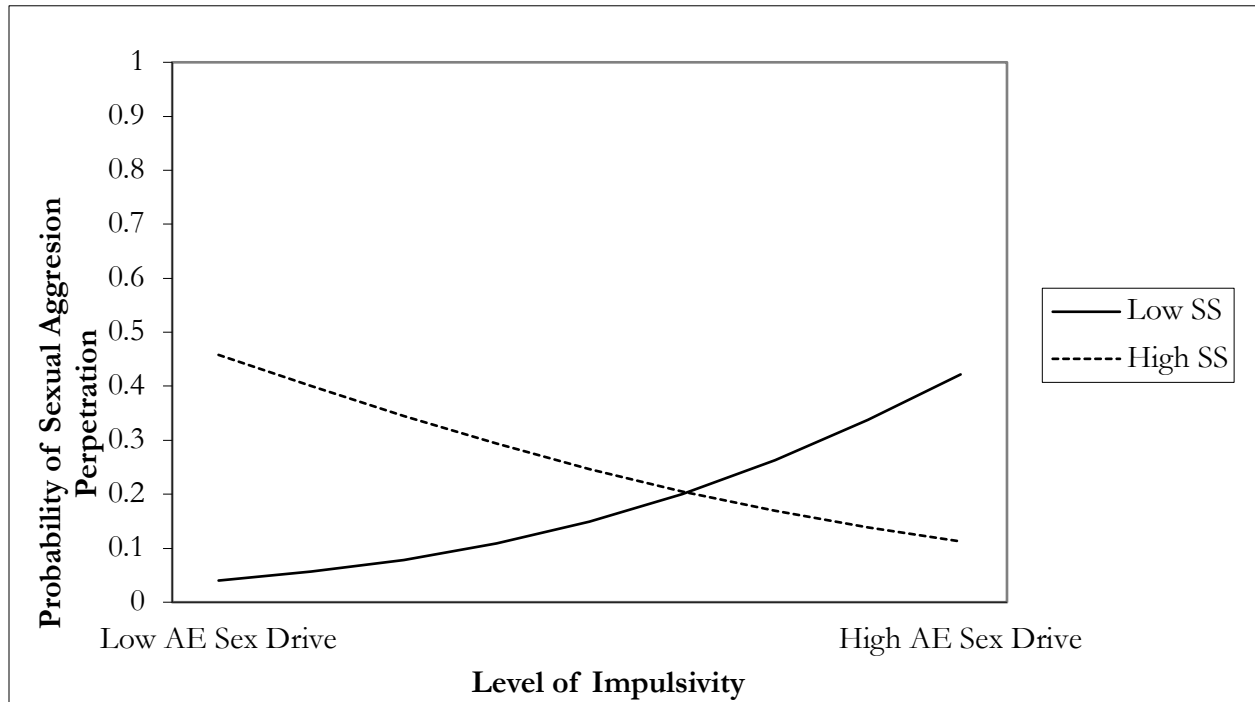
	B	S.E.	Odds Ratio (OR)	Lower 95% C.I.	Upper 95% C.I.	p
<b>Step 1</b>						
SS	.24	.21	1.27	.84	1.93	.261
AEW: Sexual Affect	-.13	.35	.88	.44	1.75	.707
AEW: Sex drive	.16	.35	1.17	.59	2.32	.652
<b>Step 2</b>						
AEW: Sex drive	.24	.38	1.27	.61	2.67	.524
AEW: Sexual Affect	-.06	.38	.95	.45	2.00	.887
SS	.31	.26	1.37	.83	2.26	.220
AEW: Sex drive x SS	<b>-1.19</b>	<b>.42</b>	<b>.30</b>	<b>.14</b>	<b>.69</b>	<b>.004*</b>
AEW: Sexual Affect x SS	.52	.43	1.68	.72	3.92	.229

Note: AEW = Alcohol Expectancies for Women., SS = Sensation Seeking

\* Indicates significance at .05 level

**FIGURES**

Figure 1. The association between alcohol expectancies for sex for women: sex drive and sexual aggression perpetration, moderated by sensation seeking.



Key: SS = Sensation Seeking, AE = Alcohol Expectancies for Women