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Men's Coercive Condom Use Resistance: The Roles of Sexual Aggression History, Alcohol Intoxication, and Partner Condom Negotiation

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Abstract

Condom use resistance (CUR) through coercive tactics is a significant public health concern. The present study investigated CUR risk factors through an alcohol administration experiment using a sexual risk analogue with a community sample of male non-problem drinkers ($N = 321$). Utilizing a path analysis framework, results demonstrated that men with more severe sexual aggression histories displayed stronger in-the-moment power and control responses, which was associated with greater coercive CUR and unprotected sex intentions. A significant interaction between sexual aggression history, risk rationale, and alcohol condition also predicted coercive CUR intentions. These findings emphasize the relationship between sexual aggression and sexual risk behaviors and highlight the importance of targeting these constructs in intervention and prevention efforts.

Sexually transmitted infections (STIs) are a significant public health concern, with nearly 20 million new STIs occurring each year in the United States—half among young adults ages 15–24 (CDC, 2014). Despite this alarming rate of STI contraction, condom use as a preventative mechanism remains infrequent and inconsistent. In fact, only 46.9% of men aged 18–24 and 53.1% of men aged 25–29 reported using condoms during their most recent vaginal intercourse with a casual sex partner (Reece et al., 2010). Burgeoning research suggests that some men engage in tactics to avoid using condoms, termed *condom use resistance*, and demonstrates that such tactics include the use of coercion (CUR; Davis et al., 2014b; 2014c). The present study focuses on risk factors associated with men's use of coercive CUR behaviors in their sexual interactions with women.

Condom Use Resistance

CUR refers to successful attempts to avoid using condoms while engaging in sexual intercourse with a partner who wants to use a condom (Davis et al., 2014b; 2014c). Although men and women report similar reasons for forgoing condoms, research suggests that men typically exert more control over whether a condom is actually used (Bowleg, Lucas, & Tschann, 2004). Men are also more likely than women to attempt to avoid using a condom and to convince their partners to not use a condom (Black, Sun, Rohrbach, & Sussman, 2011; Carter, McNair, Corbin, & Williams, 1999; DeBro, Campbell, & Peplau, 1994). Men employ a variety of CUR tactics that may be categorized as coercive or non-coercive (Davis et al., 2014b; 2014c). Coercive CUR occurs when aggressive or

manipulative tactics are utilized to avoid using a condom with a partner who wants to use one. Examples of coercive CUR strategies include emotional manipulation (e.g., telling one's partner that having to use a condom would make one angry), deception (e.g., pretending not to have a STI to avoid using a condom), and threats (e.g., threatening to harm one's partner if she insists on using a condom). Examples of non-coercive CUR strategies, on the other hand, include reduced sensitivity (e.g., telling a woman condoms are uncomfortable) and direct request (e.g., clearly stating that one does not want to use a condom). Similar to sexual coercion, coercive tactics may be distinguished from non-coercive tactics because they involve the threat of an unwanted outcome (e.g., psychological, relational, or physical) that is intended to constrain the other person's agency and ability to make an informed and consensual decision (Testa & Dermen, 1999). While engaging in non-coercive CUR may involve stating a preference for condom non-use, there is no attempt to manipulate the agency of the other person.

Eighty percent of men have utilized at least one CUR tactic since adolescence (Davis et al., 2014c), and 31% have reported using coercion or aggression to avoid using a condom since age 14 (Davis & Logan-Greene, 2012). Moreover, engaging in CUR is viewed as a normative behavior among some men and "just part of the game" in sexual relationships with women (Davis et al., 2014b; 2014c). Despite an increase in studies on CUR tactics, there is a dearth of research examining proximal and distal risk factors for coercive CUR.

Proximal and Distal Risk Factors for CUR

Both distal (i.e., temporally stable and situation nonspecific factors) and proximal (i.e., contextual attributes of the immediate environment or transitory affective/cognitive states within the individual) factors influence aggressive behavior. Thus, the present study sought to examine distal (e.g., sexual aggression history) and proximal (e.g., alcohol intoxication, partner condom negotiation) risk factors for coercive CUR intentions.

Sexual Aggression History.

There is a well-documented global association between sexual aggression (SA) history and sexual risk behavior in men (Davis, Neilson, Wegner, & Danube, 2018; Peterson, Janssen, & Heiman, 2010). In one of the first studies to examine this relationship in male perpetrators, men with a history of physical and sexual aggression were more likely to report inconsistent or no condom use during vaginal sexual intercourse with female partners (Raj et al., 2006). In addition, male perpetrators were more likely than non-perpetrators to force sexual intercourse without a condom. Other research has investigated predictors of men's willingness to employ coercive strategies in order to obtain sex without a condom (Abbey, Parkhill, Jacques-Tiura, & Saenz, 2009). Men who previously perpetrated SA felt more justified utilizing coercive techniques to obtain condomless sex than men without a history of SA. Further, Davis and colleagues (2016a) extended these findings on coercive CUR by demonstrating that SA perpetration severity was also associated with non-coercive CUR intentions in the context of an alcohol administration paradigm and sexual risk analogue. Results demonstrated that men's SA perpetration severity directly predicted greater non-coercive CUR intentions, and indirectly predicted non-coercive CUR intentions through in-

the-moment impulsivity. Thus, men's SA history is associated with both coercive and non-coercive CUR intentions.

Perhaps one explanation for the association between men's SA history and coercive CUR intentions are feelings of power and control. A man's need for dominance over a sexual situation may be related to a desire to control women in order to achieve higher personal and societal status (Levant, Rankin, Williams, Hasan, & Smalley, 2010). Men who adhere to this traditional form of gendered entitlement are more likely to resort to aggression to maintain a sense of power (Smith, Parrott, Swarthout, & Tharp, 2015). In fact, past research has found a robust association between power and control and sexually aggressive behavior in men (Anderson & Anderson, 2008; Eisler, Franchina, Moore, Honeycutt, & Rhatigan, 2000). Additionally, men tend to have greater control over women's sexual behavior, including interpersonal decisions about sex and condom use (Pulerwitz, Amaro, De Jong, Gortmaker, & Rudd, 2002; Wingood & DiClemente, 2000). Thus, relative to non-SA men, men with a history of SA may have greater feelings of power and control during condom use negotiations with women, resulting in a greater likelihood of using coercive CUR tactics in order to obtain unprotected sex. In support of this proposition, men's hostility toward women, which is associated with assertion of power and control, was predictive of greater coercive CUR intentions (Wegner et al., 2016). Although broad associations between global attitudes of power and control and aggressive behavior have been established, in-the-moment feelings of power and control have yet to be examined in the context of SA history and coercive CUR intentions. The present study aims to investigate these proximal, affective experiences as a means of tapping into the construct of power and control.

Alcohol.

Alcohol use has consistently been associated with myriad sexual risk behaviors, including sexual intercourse without a condom and multiple sex partners (Cooper, 2002). Alcohol myopia theory (Steele & Josephs, 1990) posits that alcohol intoxication pharmacologically impedes cognitive functioning; thus, an individual processes highly salient cues (e.g., affective state) and disregards distal, less salient cues (e.g., STI risk). In accordance with this theoretical framework and consistent with previous research, intoxicated men were more likely than sober men to engage in sex without a condom, were less effective at negotiating condom use with a hypothetical partner, and were more likely to report intentions to engage in unprotected sexual intercourse (MacDonald, Fong, Zanna, & Martineau, 2000; Maisto et al., 2004). Moreover, a recent meta-analysis of experimental alcohol administration studies found that an increase in blood alcohol content of 0.1 mg/ml from 0.00 mg/ml resulted in a 2.9–5% increase in the likelihood of engaging in unprotected sex (Rehm, Shield, Joharchi, & Shuper, 2012).

Incipient research has focused on how acute alcohol intoxication may serve as a risk factor for CUR specifically. Davis and colleagues (2016b) found that intoxicated men displayed significantly stronger CUR intentions, greater self-efficacy for resisting condoms, and more favorable attitudes and normative perceptions toward CUR compared to their sober counterparts. Additionally, examining within-subject effects of alcohol on CUR demonstrated that among men who became intoxicated, CUR intentions increased

significantly and perceived social norms about CUR became more positive. In a subsequent investigation, alcohol consumption served as a proximal risk factor, with intoxicated men displaying greater non-coercive CUR intentions against a hypothetical female partner who requested condom use (Davis et al., 2016a). However, it is important to note that neither of these studies examined coercive CUR intentions specifically. Abbey and colleagues (2009) found that intoxicated participants with higher levels of hostility felt more justified utilizing coercion to obtain sex without a condom.

Condom Negotiation: Risk Rationale.

Condom negotiation involves a request by one partner for condom use, and a response by the other partner either acquiescing or denying that request. Thus, if a request is at first rejected, a partner may provide a rationale in favor of utilizing a condom before engaging in sexual activity. Although condom negotiation is viewed as a dyadic process, the burden of contraception typically falls on females (Fantasia, Sutherland, Fontenot, & Ierardi, 2014). Women may express a variety of reasons for wanting to use a condom before intercourse; however, primary rationales include STI prevention and risk of pregnancy (Bird, Harvey, Beckman, Johnson, & Partners Project, 2001; DeBro et al., 1994; Lam, Mak, Lindsay, & Russell, 2004). Qualitative research has demonstrated that men view both of these rationales as salient depending on their previous sexual experiences (Davis et al., 2014b). In a study of 90 heterosexual couples, approximately 50% of women and 33% of men reported that it is easier to persuade a partner to use a condom for pregnancy prevention as opposed to STI risk because pregnancy risk appears more “real” (Bird et al., 2001), and young adults report fearing unintended pregnancy more than STI transmission (Fantasia et al., 2014). Moreover, because citing STIs as a risk rationale may implicitly invoke trust issues related to number of sexual partners, infidelity, and infection status, individuals may avoid utilizing this explanation. Thus, it is not surprising that condom negotiations may be more strongly influenced by pregnancy rationales, which are perceived as more acceptable, persuasive, and less evocative of trust issues than disease rationales (De Visser & Smith, 1999).

Trust concerns may become even more salient in condom negotiations among men with SA histories. Past research has found that a man’s intimate partner violence (IPV) history influences not only how he interprets his partner’s condom request, but also how he reacts to such a request (Neighbors, O’Leary, & Labouvie, 1999). When faced with a hypothetical condom use request by a female partner, men with IPV histories were less likely to comply and were more likely to utilize coercive tactics if they perceived high relationship threat in the context of the request (Neighbors & O’Leary, 2003). Thus, condom negotiation strategies that evoke suspicion or infidelity concerns, such as a STI risk rationale, may reduce the likelihood that sexually aggressive men will comply with a partner’s condom use request (Malamuth & Brown, 1994). In fact, the power differential between men with SA histories and their female partners can constrain a woman’s ability to negotiate safer sex, and result in greater male control over sexual initiation and refusal (Pulerwitz et al., 2002). Despite these findings, there remains a dearth of research on the relationship between a woman’s condom negotiation risk rationale and coercive CUR intentions in men with SA histories.

Study Overview and Hypotheses

The present study sought to examine distal and proximal risk factors for men's coercive CUR intentions within an alcohol administration paradigm and sexual risk analogue. Utilizing a path analysis framework, the hypothesized model examined associations among SA perpetration history, alcohol intoxication, and partner condom negotiation risk rationale on men's coercive CUR intentions, as well as on men's unprotected sex intentions. We hypothesized explanatory pathways such that (H1) men with a more severe history of SA perpetration will report greater coercive CUR intentions directly and indirectly through greater in-the-moment power and control responses as well as greater unprotected sex intentions, (H2) intoxicated men will report greater coercive CUR intentions and unprotected sex intentions, and that (H3) there will be an interaction such that men with more severe SA perpetration histories who are intoxicated will report greater coercive CUR intentions directly and indirectly through greater in-the-moment power and control responses. We also predicted that (H4) STI risk rationale will be associated with increased coercive CUR intentions, and that (H5) there will be an interaction between alcohol condition and risk rationale such that intoxicated men who receive a STI risk rationale will report increased coercive CUR intentions compared to sober men who receive a pregnancy risk rationale due to alcohol myopia effects. Additionally, we explore the effects of the 3-way interaction of SA history, risk rationale, and alcohol intoxication on coercive CUR intentions.

Method

Participants

Men were eligible if they reported being between the ages of 21 and 30 and were interested in sexual activity with women. Further eligibility criteria required having had vaginal or anal intercourse without a condom at least once in the past year. Consistent with guidelines on the ethical administration of alcohol (NIAAA, 2005), men were excluded on the basis of (a) being under the legal drinking age; (b) having medical conditions or taking prescription medications contraindicated with alcohol use; and/or (c) a history of negative reactions to alcohol or problem drinking according to the Brief Michigan Alcohol Screening Test (Connor, Grief, Feeney, & Young, 2007; Pokorny, Miller, & Kaplan, 1972).

A total of 321 men participated in the study ($M_{age} = 24.5$, $SD = 2.78$), and 313 were included in the analyses. The majority of the sample self-identified as Caucasian (65.5%); 7.8% self-identified as African-American/Black; 8.1% as Asian/Pacific Islander; 6.5% as Hispanic/Latino; 0.7% as Native American; and 15.2% as multiracial or "other". Approximately half the sample (49.8%) was engaged in full- or part-time employment, and the majority of the participants (82.1%) had at least some college education. In all, 35% reported current full- or part-time student status, and almost three quarters of the participants (71.6%) reported a yearly income of \$40,999 or below (47.6%, \$20,999).

Procedures

This study included three study phases: a baseline survey phase, an experimental phase involving alcohol administration, and a follow-up survey phase. Only the results from the baseline survey and experimental phases are included in this investigation. Participants were recruited from an urban northwest community using online and print advertisements soliciting single male drinkers ages 21 to 30 for a research study on male-female social interactions. Interested individuals telephoned the laboratory, were screened to determine eligibility, and if eligible, were scheduled for a laboratory session.

Initial procedures

Upon arrival at the laboratory, a male research assistant (RA) checked ID and administered an alcohol breath test to ensure a 0.0% breath alcohol concentration (BrAC). Participants then provided informed consent and completed the baseline survey measures in a private room by directly entering their responses into a computer using data collection software (Datstat Illume, Version 4.7) to which they were oriented by the RA.

Beverage administration

Following the baseline measures, participants were randomly assigned to one of the four beverage conditions. Beverage conditions included (a) a dose of alcohol intended to yield a peak BrAC of .08%; (b) a dose of alcohol intended to yield a peak BrAC of .04%; (c) a control condition in which participants were given no alcohol and were informed as such; and (d) a placebo condition in which participants were told they would be receiving the .04% dose, but received no alcohol. Both high and low dose alcohol conditions were included in order to account for the myopic effects of alcohol, which are expected to be stronger at higher doses (Steele & Josephs, 1990). A placebo condition was also included to account for any alcohol expectancy effects (for review, see Abbey, McAuslan, Ross, & Zawacki, 1999; MacAndrew & Edgerton, 1969). Alcoholic beverages consisted of one part 100-proof vodka to three parts orange juice. Participants assigned to the .04% condition received 0.41 ml ethanol per pound of body weight. Participants in the .08% condition received twice that amount per pound of body weight. Control participants consumed a volume of orange juice that was equivalent to the total volume of beverage that they would have received in the alcohol condition to which they were yoked (yoking procedure described below). Procedures for the placebo manipulation followed those recommended by Rohsenow and Marlatt (1981). Participants were guided by the RA to pace their beverage consumption over 9 minutes.

Alcohol intoxication limb (either ascending or descending levels of intoxication) has been shown to affect cognitive and behavioral performance differences (e.g., Pihl, Paylan, Gentes-Hawn, & Hoaken, 2003). To ensure the stimulus story and related assessments were completed on the ascending limb, we tested participant BrACs every 4 minutes until they received a criteria BrAC of .02% for participants in the .04% condition and .05% for participants in the .08% condition, at which point they began reading the stimulus story (Schacht, Stoner, George, & Norris, 2010). A yoked control design was used to reduce error variance in time between beverage consumption and experimental manipulation (Giancola & Zeichner, 1997), such that each participant assigned to either a control or placebo condition

was yoked to a prior alcohol participant and was conducted through the experiment at the same time intervals as the alcohol participant to whom he had been yoked.

Stimulus Scenario

After reaching the criterion BrAC, participants read a sexually explicit scenario of approximately 1,600 words at a 5th-grade reading level. The scenario was written in the second person, and the participants were instructed to project themselves into the story as the protagonist at their current level of intoxication. Participants were randomized to a condom negotiation risk rationale condition in which the female partner provides a rationale for using a condom to avoid either risk of pregnancy or risk of a STI. In the scenario, the protagonist is interacting with “Erica,” an attractive woman with whom the protagonist has previously had sex twice with inconsistent condom use. While at Erica’s apartment, the protagonist is offered either soda or a mixed drink of soda and alcohol, consistent with the participants’ beverage condition (with placebo condition receiving a story with alcohol). After engaging in consensual kissing and touching, the protagonist and Erica realize that neither one of them has a condom. Erica then provides either pregnancy or STI risk as a reason not to engage in condomless sex. Both Erica and the protagonist continue to engage in mutually agreed upon non-penetrative sexual activity. The protagonist then moves on top of Erica and presses his genitals against hers at which point Erica suggests that she obtain a condom from her roommate and reiterates her desire to use a condom due to either pregnancy or STI risk concerns. At this point the story terminated, and participants completed dependent measures. Participants rated the scenario as realistic (“I feel that the scenario depicted a realistic situation that might happen to me”; 1= *not at all*; 7= *very much*; $M = 5.84$; $SD = 1.56$).

Two manipulation checks were used to ensure the placebo manipulation was successful. Near the conclusion of the study, participants were asked how many drinks they had consumed and what their highest level of intoxication was on a scale from 1 (*not at all intoxicated*) to 7 (*extremely intoxicated*). If a participant indicated “0” drinks and an intoxication level of “1,” he was considered a placebo manipulation failure. To assess the risk rationale story manipulation, participants rated whether Erica wanted to use a condom due to concerns about pregnancy or concerns about STIs. Participants who answered incorrectly based on their assigned conditions were considered story condition manipulation failures.

Detoxification and debriefing

After completing the dependent measures, participants were debriefed, paid \$15 per hour, and released. Participants who received alcohol were not debriefed or released until their BrAC dropped to .03% or below (NIAAA, 2005). All procedures and measures were approved by the university’s Human Subjects Division Institutional Review Board.

Measures

Sexual aggression.—A modified version of the Sexual Experiences Survey (Abbey, Parkhill, & Koss, 2005) was used to assess prior perpetration of SA that occurred since the participant was age 14. Perpetration of unwanted sexual contact (fondling, kissing),

attempted intercourse, and other penetrative or oral sex were assessed for each of 3 different tactics: (1) coercion (e.g., overwhelming the woman with continual arguments or pressure; telling her lies); (2) taking advantage of the woman when she was passed out or too intoxicated to consent; and (3) using or threatening to use physical force. Participants indicated the number of times they did each of these combinations ranging from 0 (*never*) to 3 (*3 or more times*). A severity scoring method was utilized that included event frequency and a severity score for the combination of tactic and outcome, yielding a maximum severity score of 63 (Davis et al., 2014a). This scoring method accounts for multiple perpetrations through multiple tactics, thus enabling a more comprehensive reflection of the perpetration severity of this sample.

In-the-moment power and control responses.—After reading the scenario but before rating their CUR intentions, participants completed items that evaluated the degree (1 = *not at all* to 7 = *extremely*) to which they felt each of 25 different in-the-moment affective responses. We conducted a confirmatory factor analysis and determined five responses (self-assured, aggressive, powerful, strong, and confident) loaded onto a Power and Control subscale ($\alpha = .86$; Watson, Clark, & Tellegen, 1988).

Condom use resistance intentions.—Two subscales from the Condom Use Resistance scale (Davis et al., 2014c) assessed at the end of sexual activity were used for the present study. The Condom Use Resistance scale is a 31-item scale consisting of nine subscales assessing participants' intentions (1 = *very unlikely* to 7 = *very likely*) to engage in various tactics to avoid using a condom with a female sexual partner who has requested to use one. The present investigation used the two most frequently endorsed (Davis et al., 2014c) coercive CUR tactics: Emotional Manipulation ($\alpha = .79$; e.g., *Tell Erica how angry you would be if you had to use a condom*), and Deception ($\alpha = .79$; e.g., *Pretend not to have a STI to avoid using a condom*).

Unprotected sex intentions.—At the termination of the story, participants completed a series of questions assessing their intentions to engage in unprotected sex with Erica on a 7-point scale (1 = *very unlikely* to 7 = *very likely*). Four items specific to condomless penile-vaginal contact and penetration were averaged to create a composite variable ($\alpha = .90$) of unprotected sex likelihood (e.g., *Have vaginal sex with Erica without a condom*).

Data Analytic Strategy

We first examined missing data for the study variables, and missing data was minimal (< 3% of all observations). We also checked the descriptive statistics including skewness of study variables and found that the CUR subscales were significantly positively skewed (i.e., skew greater than ± 1.96 ; Tabachnick & Fidell, 2007). Because transformations did not adequately reduce the skew for Deception CUR, we had to consider other ways to account for these non-normal variables in analyses. Therefore, we conducted path analyses in Stata Version 13 (StataCorp, 2013) using the generalized SEM (GSEM) command that utilizes maximum likelihood estimation with robust standard errors to account for the small amount of missing data. GSEM allows generalized linear response functions for variables that are both endogenous and exogenous. Thus, we modeled the CUR variables as gamma

distributions with log link functions because this distribution can be applied to significantly positively skewed continuous data (McCullah & Nelder, 1989; Neal & Simons, 2007). There are several limitations of GSEM including the lack of model fit statistics typically evaluated when conducting a path analysis (e.g., Chi-square test of model fit, TLI, RMSEA; Kline, 2011), and GSEM does not provide a test of indirect effects.

We began our model selection process with our hypothesized model shown in Figure 1. We then conducted another model that examined the three-way interaction between beverage condition (0 = *no alcohol*, 1 = *alcohol*), risk rationale condition (0 = *STI risk rationale*, 1 = *pregnancy risk rationale*), and SA and on power and control responses, Emotional Manipulation and Deception CUR tactics, and unprotected sex intentions. Although we did not specifically hypothesize the three-way interaction, it is important to examine as it may provide useful information about the risk nexus of alcohol intoxication, a partner's risk rationale, and SA history. Our final model reflects the most parsimonious model that trimmed non-significant interactions when appropriate. To provide further support for a final model, we ran the final model using a standard path analysis assuming all normal distributions to examine traditional model fit statistics. Because GSEM uses distributions more appropriate to the measured variables, it is thought to reduce error and therefore should have even better model fit than a model that erroneously assumes normal distributions (Garson, 2015). Finally, we examined indirect effects through power and control responses using Selig and Preacher's (2008) interactive tool to generate confidence intervals for indirect effects.

Results

Preliminary Analyses

Two subjects withdrew from the study prior to completion. Six other participants were not included in these analyses: two participants responded "no answer" to the majority of study items, and four failed experimental manipulation checks (two failed the placebo manipulation check; two failed the story condition manipulation check). Thus, the final study sample was 313.

One-way ANOVAs revealed no significant differences across any of the variables in the model between the control and placebo conditions (all p 's > .49), or between the low and high alcohol dose conditions (all p 's > .20). Therefore, we combined the control and placebo conditions (*no alcohol* = 0) and the low and high dose alcohol conditions (*alcohol* = 1).

Descriptive statistics and correlations among study variables are shown in Table 1. SA perpetration was significantly positively correlated with feelings of power and control, Emotional Manipulation CUR intentions, and unprotected sex intentions. Emotional Manipulation and Deception CUR intentions were highly correlated with each other as well as with unprotected sex intentions.

Final Model Results

Table 2 shows the AIC and BIC values for the three path analysis models examined. Significant paths and unstandardized coefficients for the final model are shown in Figure 2.

A more severe history of SA perpetration was associated with greater in-the-moment power and control responses and with unprotected sex intentions (H1). There was a significant main effect of beverage condition on Deception CUR intentions (H2) that was superseded by a significant 3-way interaction among beverage condition, risk rationale condition, and SA on Emotional Manipulation and Deception CUR intentions. Although risk rationale main effects (H4) and two-way interactive effects with alcohol (H5) were not supported, risk rationale was predictive of coercive CUR intentions in conjunction with intoxication and SA history. There was a stronger positive relationship between SA history and both Emotional Manipulation (Figure 3) and Deception (Figure 4) CUR intentions for those who received alcohol and the STI risk rationale compared to those who received no alcohol and the STI risk rationale as well as those who received alcohol and the pregnancy rationale. Greater Emotional Manipulation CUR intentions were associated with greater unprotected sex intentions; however, Deception CUR intentions were not significantly associated with unprotected sex intentions.

We examined the indirect effects from SA perpetration history through power and control responses to Emotion Manipulation and Deception CUR intentions and unprotected sex intentions. There was a significant indirect effect from SA to power and control responses to Emotional Manipulation CUR intentions (95% confidence intervals [CIs]: .0006, .005), as well as to Deception CUR intentions (95% CIs: .0003, .003), and unprotected sex intentions (95% CIs: .003, .02) (H3).

As described above, we examined this final model using a standard path analysis assuming normal distributions, though we maintained the use of maximum likelihood estimation and robust standard errors. The model represented an overall good fit for the data (Hu & Bentler, 1999; Kline, 2011), $\chi^2 (df = 9) = 7.76, p = .56$; comparative fit index (CFI) = 1.00; Tucker-Lewis fit index (TLI) = 1.02; root mean square error of approximation (RMSEA) = .00 (90% confidence interval [CI]: .00, .06); standardized root mean squared residual (SRMR) = .01. This provides additional support for the final model shown in Figure 2 as using GSEM with gamma distributions to more appropriately model the CUR intentions is likely an even better fit for the data than the standard path analysis erroneously assuming normal distributions (Garson, 2015).

Discussion

Building on previous investigations, the present study examined the influence of both distal (i.e., SA perpetration history) and proximal (i.e., alcohol intoxication, condom negotiation risk rationale) factors on men's intentions to use coercive CUR tactics and have unprotected sex after their partner requests condom use due to either pregnancy or STI risk concerns. Our hypothesized model was partially supported. SA perpetration history predicted greater coercive CUR intentions through in-the-moment power and control responses and also directly predicted greater unprotected sex intentions. Condom negotiation risk rationale interacted with alcohol intoxication and SA perpetration history to directly predict emotional manipulation and deceptive CUR intentions. Overall, findings indicate that SA perpetration history is predictive of coercive CUR and unprotected sex intentions both directly and

indirectly, suggesting potential intervention points for reducing men's coercive and risky sexual behaviors.

The present findings corroborate other research demonstrating the association between men's sexually aggressive behavior and sexually risky behavior. These sexual aggression-sexual risk connections have been supported by both domestic and international research efforts involving a variety of sexual risk behaviors (Davis, Neilson, Wegner, & Danube, 2018). In the present study, we examined intentions to engage in behaviors that are simultaneously coercive *and* risky – using coercion as a means to avoid condom use. Recent research has called for more thorough consideration of the ways in which nonconsensual behaviors regarding condom use are defined by both researchers and the legal system, including greater deliberation regarding the implications of defining such events as acts of sexual aggression (Davis & Logan-Greene, 2012; Brodsky, 2017). Consistent with defining coercive CUR behaviors as part of the spectrum of SA, our findings indicate that having a more severe SA perpetration history is indirectly predictive of greater intentions to engage in coercive CUR tactics. Moreover, the present results demonstrate the importance of concomitantly addressing both SA and sexual risk in prevention and intervention efforts given that some behaviors, such as coercive CUR, involve elements of both coercion and risk. Prevention and intervention programs regarding SA could incorporate discussions of sexual risk, particularly addressing the use of coercion to avoid using condoms with partners who want to use them. Similarly, sexual risk interventions could be targeted towards sexually aggressive men as well as tailored to address the potential mechanisms underlying their risk behaviors.

The present study demonstrated that men with more severe SA perpetration histories had stronger in-the-moment power and control responses, which predicted stronger coercive CUR and unprotected sex intentions. This finding corroborates previous research demonstrating the association between men's sexual dominance and their engagement in SA (e.g., Smith et al., 2015) and extends the application of this association to sexual coercion specific to condom use. Because hegemonic gender norms - including an emphasis on dominance, power, and control - socialize men in ways that increase their risk of perpetrating sexually coercive and aggressive behaviors (Tharp et al., 2013; Zurbriggen, 2010), interventions that seek to reduce SA through changes in masculinity and gender-related factors have experienced some success (e.g., Salazar, Vivolo-Kantor, Hardin, & Berkowitz, 2014). Present findings indicate that such interventions may also be applicable for reducing sexual risk behaviors that contain elements of coercion and are predicated upon in-the-moment responses of power and control. In the present study, power and control responses were investigated proximal to coercive CUR intentions. Future research that investigates men's global endorsements of sexual dominance, power, and control are warranted, as are investigations that assess the efficacy of targeting traditional gender norms regarding sexual dominance for reducing men's engagement in coercive CUR.

Interestingly, condom negotiation risk rationale interacted with alcohol intoxication and SA perpetration history to directly influence intentions to engage in emotional manipulation and deceptive CUR tactics. Intoxicated men who received the STI risk rationale and had a more severe SA perpetration history reported stronger emotional manipulation and deceptive CUR

intentions than all other groups. Consistent with previous research with aggressive men (Neighbors & O’Leary, 2003), requests to use a condom for STI risk reasons may have been experienced as threatening or evocative of suspicion, resulting in decreased compliance with the condom use request. This experience may have been particularly salient for intoxicated, sexually aggressive men whose ability to cognitively process the request was impaired (Steele & Josephs, 1990). Perhaps an STI risk rationale coupled with alcohol intoxication evoked feelings of hostility, anger, or mistrust that were difficult for more sexually aggressive men to regulate due to alcohol’s impairment effects, resulting in stronger intentions to coerce unprotected sex through emotional and deceptive means. Although we did not test this possibility in the current work, other similar research has found that alcohol intoxication exacerbates pre-existing hostility tendencies, resulting in greater justification of using coercion to obtain unprotected sex (Abbey et al., 2009). Such findings suggest that men’s reactions to different types of condom use requests, particularly intoxicated men with a history of being sexually aggressive or hostile towards women, deserve further examination in order to provide a clear empirical foundation from which to build or adapt interventions such that they specifically and effectively target men’s coercive CUR behaviors.

Limitations and Conclusions

The use of an alcohol administration protocol was both a strength and a limitation of this study. Although such protocols enable rigorous control over alcohol-related variables (e.g., BrAC) and allow for causal interpretation of variable associations, they are limited in their ability to mimic real-world drinking patterns and amounts due to ethical constraints. Additionally, because alcohol administration studies must exclude certain types of drinkers (e.g., problem drinkers), it is unknown how these findings would generalize to such groups. Our sample was also limited to young men who have sex with women and who do not always use condoms. Future research could investigate the predictors of coercive CUR in other samples of men, such as heavier drinkers or men who exclusively have sex with men. Finally, the present study used a laboratory analogue rather than measuring real-world coercive CUR behavior. Future investigations should assess the ways in which contextual (e.g., alcohol consumption, partner condom request rationale) and individual (e.g., both global and proximal sexual dominance) factors are associated with actual coercive CUR.

Overall, our study findings demonstrate that sexual coercion and sexual risk do not necessarily occur in isolation. Men with SA perpetration histories are more likely than non-perpetrators to use coercion (e.g., emotional manipulation, deception) as a means to obtain unprotected sex, highlighting the need to address both SA and sexual risk in intervention efforts with at-risk men. While continued research exploring the complex role of masculinities and gender roles in sexual coercion and risk is needed, study findings suggest that interventions targeting power and control factors may help reduce SA men’s engagement in coercive CUR. Moreover, proximal factors, including alcohol intoxication and partner reasons for requesting condom use, synergistically increased SA men’s coercive CUR intentions, highlighting the importance of addressing contextual variables in future research and intervention efforts. Finally, the present research highlights the individual-, situational-, and cultural-level (e.g., hegemonic gender norms) contributors to the

intersectionality of sexual coercion and sexual risk behaviors, which warrant continued attention and ongoing intervention given their significant public health implications.

References

- Abbey A, McAuslan P, Ross LT, & Zawacki T (1999). Alcohol expectancies regarding sex, aggression, and sexual vulnerability: Reliability and validity assessment. *Psychology of Addictive Behaviors*, 13, 174–182.
- Abbey A, Parkhill MR, Jacques-Tiura AJ, & Saenz C (2009). Alcohol's role in men's use of coercion to obtain unprotected sex. *Substance Use and Misuse*, 44, 1329–1348. [PubMed: 19938921]
- Abbey A, Parkhill MR, & Koss MP (2005). The Effects of frame of reference on responses to questions about sexual assault victimization and perpetration. *Psychology of Women Quarterly*, 29, 364–373. [PubMed: 26451071]
- Anderson CA, & Anderson KB (2008). Men who target women: Specificity of target, generality of aggressive behavior. *Aggressive Behavior*, 34, 605–622. doi:10.1002/ab.20274 [PubMed: 18570330]
- Davis KC, Neilson EC, Wegner R, Danube CL (2018). The intersection of men's sexual violence perpetration and sexual risk behavior: A literature review. *Aggression and Violent Behavior*, 40, 83–90.
- Bird ST, Harvey SM, Beckman LJ, Johnson CH, & The PARTNERS Project. (2001). Getting your partner to use condoms: Interviews with men and women at risk of HIV/STDs, *Journal of Sex Research*, 38, 233–240.
- Black DS, Sun P, Rohrbach LA, & Sussman S (2011). Decision-making style and gender moderation of the self-efficacy-condom use link among adolescents and young adults: Informing targeted STI/HIV prevention programs. *Archives of Pediatrics and Adolescent Medicine*, 165, 320–325. [PubMed: 21464380]
- Bowleg L, Lucas KJ, & Tschann JM (2004). "The ball was always in his court": An exploratory analysis of relationship scripts, sexual scripts, and condom use among African American women. *Psychology of Women Quarterly*, 28, 70–82.
- Brodsky A (2017). 'Rape-Adjacent': Imagining legal responses to nonconsensual condom removal. *Columbia Journal of Gender and Law*, 32, 183–210.
- Carter JA, McNair LD, Corbin WR, & Williams M (1999). Gender differences related to heterosexual condom use: The influence of negotiation styles. *Journal of Sex & Marital Therapy*, 25(3), 217–225. [PubMed: 10407794]
- Centers for Disease Control and Prevention (CDC) (2014). Reported STDs in the United States: 2014 National Data for Chlamydia, Gonorrhea, and Syphilis. Retrieved from <https://www.cdc.gov/std/stats14/std-trends-508.pdf>
- Connor JP, Grief M, Feeney GF, & Young RM (2007). The validity of the brief Michigan alcohol screening test (bMAST) as a problem drinking severity measure. *Journal of Studies on Alcohol and Drugs*, 68(5), 771–779. doi:10.15288/jsad.2007.68.771 [PubMed: 17690811]
- Cooper ML (2002). Alcohol use and risky sexual behavior among college students and youth: evaluating the evidence. *Journal of Studies on Alcohol*, Supplement 14, 101–117. [PubMed: 12022716]
- Davis KC, Danube CL, Neilson EC, Stappenbeck CA, Norris J, George WH, & Kajumulo KF (2016a). Distal and proximal influences on men's intentions to resist condoms: alcohol, sexual aggression history, impulsivity, and social-cognitive factors. *AIDS and Behavior*, 20, 147–157. [PubMed: 25855046]
- Davis KC, Gilmore AK, Stappenbeck CA, Balsan MJ, George WH, & Norris J (2014a). How to score the sexual experiences survey? A comparison of nine methods. *Psychology of violence*, 4(4), 445. [PubMed: 25512879]
- Davis KC, Jacques-Tiura AJ, Stappenbeck CA, Danube CL, Morrison DM, Norris J, & George WH (2016b). Men's condom use resistance: Alcohol effects on theory of planned behavior constructs. *Health Psychology*, 35, 178. [PubMed: 26348499]

- Davis KC, & Logan-Greene P (2012). Young men's aggressive tactics to avoid condom use: A test of a theoretical model. *Social Work Research*, 36, 223–231. [PubMed: 23139623]
- Davis KC, Schraufnagel TJ, Kajumulo KF, Gilmore AK, Norris J, & George WH (2014b). A qualitative examination of men's condom use attitudes and resistance: "It's just part of the game". *Archives of Sexual Behavior*, 43(3), 631–643. [PubMed: 23912776]
- Davis KC, Stappenbeck CA, Norris J, George WH, Jacques-Tiura AJ, Schraufnagel TJ, & Kajumulo KF (2014c). Young men's condom use resistance tactics: A latent profile analysis. *The Journal of Sex Research*, 51, 454–465. [PubMed: 23548069]
- Debro SC, Campbell SM, & Peplau LA (1994). Influencing a partner to use a condom: characteristics of the situation are more important than characteristics of the individual. *Psychology, Health and Medicine*, 4, 265–79.
- De Visser RO, & Smith AMA (1999). Predictors of heterosexual condom use: Characteristics of the situation are more important than characteristics of the individual. *Psychology, Health & Medicine*, 4(3), 265–279.
- Eisler RM, Franchina JJ, Moore TM, Honeycutt HG, & Rhatigan DL (2000). Masculine gender role stress and intimate abuse: Effects of gender relevance of conflict situations on men's attributions and affective responses. *Psychology of Men & Masculinity*, 1(1), 30.
- Fantasia HC, Sutherland MA, Fontenot H, & Ierardi JA (2014). Knowledge, attitudes and beliefs about contraceptive and sexual consent negotiation among college women. *Journal of forensic nursing*, 10(4), 199–207. [PubMed: 25411811]
- Giancola PR, & Zeichner A (1997). The biphasic effects of alcohol on human physical aggression. *Journal of Abnormal Psychology*, 106, 598. [PubMed: 9358690]
- Lam AG, Mak A, Lindsay PD, & Russell ST (2004). What really works? An exploratory study of condom negotiation strategies. *AIDS Education and Prevention*, 16(2), 160–171. [PubMed: 15134124]
- Leonard KE (1993). Drinking patterns and intoxication in marital violence: Review, critique, and future directions for research In Martin SE (Ed.) *Alcohol and Interpersonal Violence: Fostering Multidisciplinary Perspectives* (pp. 253–280). Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.
- Levant RF, Rankin TJ, Williams CM, Hasan NT, & Smalley KB (2010). Evaluation of the factor structure and construct validity of scores on the Male Role Norms Inventory-Revised (MRNI-R). *Psychology of Men & Masculinity*, 11, 25–37. doi:10.1037/a0017637
- MacAndrew C, & Edgerton RB (1969). *Drunken comportment: A social explanation*. Oxford, England: Aldine.
- MacDonald TK, Fong GT, Zanna MP, & Martineau AM (2000). Alcohol myopia and condom use: can alcohol intoxication be associated with more prudent behavior? *Journal of Personality and Social Psychology*, 78, 605–619. [PubMed: 10794369]
- Maisto SA, Carey MP, Carey KB, Gordon CM, Schum JL, & Lynch KG (2004). The relationship between alcohol and individual differences variables on attitudes and behavioral skills relevant to sexual health among heterosexual young adult men. *Archives of Sexual Behavior*, 33, 571–584. [PubMed: 15483371]
- Malamuth NM, & Brown LM (1994). Sexually aggressive men's perceptions of women's communications: Testing three explanations. *Journal of Personality and Social Psychology*, 67(4), 699–712. [PubMed: 7965615]
- National Institute on Alcohol Abuse and Alcoholism. (2005). Recommended council guidelines on ethyl alcohol administration in human experimentation. Retrieved on November 4, 2014 from <http://www.niaaa.nih.gov/research/guidelines-and-resources/administering-alcohol-human-studies>.
- Neighbors CJ, & O'Leary A (2003). Responses of male inmates to primary partner requests for condom use: Effects of message content and domestic violence history. *AIDS Education and Prevention*, 15(1), 93–108. [PubMed: 12627746]
- Neighbors CJ, O'Leary A, & Labouvie E (1999). Domestically violent and nonviolent male inmates' responses to their partners' requests for condom use: Testing a social-information processing model. *Health Psychology*, 18(4), 427–431. [PubMed: 10431946]

- Peterson ZD, Janssen E, & Heiman JR (2010). The association between sexual aggression and HIV risk behavior in heterosexual men. *Journal of Interpersonal Violence*, 25, 538–556. [PubMed: 19474034]
- Pihl RO, Paylan SS, Gentes-Hawn A, & Hoaken PN (2003). Alcohol affects executive cognitive functioning differentially on the ascending versus descending limb of the blood alcohol concentration curve. *Alcoholism: Clinical and Experimental Research*, 27, 773–779. doi: 10.1097/01.alc.0000065434.92204.a1
- Pokorny AD, Miller BA, & Kaplan HB (1972). The brief MAST: A shortened version of the Michigan Alcoholism Screening Test. *American Journal of Psychiatry*, 129, 342–345. doi:10.1176/ajp.129.3.342 [PubMed: 5053717]
- Pulerwitz J, Amaro H, De Jong W, Gortmaker SL, & Rudd R (2002). Relationship power, condom use, and HIV risk among women in the USA. *AIDS Care*, 14, 789–800. [PubMed: 12511212]
- Raj A, Santana C, Marche A, Amaro H, Cranston K, & Silverman JG (2006). Perpetration of intimate partner violence associated with sexual risk behaviors among young adult men. *American Journal of Public Health*, 96, 1873–1878. [PubMed: 16670216]
- Reece M, Herbenick D, Schick V, Sanders SA, Dodge B, & Fortenberry JD (2010). Condom use rates in a national probability sample of males and females ages 14 to 94 in the United States. *The Journal of Sexual Medicine*, 7, 266–276. [PubMed: 21029384]
- Rehm J, Shield KD, Joharchi N, & Shuper PA (2012). Alcohol consumption and the intention to engage in unprotected sex: Systematic review and meta-analysis of experimental studies. *Addiction*, 107, 51–59. [PubMed: 22151318]
- Rohsenow DJ, & Marlatt GA (1981). The balanced placebo design: Methodological considerations. *Addictive Behaviors*, 6, 107–122. [PubMed: 7023202]
- Salazar LF, Vivolo-Kantor A, Hardin J, & Berkowitz A (2014). A Web-Based Sexual Violence Bystander Intervention for Male College Students: Randomized Controlled Trial. *Journal of Medical Internet Research*, 16(9), e203 <http://doi.org/10.2196/jmir.3426> [PubMed: 25198417]
- Schacht RL, Stoner SA, George WH, & Norris J (2010). Idiographically determined versus standard absorption periods in alcohol administration studies. *Alcoholism: Clinical and Experimental Research*, 34, 925–927. doi: 10.1111/j.1530-0277.2010.01165.x
- Selig JP, & Preacher KJ (2008, 6). Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects [Computer software]. Available from <http://quantpsy.org/>.
- Smith RM, Parrott DJ, Swarthout KM, & Tharp A (2015). Deconstructing hegemonic masculinity: The roles of antifemininity, subordination to women, and sexual dominance in men's perpetration of sexual aggression. *Psychology of Men and Masculinity*, 16, 160–169. [PubMed: 29950930]
- Steele CM, & Josephs RA (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist*, 45, 921. [PubMed: 2221564]
- Testa M, & Dermen KH (1999). The differential correlates of sexual coercion and rape. *Journal of Interpersonal Violence*, 14, 548–561.
- Tharp AT, DeGue S, Valle LA, Brookmeyer KA, Massetti GM, & Matjasko JL (2013). A systematic qualitative review of risk and protective factors for sexual violence perpetration. *Trauma, Violence, & Abuse*, 14(2), 133–167.
- Watson D, Clark LA, & Tellegen A (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070. doi:10.1037/0022-3514.54.6.1063 [PubMed: 3397865]
- Wegner R, Davis KC, Stappenbeck CA, Kajumulo KF, Norris J, & George WH (2016). The Effects of Men's Hostility Toward Women, Acute Alcohol Intoxication, and Women's Condom Request Style on Men's Condom Use Resistance Tactics. *Psychology of Violence*.
- Wingood GM, & DiClemente RJ (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior*, 27(5), 539–565. [PubMed: 11009126]
- Zurbriggen EL (2010). Rape, war, and the socialization of masculinity: Why our refusal to give up war ensures that rape cannot be eradicated. *Psychology of Women Quarterly*, 34(4), 538–549.

Figure 1.
Hypothesized model.

Figure 2.

Final model results with unstandardized path coefficients presented. Only the 3-way interaction is shown here although all lower order interactions were included in the model with paths predicting emotional manipulation CUR intentions and deception CUR intentions. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 3.

Three-way interaction predicting emotional manipulation CUR intentions.

Figure 4.
Three-way interaction predicting deceptive CUR intentions.

Table 1.Correlations and descriptive statistics for study variables ($N = 313$).

	1.	2.	3.	4.	5.	6.	7.
1. Beverage condition	--						
2. Risk rationale condition	.01	--					
3. SA perpetration	.04	-.01	--				
4. Power/control responses	-.05	.06	.15**	--			
5. Emotional manipulation CUR intentions	.19***	-.08	.16**	.25***	--		
6. Deception CUR intentions	.19***	-.08	.09	.19**	.60***	--	
7. Unprotected sex intentions	.11*	.20***	.20***	.33***	.35***	.23***	
Observed range	--	--	0–36	1–7	1–7	1–5.75	1–7
Mean	--	--	6.69	4.35	1.60	1.24	4.10
SD	--	--	8.27	1.57	1.09	0.65	2.02

Note. Beverage condition was coded 0 = no alcohol, 1 = alcohol. Risk rationale condition was coded 0 = STI risk rationale, 1 = pregnancy risk rationale. SA = sexual aggression. CUR = condom use resistance. SD = standard deviation.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2.

AIC and BIC model fit statistics for model selection

	AIC	BIC
Model 1 (Hypothesized model)	3343.78	3459.41
Model 2	3339.17	3492.10
Model 3 (Final Model)	3328.66	3448.03

Note. Model 1 reflects the hypothesized model shown in Figure 1. Model 2 reflected the addition of a 3-way interaction between beverage condition, risk rationale, and sexual aggression (SA) perpetration to Emotional Manipulation and Deception CUR intentions as well as unprotected sex intentions. Model 3 reflects the final model that trimmed the non-significant interactions.