Applying the Confluence Model of Sexual Aggression in the Context of Acute Intoxication and State Emotion Regulation

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Abstract

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Sexual aggression perpetration is a pervasive public health problem and identifying who is at greatest risk is essential for the development of targeted, evidence-based prevention. The current study evaluates the effects of state emotion regulation (ER), acute alcohol intoxication, and Confluence Model constructs on sexual aggression perpetration intentions. Single, male social drinkers ages 21-30 with a history of sexual risk-taking (N = 91) were randomly assigned to an alcohol (BrAC = .1%) or sober control condition and completed measures of hypothetical sexual aggression intentions, state ER, and Confluence Model constructs. Logistic regression demonstrated significant effects of hostile masculinity on sexual aggression intentions; men high in hostile masculinity expressed greater sexual aggression intentions. There were also significant effects of state ER on sexual aggression intentions. Men with poor state ER endorsed greater sexual aggression intentions, although this relationship only held for the men in the sober condition. Results suggest that interventions targeting state ER may be beneficial to sexual aggression perpetration prevention programming.

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Sexual aggression is a pervasive problem, with almost half of cisgender women reporting an experience of sexual victimization[1]. Sexual aggression refers to a continuum of sexual acts attempted or committed against a nonconsenting individual and includes non-penetrative and penetrative sexual contact obtained through coercive tactics such as verbal coercion, substance facilitated coercion, or physical coercion[2,3]. Survivors of sexual aggression are at increased risk for myriad negative outcomes, including increased risk for Post-Traumatic Stress Disorder or Major Depressive Disorder, substance misuse, and problems in academic, social, and occupational functioning[4-6]. The adverse impact of sexual aggression victimization and the disproportionate amount of sexual aggression acts perpetrated by men against women[7] indicate a scientific imperative to better understand the mechanisms underlying male sexual aggression perpetration.

Prior work has identified several robust risk factors for sexual aggression: beliefs about women, sex, and sexual assault, collectively referred to as the Confluence Model[8-13], and acute alcohol intoxication[14-18]. Emerging evidence suggests that affective processes, such as emotion regulation, also contribute to perpetration risk[19-21]. The current study examines an integrated model of SA perpetration by evaluating the effects of Confluence Model predictors, acute alcohol intoxication, and emotion regulation on sexual aggression perpetration intentions.

Confluence Model

The Confluence Model proposes that sexual aggression perpetration results from the confluence of two distinct pathways: hostile masculinity and impersonal sex[8,9]. Hostile Masculinity (HM) reflects adversarial beliefs about sex, negative attitudes towards women and

victims of sexual assault, and a desire for dominance over women;impersonal sex (IS) reflects preference for frequent, casual sexual relationships and a view of sex as a conquest[8,9]. According to this model, HM and IS exert both independent and additive effects on risk for sexual aggression perpetration. Although the synergistic effects of HM and IS have mixed empirical support[22-24], the evidence for HM and IS as independent predictors of sexual aggression perpetration is robust[10-13]. HM and IS are associated with sexual aggression perpetration in cross-sectional, longitudinal, and prospective studies[10,23-28].

To-date, the predictive validity of HM and IS has primarily been assessed through survey methods. Few published studies have examined main effects of HM and IS on sexual aggression perpetration intentions in experimental contexts, and all but one of those focused exclusively on measures of HM. This is a significant gap, as experimental paradigms provide a controlled opportunity to evaluate temporal pathways from HM and IS to sexual aggression perpetration. Thus far, the limited experimental literature has largely failed to replicate the findings from cross-sectional and longitudinal survey data, generally finding indirect effects of confluence model constructs[29-31], particularly via acute intoxication[29,30]. Much more experimental work is warranted to evaluate the causal pathways from HM and IS to sexual aggression perpetration, especially in the context of other established predictors like alcohol.

Alcohol

Acute alcohol intoxication has emerged as a strong proximal predictor of sexual aggression perpetration, with roughly half of sexual aggression incidents committed by men who had consumed alcohol[14]. Cross-sectional and experimental studies have consistently demonstrated associations between acute alcohol intoxication and increased sexual aggression

perpetration[15-17]. Findings from prospective studies also suggest a link between increasing alcohol consumption and the initiation of sexual aggression perpetration[18].

Alcohol's association with sexual aggression, and transgressive behavior more broadly, is attributed to its adverse effects on information processing, a phenomenon known as alcohol myopia. Alcohol myopia theory posits that alcohol intoxication causes attentional "nearsightedness," restricting one's attention to the most salient cues in the environment[32]. This results in disproportionate attention to the more salient impelling ("go") cues at the expense of peripheral inhibiting ("stop") cues, allowing the impelling cues to exert an undue influence over behavior[32]. Alcohol myopia has been shown to account for alcohol's effects on a broad range of behaviors including risky sexual behavior, driving when intoxicated, and physical aggression[33].

According to alcohol myopia theory, the link between acute alcohol intoxication and sexual aggression perpetration is explained by an intoxicated perpetrator's increased attention to impelling cues (e.g. his own sexual arousal, the sexual attractiveness of a partner, the partner's consent to non-intercourse sexual behaviors) and his decreased attention to inhibiting cues (e.g. partner's non-consent cues, potential social or legal consequences of engaging in nonconsensual sexual activity). Although the research in this field is limited, experimental studies have found that alcohol interacts with impelling and inhibiting cues to predict sexual aggression behavior in analogue studies[34,35]. For example, a study of bar patrons found that BAC was associated with increased sexual aggression perpetration intentions when the target was wearing provocative clothing, suggesting the clothing served as a salient impelling cue[34].

Emotion Regulation

Emotion regulation (ER) is the process by which individuals influence their experience and expression of emotions and is conceptualized at both the trait- and state-level[36-38]. Trait ER

refers to one's general tendency to use certain strategies to regulate emotions, and state ER refers to the specific strategies one uses in-the-moment to modulate emotional arousal[37,38]. ER deficits have been linked with aggressive behaviors broadly[21,39,40] and with sexually aggressive behaviors specifically[19,41,42]. Several models of sexual aggression perpetration have included ER as an explanatory mechanism, theorizing that men who experience difficulties managing negative emotions may engage in sex and/or aggression as a means of modulating (negative) affect, particularly in response to provocation[43,44]. Consistent with this hypothesis, sexually aggressive men with poor ER abilities were more likely to respond aggressively to negative feedback or nonconsent from a female confederate[45,46].

Given that ER requires higher order cognitive processes likely impaired by acute alcohol intoxication, ER deficits may play a critical role in alcohol-involved sexual aggression. Specifically, acute intoxication may exacerbate difficulties modulating emotion and inhibiting behavioral responses, resulting in greater sexual aggression perpetration. In line with this hypothesis, alcohol's association with increased dating violence and sexual aggression perpetration is stronger for men with poor trait ER[20,21]. Because trait ER is unable to capture situational variability[38,47,48], it is not clear whether 1) acute intoxication is impairing ER ability in some men and 2) this reduced ER capacity is temporally linked to subsequent sexual aggression perpetration. Thus, understanding the role of ER on an event-level (state ER) on its own and in conjunction with alcohol intoxication is essential to determining ER's relevance to an etiological model.

Present Study

While research has evaluated the links between both alcohol and the Confluence Model and alcohol and ER in sexual aggression perpetration, no work to-date has examined a

comprehensive model of sexual aggression perpetration that accounts for all three of these constructs. This is a significant gap, as there is evidence to suggest that acute intoxication may influence the effects of Confluence Model constructs and ER on sexual aggression perpetration[20,21,49,50]. The current study has two primary goals: 1) to advance the experimental literature on the role of the Confluence Model in sexual aggression perpetration; 2) to evaluate the unique contribution of state ER on sexual aggression perpetration in the context of established predictors; and 3) to examine the interaction between state ER and alcohol on sexual aggression perpetration intentions using data from an alcohol administration experiment. We hypothesized that: higher scores on HM and/or IS would be associated with increased sexual aggression intentions (H1); alcohol intoxication would be associated with increased sexual aggression intentions (H2); poorer state ER would be associated with increased sexual aggression intentions (H3); state ER will moderate the association between alcohol intoxication and sexual aggression perpetration intentions, such that the association between alcohol intoxication and sexual aggression perpetration strengthens as ER decreases (H4).

Method

All recruitment and study procedures for the primary study were approved by the Institution's Human Subjects Division of the Institutional Review Board. For detailed description of study recruitment and procedure, see [51].

Participants

One hundred and one men were recruited from a metropolitan community in the Pacific Northwest. Inclusion criteria included: a) single men age 21-30; b) at least one instance of condomless penetrative sex with a woman in the past six months; c) at least two female sexual

partners in the past six months; d) average weekly alcohol consumption of at least five drinks; e) at least one instance of heavy episodic drinking (HED, five drinks over a two hour period) in the past 6 months; f) no history of alcohol use problems (assessed through Brief Michigan Alcohol Screening Test[52]). The inclusion criteria related to risky sexual behavior (e.g. condomless sex, number of partners) and HED were used to obtain a sample at an elevated risk of perpetration, as both have been linked to increased likelihood of perpetration[13,53]. Exclusion criteria included any current medication or medical condition that would be contraindicated with alcohol consumption.

Of the 101 men included in the study, 91 were retained for analyses. Six were excluded for missing all measures of a variable of interest and two were excluded for nonsensical responses for number of lifetime opposite sex partners**.** The sample was approximately 55% White, 19% Multiracial (or other), 12% Asian or Asian-American, 9% Black or African-American, and 1% Hawaiian or Pacific Islander. The remaining 4% of the sample did not provide information on their racial identity. The mean age for the sample was 24.57 (SD = 2.84) and slightly less than half the sample were current full- or part-time students (47%). About 42% of the sample reported completing some college, 38% reported completing college or a graduate degree, 18% reported completing high school, vocational school, or a GED, and 2% reported completing some high school.

Procedure

Participants arrived at the laboratory where a male experimenter verified their identity and age, compliance with pre-session procedures and confirmed they had a BrAC of 0.00 through a breathalyzer (Alco-Sensor IV; Intoximeters, Inc). Participants then provided informed consent and were weighed to calculate their correct beverage dose. After completing

background measures, participants were block randomized to an alcohol condition (target peak BrAC = .10 % gm) or sober control by past sexual aggression perpetration history. For more detailed information on procedure, see [51].

Beverage Administration

Participants in the alcohol condition were administered 1.25 ml ethanol per pound of body weight to reach the target peak BrAC of .10% gm. Those in the control condition were given 1.25 ml water per pound of body weight. Upon completion of rinsing procedures, participants in the alcohol condition were Breathalyzed every four minutes until BrAC = .07% gm. Each control participant received the same number of Breathalyzer checks as a yoked participant in the alcohol condition to account for possible time and idiographic absorption effects.

Sexual Aggression Analogue

Participants were asked to read and project themselves into a detailed, sexually explicit sexual aggression scenario. The vignette, written in the second person at a fifth grade reading level, was based on vignettes used in prior research[54] and updated through interviews with men recruited using the study's inclusion and exclusion criteria. Briefly, the scenario depicts a sexual encounter between the participant and a hypothetical woman ("Michelle") with whom the protagonist previously had consensual sexual intercourse. The vignette begins at a party, where the protagonist briefly converses with Michelle, and is provided with cues that she is experiencing impairment from intoxication (e.g. number of drinks she consumed, unsteady gait). The two go to Michelle's apartment and engage in consensual non-penetrative sexual activity (e.g. kissing, fondling, nudity) which is described in detailed, highly eroticized language. The protagonist attempts to initiate penetrative sex multiple times. Michelle responds to the initial

attempts with nonverbal non-consent cues (e.g. moving protagonist's hand away from genitals) and subsequent attempts with verbal non-consent cues (e.g. "I don't want to have sex tonight"). The scenario concludes with no depiction of completed rape. Participants then rated their state ER when reading the vignette and their intentions to engage in sexual aggression in the hypothetical scenario.

Upon completion of the study measures for participants in the sober condition and after detox (BrAC <.03%) for participants in the alcohol condition, participants were immediately debriefed, paid $15/hr, and given a bus voucher.

Measures

Past Adult Sexual Aggression Perpetration: Sexual aggression perpetration since age 14 was assessed with the revised Sexual Experiences Survey Long-Form Perpetration (SES[55]) and the Sexual Strategies Survey (SSS[56,57]). The SES assesses the frequency (0-3+ times) participants performed a range of nonconsensual sexual acts (unwanted sexual contact, attempted or completed oral sex, attempted or completed penetrative sex) and tactics (verbal coercion, intoxication, and force) since the age of 14. The SSS asks participants to report (Y/N) their use of a range of tactics (sexual enticement, verbal coercion, intoxication, and force) to engage in unwanted sexual activity with a woman. A combined past sexual aggression perpetration score was computed for the SES and SSS. Any tactic endorsed on the SSS but not SES was counted as one incidence (up to three) of the relevant SES tactic. Then, a weighted score was calculated with severity of tactic multiplied by frequency of use (see [58]), and total score was collapsed into an ordinal variable with three levels: no past sexual aggression perpetration, low past sexual aggression perpetration ($\leq$ sample mean), and high past sexual aggression perpetration (> sample mean).

Hostile Masculinity: Hostile Masculinity was measured with the Updated Illinois Rape Myth Acceptance Scale (IRMA[59]), Adversarial Heterosexual Beliefs Scale[60], and the Sex Roles and Beliefs Scale[61]. The IRMA is a 22-item measure where participants rate their agreement (1 = strongly disagree, 7 = strongly agree) with statements pertaining to four subscales of rape myth acceptance: She Asked for It, It Wasn't Really Rape, He Didn't Mean To, and She Lied. The IRMA has demonstrated reliability (α = .87) and validity[59]. The Adversarial Heterosexual Beliefs Scale asks participants to rate their agreement (1 = strongly disagree, 7 = strongly agree) with statements like "men and women cannot really be friends" and has demonstrated reliability (α = .79) and validity[60]. Three subscales were used from Burt's (1980) Sex Roles and Beliefs Scale, which has participants rate their agreement with various statements on a seven point Likert scale: Sex Role Stereotyping (α = .80), Sex Role Conservatism (α = .81), and Acceptance of Interpersonal Violence (α = .59).

Impersonal Sex: Impersonal sex was operationalized as number of opposite sex partners with whom the participant reported having vaginal intercourse[25].

Emotion Regulation: State ER was measured with the State-Difficulties in Emotion Regulation Scale (SDERS[38]) which asked participants to rate (1 = not at all, 5 = completely) the extent to which various statements applied to them when they read the vignette. The S-DERS assesses acceptance of current emotions (seven items; "I felt like a weak person for feeling this way"), ability to modulate emotional and behavioral response (seven items; "My emotions felt overwhelming"), awareness of current emotions (five items, "I took the time to figure out what I was feeling"), and emotional clarity (two items, "I was confused about how I feel"). A total

mean score was calculated, with higher scores indicating greater emotion dysregulation. The S-DERS has demonstrated good reliability (α = .86) and validity[38].

Sexual Aggression Intentions: Participants were asked to rate their likelihood on a scale from one (not at all likely) to seven (extremely likely) of engaging in unwanted sex with Michelle. The tactics were derived from the SES and SSS and included seduction, verbal coercion, intoxication, threats, and force. A total mean score was calculated and then collapsed into an ordinal variable with three levels: no sexual aggression intentions, low sexual aggression intentions ($\leq$ sample mean), and high sexual aggression intentions (> sample mean).

Data Analyses

Statistical analyses were performed in R version 1.2.5001. Ordinal logistic regressions were run regressing hostile masculinity, impersonal sex, alcohol condition, state emotion regulation, and alcohol condition x state emotion regulation on sexual aggression intentions, with past sexual aggression perpetration included as a covariate. All continuous variables (HM, IS, and state emotion regulation) were mean-centered. Average marginal effects (AME) for the alcohol condition x state emotion regulation interaction were calculated using the margins package in R[62].

Results

Of the 91 men included in the study, 33 (36%) reported no past sexual aggression perpetration, 37 (41%) reported low past sexual aggression perpetration, and 21 (23%) reported high past sexual aggression perpetration. In response to the hypothetical sexual aggression scenario, 35 (38%) endorsed no sexual aggression perpetration intentions, 27 (30%) endorsed

low sexual aggression perpetration intentions, and 29 (32%) endorsed high SA perpetration intentions.

Results from the ordinal logistic regression can be found in **Table 1**. Past perpetration had a statistically significant linear association with sexual aggression intentions and was retained as a covariate in the model. Hypothesis 1 was partially supported; higher HM scores were associated with increased likelihood of endorsing sexual aggression perpetration intentions (β = .05, SE = .02, p = .002). Contrary to Hypothesis 2, there was no statistically significant effect of alcohol condition on sexual aggression perpetration intentions. Consistent with Hypothesis 3, poorer state ER was associated with increased likelihood of endorsing sexual aggression perpetration intentions (β = 1.39, SE = .65, p = .031). Contrary to Hypothesis 4, there was a statistically significant interaction between alcohol condition and state ER (β = -2.02, SE = .90, p = .02), but only for the control group. As depicted in **Figure 1**, greater emotion dysregulation predicted greater likelihood of endorsing sexual aggression perpetration intentions in the control group (AME = -.27, SE = .11, p = .016) but not the alcohol group.

Despite the range of tactics encompassed by the sexual aggression perpetration intentions variable, excluding the most severe tactics (physical force and threat of physical force) from analysis had no effect on the results (see Appendix 1).

Discussion

The present study examined the effects of Confluence Model constructs (HM and IS), alcohol intoxication, and state ER on sexual aggression intentions. Results partially supported Hypothesis 1; HM but not IS was associated with significantly greater sexual aggression

intentions. Poorer state emotion regulation was associated with significantly increased sexual aggression intentions (Hypothesis 3), although this association only held for sober individuals.

These findings provide experimental support for the temporal role of HM in sexual aggression perpetration. Despite consistent empirical support for the confluence model at the aggregate level[10,23-28], the dearth of experimental and event-level research limited the confluence model's application to temporal models. Although further replication is needed, the main effect of HM on sexual aggression intentions in this sample suggests that previous failures to replicate confluence model effects in experimental literature may not reflect an inherent incompatibility of confluence model constructs with temporal models.

That IS had no effect on sexual aggression intentions is surprising, although survey-based studies have found evidence to suggest it may offer more limited predictive ability than HM[24,63]. This finding may also be accounted for by the high-risk nature of the study sample (moderate to heavy drinkers with a recent incidence of condomless sex); compared to the general population, our sample may be relatively high in IS. Replication is needed to determine whether IS predicts event-level sexual aggression risk in a broader population, particularly given the dearth of experimental studies on this association. The absence of any main effect of alcohol on sexual aggression intentions was also unexpected but may also be explained by the high-risk nature of the sample. However, this finding is consistent with studies employing vignettes as sexual aggression analogues which tend to find indirect rather than direct effects of alcohol[15] on sexual aggression.

Study results provide support for Hypothesis 3 but not Hypothesis 4; state emotion dysregulation was associated with greater sexual aggression perpetration intentions, but only for sober men. Results from men in the no-alcohol condition are consistent with prior work on

global associations between trait ER and aggression[39], trait ER and interpersonal violence[64], and trait ER and sexual aggression[19,20,42,65]. The absence of an association between state ER and sexual aggression intentions in intoxicated men was surprising, given that low trait ER has been shown to strengthen the relationship between alcohol and dating violence[21] and sexual aggression perpetration[20]. It is unclear why state ER was unrelated to sexual aggression intentions in intoxicated men. How alcohol impacts the deployment and execution of ER strategies in-the-moment (i.e. at the state level) is currently unknown, and further research is needed to delineate alcohol's effects on state ER broadly as well as in the context of sexual aggression perpetration.

Novel to the current study is the evaluation of HM and IS within an experimental context and the integration of these constructs with alcohol and state ER to predict sexual aggression intentions. Unlike prior experimental studies, which relied on single measures of HM, the present study employed multiple measures to capture the various facets of the latent construct of HM. Although replication is needed, the alcohol administration procedure and highly descriptive eroticized vignette lend significant internal validity to these findings. This study extends prior work with this sample that found a moderating effect of state ER on the association between anger and sexual aggression perpetration intentions[51] but did not have the power to evaluate the interaction between alcohol condition and state ER. The impact of state ER on sexual aggression intentions in the previous study was significant for men high but not low in state anger, suggesting that state anger may account for some of the variance in state ER[51]. One can infer from both studies that although ER can mitigate sexual aggression intentions, its actual implementation and efficacy is likely context-dependent. Further studies are required to identify

sexual aggression congruent emotions amenable to ER strategies and to ascertain how acute intoxication influences these emotions and their response to ER strategies.

Unlike the prior study, the present study evaluates the impact of state ER on sexual aggression intentions while accounting for the contribution of HM and IS. In addition, this study included a broad array of sexual aggression tactics, specifically those related to sexual enticement strategies which may also contribute to the differential effect of state emotion regulation. Sexual enticement tactics, also referred to as coaxing, involve efforts to obtain sex from a nonconsenting partner through seduction[56,66]. Although enticement strategies deviate less significantly from traditional sexual scripts than other tactics, they are sexual acts attempted or committed against a nonconsenting individual, consistent with the consensus definition of sexual aggression[2,3]. Furthermore, a measure including enticement items demonstrates appropriate Rasch properties, suggesting enticement, verbal coercion, intoxication, threats, and force represent an underlying unidimensional continuum[67].

Several study limitations warrant caution in interpreting and extending findings. The number of indicators was chosen through theoretical rationale, and the sample size was smaller than what is typically recommended for ordinal logistic regression. In addition, the use of a high-risk sample and a relatively high target BAC limit the generalizability of the findings. Further studies on the roles of state ER and alcohol intoxication in sexual aggression perpetration are needed in larger, representative samples.

This study found that HM predicted event-specific SA intentions and that state emotion dysregulation contributes to SA intentions above and beyond the effects of past perpetration and HM in sober men. Further research is needed to understand how alcohol intoxication impacts ER implementation and efficacy broadly as well as in relation to SA perpetration. The results of this

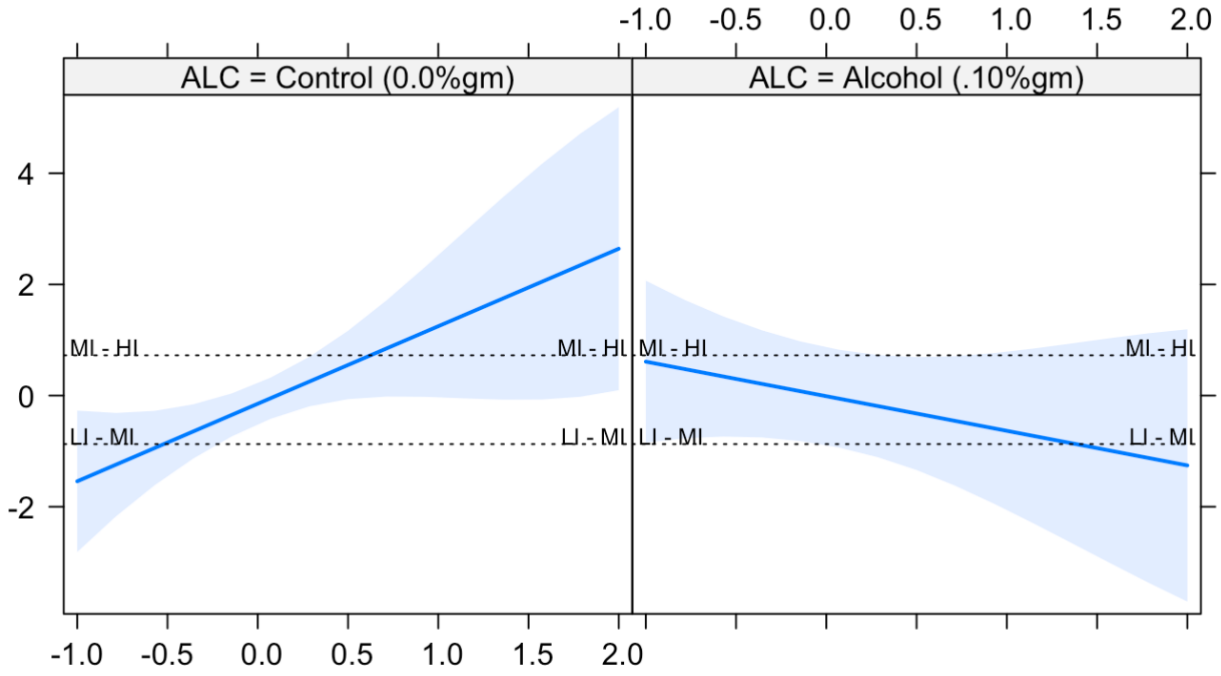
study can be taken as preliminary support for ER as a promising intervention target for non-alcohol-involved SA, an approach that has already demonstrated positive effects[42]. Consistent with our findings, a recent study also found an ER intervention to be effective in reducing SA intentions in sober but not intoxicated men, and future studies are needed to ascertain whether ER-based interventions are applicable to alcohol-involved SA[46].

Figures & Tables

Table 1. Logistic Regression Results: Sexual Aggression Perpetration Intentions ~ Alcohol Condition, HM, IS, State ER, and State ER x Alcohol Condition

	Beta	SE	t	p	OR (95% CI)
Past Perpetration (Linear)	**.89**	**.43**	**2.07**	**.039**	**2.44 (1.06, 5.84)**
Past Perpetration (Quadratic)	.33	.36	.93	.351	1.39 (.70, 2.84)
Hostile Masculinity	**.05**	**.02**	**3.09**	**.002**	**1.05 (1.02, 1.09)**
Impersonal Sex	.03	.02	1.78	.075	1.03 (1.00, 1.07)
Alcohol condition (Y)	.14	.43	.31	.756	1.14 (.49, 2.69)
State ER	**1.39**	**.65**	**2.15**	**.031**	**4.03 (1.23, 15.97)**
Alcohol (Y)*State ER	**-2.02**	**.90**	**-2.25**	**.02**	**.13 (.02, .73)**

Figure 1. Alcohol x State ER Centered Effect Plot.



X-axis is mean-centered state ER. Y-axis is predicted probabilities in logit scale.

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Appendix

Supplementary Table 1. Key for Table 2: Tactic Labels and Stimulus Materials

Tactic 1	Try to persuade Michelle to have sex with you
Tactic 2	Continue kissing and touching Michelle until she agrees to have sex with you
Tactic 3	Get Michelle so sexually excited that she agrees to have sex
Tactic 4	Get Michelle really aroused and then start having sex
Tactic 5	Seduce Michelle until she is willing to have sex
Tactic 6	Offer to get Michelle another drink
Tactic 7	Encourage Michelle to have another drink
Tactic 8	Tell Michelle how happy you would be if you had sex
Tactic 9	Tell Michelle how upset you would be if you did not have sex
Tactic 10	Tell Michelle how angry you would be if she insists on not having sex
Tactic 11	Promise to have a relationship with Michelle so she will have sex with you
Tactic 12	Tell Michelle she is special so that she will have sex with you
Tactic 13	Tell Michelle you trust each other so she will have sex with you
Tactic 14	Tell Michelle you love her so that she will have sex with you
Tactic 15	Threaten to hurt Michelle if she will not have sex with you
Tactic 16	Use physical force to get Michelle to have sex with you
Tactic 17	Make sure you have sex with Michelle no matter what

Supplementary Table 2. Tactic Correlation Table.

Variable	Tactic 1	Tactic 2	Tactic 3	Tactic 4	Tactic 5	Tactic 6	Tactic 7	Tactic 8	Tactic 9	Tactic 10	Tactic 11	Tactic 12	Tactic 13	Tactic 14	Tactic 15	Tactic 16	Tactic 17
Tactic 1		0.773	0.695	0.713	0.714	0.575	0.751	0.735	0.588	0.447	0.586	0.705	0.788	0.541	0.371	0.443	0.592
Tactic 2			0.796	0.811	0.793	0.607	0.661	0.726	0.48	0.425	0.548	0.753	0.692	0.588	0.42	0.354	0.613
Tactic 3				0.891	0.947	0.548	0.546	0.667	0.373	0.32	0.474	0.629	0.577	0.441	0.273	0.258	0.461
Tactic 4					0.909	0.597	0.632	0.693	0.384	0.338	0.48	0.67	0.6	0.472	0.286	0.255	0.489
Tactic 5						0.543	0.583	0.679	0.397	0.338	0.471	0.671	0.607	0.445	0.277	0.27	0.468
Tactic 6							0.79	0.497	0.534	0.444	0.477	0.513	0.483	0.363	0.42	0.337	0.438
Tactic 7								0.68	0.629	0.536	0.651	0.649	0.69	0.592	0.479	0.396	0.66
Tactic 8									0.719	0.655	0.723	0.758	0.774	0.721	0.601	0.509	0.799
Tactic 9										0.883	0.838	0.691	0.745	0.705	0.85	0.736	0.818
Tactic 10											0.88	0.655	0.643	0.782	0.935	0.729	0.808
Tactic 11												0.825	0.812	0.821	0.829	0.743	0.87
Tactic 12													0.946	0.8	0.623	0.582	0.799
Tactic 13														0.793	0.612	0.572	0.792
Tactic 14															0.796	0.564	0.857
Tactic 15																0.721	0.795
Tactic 16																	0.682