



Published in final edited form as:

Violence Against Women. 2018 September ; 24(11): 1327–1348. doi:10.1177/1077801218787927.

MEN WHO SEXUALLY ASSAULT DRINKING WOMEN: SIMILARITIES AND DIFFERENCES WITH MEN WHO SEXUALLY ASSAULT SOBER WOMEN AND NONPERPETRATORS

Sheri E. Pegram, Ph.D.¹, Antonia Abbey, Ph.D.¹, Breanne R. Helmers, MS¹, Massil Benbouriche, Ph.D.¹, Zunaira Jilani, MS¹, Jacqueline Woerner, Ph.D.²

¹Wayne State University

²Yale University School of Medicine

Abstract

Little is known about the attributes of men who sexually assault drinking women as compared to men who sexually assault sober women and nonperpetrators. Findings from a cross-sectional survey of 548 men and a laboratory computer-simulated date completed by a subset ($n = 87$) support the hypothesis that both groups of perpetrators would share some common risk factors and differ regarding alcohol beliefs and consumption. Men who had previously assaulted a drinking woman gave their simulated date more alcohol to drink and perceived her as being more disinhibited. These findings demonstrate the power of alcohol expectancies and stereotypes about drinking women.

Keywords

sexual aggression; alcohol; alcohol expectancies

Approximately one-quarter to one-half of young adults report that they consumed alcohol prior to their most recent sexual episode (Cooper, 2006; Desiderato & Crawford, 1995; MacNair-Semands & Simono, 1996; Patrick & Maggs, 2009). Many people believe that alcohol increases sexual arousal and enhances sexual performance; thus, they often intentionally drink before potential sexual encounters (Abbey, McAuslan, Ross, & Zawacki, 1999; Cooper, 2002). Unfortunately, alcohol consumption is associated with nonconsensual as well as consensual sex (Abbey, Wegner, Woerner, Pegram, & Pierce, 2014; Claxton, DeLuca, & van Dulmen, 2015; Cooper, 2002). Numerous studies have found that both perpetrators and victims report consuming alcohol in about half of all sexual assaults; furthermore, if one is drinking, then usually both are drinking (Abbey et al., 2014; Testa, 2002; Zawacki, Abbey, Buck, McAuslan, & Clinton-Sherrod, 2003). Although many studies have examined risk factors for perpetrating sexual aggression (Abbey, Jacques-Tiura, & LeBreton, 2011; Davis, Schraufnagel, George, & Norris, 2008; DeGue & DiLillo, 2004; White & Smith, 2004), most studies do not evaluate if risk factors differ based on the

victim's alcohol consumption. Thus, the goal of this study was to examine similarities and differences in risk factors found for men who sexually assault drinking women as compared to men who sexually assault sober women and nonperpetrators. The following sections briefly summarize relevant research and describe our hypotheses.

Expectancy Effects of Alcohol

Beliefs about the effects of alcohol influence people's perceptions and behavior, and, potentially, increase the propensity for sexual aggression (Abbey, 2002; 2011). Expectancies about alcohol's effects on behavior can produce a confirmation bias (Snyder & Stukas, 1999). For example, men who anticipate that alcohol will enhance their sex drive are likely to behave consistently with this expectation when they are drinking, and may be motivated to drink when they want to engage in sexual activity (Abbey et al., 1999; Dermen & Cooper, 1994). In addition, men's beliefs about drinking women (e.g., women who drink alcohol are sexually loose) may shape the way they perceive interactions with women who are drinking, such that they seek out information that confirms their beliefs and minimize information that contradicts them (Abbey, 2002; 2017). When men assume that a drinking woman is looking to have sex with someone, they are at increased risk of misperceiving friendly cues as signs of sexual interest (Abbey, McAuslan, & Ross, 1998). Consistent with this line of reasoning, multiple vignette studies have found that participants assume that a drinking woman is more interested in having sex with her male companion than is a nondrinking woman (Abbey & Harnish, 1995; George, Cue, Lopez, Crowe, & Norris, 1995; Norris & Cubbins, 1992).

Alcohol as a Risk Factor for Sexual Assault Perpetration

Numerous studies have demonstrated that sexually aggressive men differ from nonsexually aggressive men on many alcohol-related behaviors and beliefs. Sexual assault perpetrators have stronger sexuality-related alcohol expectancies than do nonperpetrators (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001; Tuliao & McChargue, 2014; Wilson, Calhoun, & McNair, 2002). Sexual assault perpetrators also consume more alcohol, overall and in sexual situations; engage in more heavy episodic drinking; and have more alcohol-related problems (for reviews see Abbey, 2002; Abbey et al., 2014; Testa, 2002). In a recent study of male college students, frequency of party and bar attendance were significantly associated with sexual aggression, even after controlling for heavy episodic drinking and other attitudinal and personality risk factors for perpetration (Testa & Cleveland, 2017). The authors explained these findings in the context of the strong expectancies that college students have that they can find sex partners at bars and parties. Consequently, simply being in a specific drinking setting that promotes the idea of sexuality, may activate sexual expectancies; and then actual consumption may make these expectancies even more salient (LaBrie, Grant, & Hummer, 2011).

Other Common Risk Factors for Sexual Assault Perpetration

Over the past several decades, researchers have established that sexual assault perpetrators differ from nonperpetrators on multiple personality, attitudinal, and experiential factors (see Tharp et al., 2012 for a review). As compared to nonperpetrators, perpetrators tend to score

higher on measures of personality traits associated with psychopathy including callous affect, interpersonal manipulation, narcissism, and impulsivity (Abbey & Jacques-Tiura, 2011; Kingree & Thompson, 2015; Kosson, Kelly, & White, 1997). Perpetrators also are more likely than nonperpetrators to endorse gender-related beliefs that justify forced sex including hostility toward women, rape myths, and sexual dominance (Abbey, Parkhill, BeShears, Clinton-Sherrod, & Zawacki, 2006; Loh, Gidycz, Lobo, & Luthra, 2005; Malamuth, Sockloskie, Koss, & Tanaka, 1991). In addition, perpetrators often prefer casual, uncommitted sex, as evidenced by perpetrators' higher number of sex partners, one-night stands, and stronger positive attitudes about casual sex as compared to nonperpetrators (Abbey et al., 2011; DeGue & DiLillo, 2004; Kanin, 1967; Malamuth et al., 1991).

Characteristics of Men Who Sexually Assault Drinking Women

Little is known about the characteristics of men who sexually assault drinking women as compared to men who sexually assault sober women. We are aware of two credible hypotheses. The first hypothesis expressed in the literature is that men who sexually assault drinking women are men who tend to consume alcohol in many different types of social situations, including potential sexual situations. Thus, these men are not specifically targeting drinking women; instead, they tend to socialize with women when they are both consuming alcohol. This hypothesis is supported by the findings from Zawacki et al.'s (2003) cross-sectional comparison of male college students divided into three mutually exclusive groups: (1) men who perpetrated sexual assault when either they or the victim was drinking alcohol, (2) men who perpetrated sexual assault when neither was drinking alcohol, and (3) men who did not perpetrate sexual assault. Zawacki et al. found that both alcohol-involved and non alcohol-involved perpetrators had higher scores on aggressiveness, delinquency, sexual dominance, positive attitudes about casual sex, and misperception of women's friendliness as sexual interest as compared to nonperpetrators. However, the two groups of perpetrators differed on alcohol-related risk factors. As compared to nonperpetrators and non alcohol-involved perpetrators, alcohol-involved perpetrators more strongly believed that women drank as a cue that they wanted to have sex, had stronger alcohol expectancies, were more impulsive, and drank more in sexual situations. These findings support the argument that a common core of risk factors is shared by perpetrators, regardless of whether alcohol was consumed during the incident. Kingree and Thompson (2015) conducted a conceptually similar study which divided male college students into the same three groups; however, they examined a somewhat different set of risk factors. In the bivariate analyses, impulsivity, rape myths, and hostility toward women distinguished both groups of perpetrators from nonperpetrators; heavy episodic drinking, anger, and peer influence uniquely distinguished alcohol-involved perpetrators from nonperpetrators.

The second hypothesis expressed in the literature is that men who sexually assault drinking women intentionally target intoxicated women because they expect them to be easier to control and exploit (Cleveland, Koss, & Lyons, 1999; Kanin, 1985; Warkentin & Gidycz, 2007). This hypothesis suggests that these perpetrators would have more extreme scores than men who sexually assault sober women on some risk factors, particularly psychopathy-related personality traits that reflect a willingness to harm others without concern or remorse (Kosson et al., 1997; Munoz, Khan, & Cordwell, 2011). We are not aware of a study that

directly tested this hypothesis, although we are aware of several studies that compared perpetrators who used the victim's incapacitation as their primary tactic to perpetrators who used other tactics and nonperpetrators (Abbey & Jacques-Tiura, 2011; Tyler, Hoyt, & Whitbeck, 1998; Zinzow & Thompson, 2015). For example, Abbey and Jacques-Tiura (2011) divided a cross-sectional sample of male community residents into three mutually-exclusive groups: (1) men who perpetrated sexual assault using the victim's impairment as their primary tactic (e.g., she was passed out or too incapacitated to give consent), (2) men who perpetrated sexual assault using verbal coercion as their primary tactic, and (3) men who did not perpetrate sexual assault. For several risk factors, they found that nonperpetrators had the lowest scores, perpetrators who used the victim's impairment had the highest scores, and perpetrators who used verbal coercion had scores that fell in between, with each group's scores significantly different from the others. This pattern occurred for personality traits related to psychopathy, antisocial behavior, hostility toward women, stereotypic attitudes about women, and drinking problems. For other risk factors, including positive attitudes about casual sex and number of sex partners, both groups of perpetrators had significantly higher scores than nonperpetrators. It is also noteworthy that perpetrators who used impairment tactics reported that they and the victim consumed significantly more alcohol during the incident (an average of 6.8 for her and 7.2 for him) than did perpetrators who used verbal coercion (an average of 1.6 for her and 2.1 for him) and nonperpetrators on their worst date (an average of 1.9 for her and 2.1 for him). These findings support the argument that perpetrators who use the victim's impairment to obtain sex may have a more extreme risk profile than perpetrators who use coercion tactics; however, the fact that they were also drinking heavily does not support the premise that they remain sober to retain control of a carefully planned situation (Kanin, 1985; Lyndon, White, & Kadlec, 2007).

Overview of Goals and Hypotheses

Goal 1.

Although alcohol is a well-established risk factor for sexual aggression, little is known about the attributes of men who sexually assault drinking women as compared to men who sexually assault sober women. Thus, based on participants' self-reports, we classified them as: (1) perpetrators with drinking victims, (2) perpetrators with sober victims, and (3) nonperpetrators. Consistent with previous research reviewed above which identified risk factors for sexual aggression, we hypothesized that compared to nonperpetrators, both types of perpetrators would report greater psychopathy-related personality traits, sexual dominance motivation, and casual sexual behavior and attitudes.

Hypotheses about what distinguishes perpetrators who sexually assault women who are drinking alcohol from perpetrators who sexually assault sober women, as well as from nonperpetrators, were primarily based on Zawacki et al.'s (2003) findings. Although our focus was on the woman's drinking, most past research finds that perpetrators and victims' alcohol consumption in the incident are strongly positively correlated (Abbey, Clinton-Sherrod, McAuslan, Zawacki, & Buck, 2003; Ullman, Karabatsos, & Koss, 1999; Zawacki et al., 2003); consequently, it is likely that many perpetrators with drinking victims were also drinking alcohol. Thus, we hypothesized that perpetrators who sexually assault women who

are drinking alcohol would differ from perpetrators who sexually assault sober women and nonperpetrators by having stronger sex-related alcohol expectancies, stronger stereotypes about drinking women, more frequent misperception of women's sexual intent, and more alcohol consumption in sexual situations. Although some of these men might be strategically targeting intoxicated women; given the high rates of alcohol consumption reported by young adults in potential sexual situations, our expectation was that the woman's drinking was often simply a byproduct of the fact that they were spending time at a party or bar (Cowley, 2014). Thus, we did not anticipate that men who sexually assaulted drinking women would have more extreme scores on psychopathy-related personality traits as compared to men who sexually assaulted sober women.

Goal 2.

A subset of participants completed a laboratory session in which they went on a series of dates with a female agent in an interactive, two-dimensional virtual reality simulation. Thus, a secondary goal of this study was to determine if nonperpetrators, perpetrators with sober victims, and perpetrators with drinking victims differed in their interactions with and perceptions of the female agent. We expected that both groups of perpetrators would choose to engage in more sexual activities and be more persistent after refusals. Consistent with their past behavior, we hypothesized that men with a history of sexually assaulting drinking women would give themselves and the woman more alcohol to drink in the simulation as compared to nonperpetrators and perpetrators with sober victims. Further, in line with alcohol expectancy theories, we also hypothesized that men with a history of sexually assaulting drinking women would be more likely to perceive that the woman was intoxicated and believe that alcohol had a disinhibiting effect on her behavior as compared to nonperpetrators and perpetrators with sober victims.

METHOD: ONLINE SURVEY

Participants

Participants were men who completed an online survey of dating decisions and behavior. Inclusion criteria required participants to be between the ages of 18 and 29, to be single, and to have dated a woman within the past two years. Participants were 22.37 years old ($SD = 2.90$), on average, at the time of the study. Self-reported ethnicity for the 556 men who completed the full survey was 54% Caucasian, 16% Asian, 10% Middle Eastern, 8% African American, 7% multiracial, 3% Hispanic, and 2% some other ethnicity.

Procedure

IRB approval was obtained for all the study's procedures. Participants were recruited through multiple strategies: advertisements were posted on local online websites, such as Craigslist; the study was posted on the university's psychology research pool; e-mails were sent to the university's Registrar's list of students; and flyers were posted in the nearby area in campus buildings as well as local businesses and restaurants. Participants who met the eligibility criteria described above completed an online survey which assessed study variables. Participants took approximately 30 min to complete the survey, and received extra

credit for an eligible psychology course or were entered in a lottery to win a \$100 Amazon gift card.

Measures

Sexual aggression.—Participants' history of sexual aggression since age 14 was assessed using a modified 16-item version of the Sexual Experiences Survey (SES; Abbey et al., 2006; 2011; Koss et al., 2007; Koss, Gidycz, & Wisniewski, 1987). The SES has been used extensively to measure the use of sexually aggressive tactics (e.g., verbal pressure, victim's impairment or incapacitation, and physical force) to obtain unwanted sexual activity, ranging from forced contact to completed rape. Participants indicated how often they engaged in various sexual activities with a woman "when she didn't want to" through the use of various tactics. Response options ranged from 0 (*never*) to 5 (*five or more times*). The SES demonstrated good internal consistency reliability in the current study ($\alpha = .88$).

For each reported act, participants answered several follow-up questions, including the amount of alcohol they consumed and the amount the woman consumed. Responses to each of these questions were made on a 5-point scale with the response options: *none*, *1 or 2 drinks*, *3 or 4 drinks*, *5 or 6 drinks*, or *7 or more drinks*. Because some participants committed multiple acts of sexual aggression, they were coded as perpetrators who assaulted a woman who consumed alcohol if they reported that the victim consumed any amount of alcohol during any acts they reported. Participants were coded as perpetrators who assaulted a sober woman if they reported no alcohol consumption by the victim in all reported acts of sexual aggression.

Positive attitudes about casual sex.—Positive attitudes about casual sex were assessed using the 7-item Brief Sexual Attitudes Scale (Hendrick, Hendrick, & Reich, 2006). Participants were asked to indicate how much they agreed with the items on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include: "Casual sex is acceptable," and "It is okay to have ongoing sexual relationships with more than one person at a time." Cronbach's alpha in the current study was .88.

Number of one-night stands.—Participants were asked to report the number of different women with whom they had consensual intercourse on just one occasion. A square root transformation was conducted because the variable was positively skewed (Tabachnick & Fidell, 2007).

Misperception of sexual intent.—Participants completed a four-item measure that asked about their misperception of women's sexual intent in different types of relationships. This measure has been used in past research and demonstrated good internal consistency reliability (Abbey et al., 2011). Specifically, participants were asked how many times they had misperceived a woman's friendliness as a sexual come-on. Participants were also asked how many times they had misperceived an acquaintance, friend, and someone with whom they were dating or romantically involved. Coded responses ranged from 0 to 5 or more times.

Sex-related alcohol expectancies.—The 5-item Sex Drive subscale of the Alcohol Expectancies Regarding Sex, Aggression, and Sexual Vulnerability Questionnaire (Abbey et al., 1999) was used to assess participants' beliefs that alcohol enhances their sex drive. Participants were asked to indicate the extent to which they would feel sexually aroused, have a strong sex drive, be likely to initiate sex, want to have sex, and become sexually excited if they were under the influence of alcohol. Response options ranged from 1 (*not at all*) to 5 (*very much*). Cronbach's alpha in this study was .93.

Drinking in sexual situations.—Participants were asked to report how often they had consumed alcohol during consensual sexual situations. Response options ranged from 0 (*never*) to 6 (*nearly every time or every time*; Abbey et al., 1998).

Stereotypes about drinking women that justify forced sex.—This construct was assessed using the 5-item Stereotypes about Drinking Women Scale (Jacques-Tiura, Abbey, Parkhill, & Zawacki, 2007). Participants were asked to indicate the extent to which they agreed with the statements on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: "If a woman gets really drunk at a party, she is looking to be taken advantage of sexually," and "If a woman has a few drinks with a date, he should take this as a sign of her interest in having sex." This scale had a Cronbach's alpha of .91 in the current study.

Sexual dominance.—This construct was assessed using Nelson's (1979) 8-item Sexual Dominance Scale. Participants were instructed to read a list of sexual dominance motives for having sex and indicate how important each reason is on a scale ranging from 1 (*not at all important*) to 4 (*very important*). Sample items include: "It makes me feel masterful," and "I like the feeling of having another person submit to me." This measure demonstrated good internal consistency reliability in the current study ($\alpha = .84$) and in past research (Abbey et al., 2006; 2011; Wheeler, George, & Dahl, 2002).

Psychopathy-related traits.—To assess psychopathy-related personality traits, the 10-item Callous Affect and 10-item Interpersonal Manipulation subscales of the Hare Self-Report Psychopathy Scale were used (Williams, Paulhus, & Hare, 2007). Participants were instructed to indicate the extent to which they agreed with the items on a scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Sample items include: "I'm not afraid to step on others to get what I want." and "I find it easy to manipulate people." This measure demonstrated good internal consistency reliability in the current study ($\alpha = .81$).

RESULTS: ONLINE SURVEY

Descriptive Information

After reviewing the data, 146 of the 718 records were omitted because these individuals did not complete the full questionnaire (e.g., skipped at least 20% of the questions). An additional 16 individuals were omitted because of long strings of identical responses, leaving 556 participants in the datafile.

Thirty-five percent ($n = 196$) of participants reported at least one act of sexual aggression since the age of 14. As found in past studies, typically when the victim consumed alcohol, so did the perpetrator. There were only eight men (4% of perpetrators) who reported that they consumed alcohol when the victim did not. Given that the vast majority of sober victims had sober perpetrators, these eight men were excluded from the analyses reported in this paper (analysis $n = 548$). Among the remaining perpetrators, 101 men (52% of all perpetrators) sexually assaulted a sober woman and 87 men (44% of all perpetrators) sexually assaulted a woman who drank alcohol. Recognizing that some men reported more than one sexually aggressive act that involved alcohol, we evaluated the highest number of drinks they reported being consumed in any single act. Among men who sexually assaulted drinking women, 11.5% did not consume any alcohol, 12.6% had a maximum number of 1 or 2 drinks in an incident, 21.8% had 3 or 4 drinks, 23% had 5 or 6 drinks, and 31% had 7 or more drinks ($M = 4.10$, i.e., approximately 5 drinks, $SD = 2.51$). Regarding victims' alcohol consumption, 31% reported that the woman had a maximum number of 1 or 2 drinks, 33.3% had 3 or 4 drinks, 10.3% had 5 or 6 drinks, and 25.3% had 7 or more drinks ($M = 3.60$; i.e., approximately 4 drinks, $SD = 2.33$). Means and standard deviations are provided in Table 1 for all the study variables.

Analytic Approach

Multinomial logistic regression models were conducted using SPSS version 24.0. Given the categorical nature of the outcome measure, two separate sets of regression models were conducted. The first model used nonperpetrators as the reference group; the second model used perpetrators with sober victims as the reference group. Furthermore, for each of these models, bivariate and multivariate models were computed with odds ratios and 95% confidence intervals. Odds ratios are equivalent to effect sizes, with 1.5 indicating a small effect size, 3.5 indicating a moderate effect size, and 9.0 indicating a large effect size (Cohen, 1988).

Bivariate Analyses

The first set of columns in Table 2 present the bivariate analyses in which each risk factor's association with the perpetration groups was individually examined. As can be seen in Table 2, there was a significantly increased likelihood of either type of perpetration (sober or drinking victim) associated with higher scores on psychopathy-related personality traits, sexual dominance, one-night stands, misperception of sexual intent, and stereotypes about drinking women. In addition, several of the sex and alcohol-related variables were significantly associated with an increased likelihood of sexually assaulting a drinking woman. Specifically, positive attitudes about casual sex, expectancies that alcohol enhances sex drive, and alcohol consumption in sexual situations were higher among perpetrators with drinking victims than nonperpetrators (these variables did not differentiate between perpetrators with sober victims and nonperpetrators).

Comparisons of the two perpetrator groups indicated that perpetrators with drinking victims had significantly higher scores on sexual dominance, positive attitudes about casual sex, misperception of sexual intent, stereotypes about drinking women, expectancies that alcohol enhances sex drive, and alcohol consumption in sexual situations. The two perpetrator

groups did not significantly differ in their scores on psychopathy-related traits and one-night stands.

Multivariate Analyses

The second set of columns in Table 2 display the multivariate results when all the risk factors were simultaneously examined. The model first included nonperpetrators as the reference group and fit the data well, $\chi^2 = 130.44$, $p < .001$, Nagelkerke $R^2 = .26$. There was a significantly increased likelihood of either type of perpetration (sober or drinking victim) associated with higher scores on psychopathy-related personality traits, misperception of sexual intent, and stereotypes about drinking women. In addition, a significantly increased likelihood of sexually assaulting a drinking woman was associated with sexual dominance and alcohol consumption in sexual situations (these variables did not differentiate between perpetrators with sober victims and nonperpetrators). Also, a significantly increased likelihood of sexually assaulting a sober woman was associated with the number of one night stands (this variable did not differentiate between perpetrators with drinking victims and nonperpetrators).

Multivariate comparisons of the two perpetrator groups indicated that perpetrators with drinking victims had significantly higher scores on misperception of sexual intent and alcohol consumption in sexual situations as compared to perpetrators with sober victims. The two perpetrator groups did not significantly differ on any of the other risk factors when they were simultaneously included in the model.

METHOD: LABORATORY SESSION

Participants

Of the men who completed the online survey, 87 participated in a laboratory session in which they went on computer-simulated dates with a female agent. Survey and laboratory data were linked through a randomly generated code. Among the 87 laboratory study participants, 19 reported committing at least one sexual assault with a drinking woman, 25 reported committing only sexual assaults that involved sober women, and 42 reported not committing any sexual assaults.

Procedure

The survey information sheet stated that participants might be contacted for another study. Data collection for the simulation was closed when the grant ended; at that point, 87 individuals had completed the lab session. Potential simulation participants were contacted by email or telephone and asked to participate in a study of dating decisions that would involve going on virtual date with a woman and then answering some questions. Interested individuals were scheduled for a session with a male experimenter. After reviewing the consent form, experimenters explained to participants that they would go on four dates with a female agent whom they would interact with through a computer. Participants were instructed to behave the way they would on an actual date with a woman. The simulation was developed by WorldViz LLC using Vizard technology and Python programming, and

underwent pilot testing and construct validity examination (Abbey, Pegram, Woerner, & Wegner, 2018).

Participants were first presented with images of four ethnically diverse women and asked to select the woman they wanted to date. Then participants were presented with a brief backstory which provided information about their relationship with the woman and where they had been that evening. The dates began in the woman's apartment, with them sitting on her couch, and the woman talking about where they had just been. Participants interacted with the woman from a first-person point of view, and made choices about what they wanted to do with the woman. They could engage in nonsexual activities, such as watch TV, ask her to talk, drink something (water or beer), and give her something to drink (water or beer). They also could choose to engage in sexual activities with the woman. She was programmed to accept some sexual activities (e.g., kiss, give her a back rub, touch her breasts [on later dates only]), in which case the participant would see the woman engage in that activity (e.g., for the kiss option, they would hear kissing noises and see her face come close and her eyes shut). The woman was programmed to refuse more extreme sexual activities (e.g., oral sex, penetrative sex). Participants could receive up to five refusals on a date; at that point, the screen faded out and the date ended. Participants completed a brief survey following the simulation to assess their perceptions of the woman. For additional information about construct validity and study procedures, see Abbey et al. (online first).

Measures

Behavior in the simulation.—Four types of actions that participants took in the simulation were relevant to this study's hypotheses: 1) the number of times **he drank alcohol**, 2) the number of times **he gave the woman alcohol** to drink, 3) the number of **sexual activities in which they engaged** (e.g., sexual activities she accepted), and 4) the number of **refusals** he received (e.g., sexual activities she refused). The number of times participants selected each action was summed to create a total score.

Perceptions of the woman.—Participants were asked **how intoxicated they thought the woman was** on each of the four dates, on a scale with response options ranging from 1 (*not at all intoxicated*) to 7 (*very intoxicated*). Responses were averaged across the four dates.

Participants also were asked to provide a written description of what effects alcohol had on the woman's behavior for each of the four dates. Two graduate students read each response and coded if there was any description of **alcohol having a disinhibiting effect** on the woman's behavior (1) or not (2). In actuality, the female agent's behavior did not alter based on the number of drinks consumed; thus, any perceptions that alcohol influenced her behavior were completely subjective. Table 3 provides illustrative quotes for each of these categories. Inter-rater agreement was 98%. The number of disinhibiting effect responses were summed across the four dates, thus responses ranged from 0 to 4.

RESULTS: LABORATORY SESSION

One-way analyses of variance were computed to examine differences between perpetrator groups. Table 4 provides means, standard deviations, and effect sizes (η^2) with .01 indicating a small effect size, .06 indicating a moderate effect size, and .14 indicating a large effect size (Cohen, 1988).

As can be seen in Table 4, significant effects were found for four of the six laboratory outcome measures. For significant effects, means were compared using the LSD test. Participants with a history of sexually assaulting drinking women gave themselves significantly more alcohol to drink in the simulation than did participants with a history of sexually assaulting sober women. They also gave the woman in the simulation significantly more alcohol to drink as compared to perpetrators with a history of sexually assaulting sober women and nonperpetrators. Perpetration status was unrelated to the number of sexual activities in which they engaged and the number of refusals they received in the simulation. Perpetrators with drinking victims also perceived the woman as being significantly more intoxicated and generated more examples of the disinhibiting effects that alcohol had on her as compared to perpetrators with sober victims and nonperpetrators.

GENERAL DISCUSSION

Thirty-five percent of the young, single men in this study reported that they had committed at least one sexually aggressive act since age 14, a rate that is comparable to that found in other studies (Abbey et al., 2001; 2011; DeGue & DiLillo, 2004; Koss et al., 1987; White & Smith, 2004). Also, as found in past research, approximately half of the sexual assaults involved alcohol consumption by the victim (44%) and/or perpetrator (43%). When the victim drank alcohol, approximately one-third of the time she consumed (as reported by the perpetrator) one or two drinks, approximately one-third of the time she consumed 3 or 4 drinks, and for the remaining one-third she consumed 5 or more drinks.

The primary hypotheses were largely supported. We had expected both types of perpetrators to score higher than nonperpetrators on personality, gender-related, and sex-related risk factors assessed in the initial survey, and not to significantly differ from each other. In the bivariate analyses, both groups of perpetrators differed from nonperpetrators in the expected direction on psychopathy-related personality traits, sexual dominance, one night stands, misperception of sexual intent, and (unexpectedly) stereotypes about drinking women, with effect sizes ranging from small to medium. In the multivariate analyses, these differences remained for psychopathy, misperception of sexual intent, and stereotypes about drinking women, and effect sizes were small. It is not surprising that some variables were significantly related to perpetration group only in the bivariate analyses. Some of these variables were multiple indicators of the same construct and some may have indirect effects that are mediated through other constructs. Overall, these findings are consistent with past research which suggests that although there are differences between perpetrators which warrant more exploration, there are also core risk factors shared by many perpetrators (Abbey & Jacques-Tiura, 2011; Kingree & Thompson, 2015; Malamuth et al., 1991; White & Smith, 2004; Zawacki et al., 2003; Zinzow & Thompson, 2015).

We also expected perpetrators with drinking victims to score higher on alcohol-related risk factors assessed in the initial survey and the laboratory dating simulation as compared to perpetrators with sober victims. In the bivariate survey data analyses, we unexpectedly found these differences for sexual dominance, and attitudes about casual sex; as well as the expected differences for stereotypes about drinking women, sex-related alcohol expectancies, misperception of sexual intent, and drinking in sexual situations. Effect sizes for these variables were small. In the multivariate survey data analyses, these differences remained for misperception of sexual intent and drinking in sexual situations, and effect sizes were small. In the laboratory session, as hypothesized, men who had previously sexually assaulted a drinking woman gave both themselves and their simulated date more alcohol to drink and perceived the woman as being more intoxicated and disinhibited. Effect sizes for these variables were medium.

These findings support the premise that the casual sex- drinking nexus may lead some men to assume that women who are drinking alcohol want to hook up, and subsequently misperceive the woman's sexual interest in them, especially when they have strong sex-related alcohol expectancies and stereotypes about drinking women. The findings from the dating simulation summarized in the previous paragraph provide some insight into these processes and demonstrate the power of expectancies. These men were sober, yet they reported that the woman showed signs of intoxication and sexual disinhibition, even though her behavior did not change when drinking. It is plausible that men who view casual relationships and casual sex positively seek out situations where casual hook ups are more likely, particularly drinking settings, such as parties and bars (Cowley, 2014). In turn, when men hold stereotypes about drinking women (e.g., "If a woman has a few drinks with a date, he should take this as a sign of her interest in having sex"), they may be more likely to misperceive the woman's degree of sexual interest and continue to push for sex after she refuses. Seventy-eight percent of the sexual assaults reported by women at one college started as consensual hookups but the man then forced sex despite her lack of consent (Flack et al., 2007). Therefore, it is not surprising that environments where casual sex and alcohol consumption co-occur often have high rates of unwanted sexual activity (Flack et al., 2007; Testa & Cleveland, 2017). The finding that sexual dominance is part of this nexus of variables demonstrates that the desire to have sexual power over someone contributes to the likelihood of sexual assault in these situations; these are not simply "hookups gone wrong."

Contrary to our hypothesis, the two groups of perpetrators did not differ from nonperpetrators in the number of sexual refusals received during the simulation. This was unexpected because in the Abbey et al. (online first) construct validity study we found a small, but significant correlation between number of refusals and past sexual assault perpetration. Given the relatively small sample size, we may have insufficient power in this study to find a small effect when we divide the perpetrators into two groups. Because the sexual assault measure that we used assesses sexual aggression since age 14, some of the men who had perpetrated in the past may no longer engage in sexual aggression (Abbey, Wegner, Pierce, & Jacques-Tiura, 2012; Hall, DeGarmo, Eap, Teten, & Sue, 2006). Thus, it is not surprising that the correlation between sexual aggression since age 14 and current sexual persistence would be moderate, and influenced by current attitudes, peer norms, and other life experiences.

Limitations

Based on theory and past research, we presume that the assessed risk factors contributed to these men's likelihood of committing sexual assault; however, cross-sectional surveys do not allow conclusions to be drawn about causality or temporal precedence. Longitudinal research should be conducted to examine how risk factors for perpetration develop over time. Another limitation of survey research is that self-reports may be influenced by social desirability biases and memory errors. Although participants reported high rates of past sexual aggression, it may be difficult to recall how much they drank on a given occasion or to know how much the victim drank. Most analyses were based simply on whether alcohol was consumed (not the quantity consumed). Future research would benefit from approaches like the dating simulation used in this study because it provided insight into participants' decisions about how much to drink, and how much to encourage the woman to drink, in an ecologically-relevant scenario.

Future Research Directions

Although 44% of the perpetrators in this study reported that the woman was drinking alcohol, not all the drinking women were impaired. Recognizing that perpetrators' reports might be inaccurate and that impairment cannot be assessed simply by the number of drinks consumed, about one-third of the victims consumed five or more drinks. One important direction for future research is to conduct studies with extremely large samples so that perpetrators who sexually assault women who consumed just one or two drinks can be compared to perpetrators who sexually assault women who consumed many drinks and were visibly impaired. Previous research suggests that women who consume just a few alcoholic drinks are perceived more sexually; thus, alcohol-sex expectancies and stereotypes about drinking women are likely to be activated with even small amounts of alcohol (George et al., 1995). However, comparing the risk profiles of men who sexually assault women drinking a little versus a lot of alcohol would allow hypotheses about perpetrators who target impaired women to be evaluated.

Relatedly, almost all the perpetrators who reported that the woman had consumed alcohol also reported that they had consumed alcohol. Consequently, it was not possible to determine if risk factors for perpetration would differ if we focused on perpetrators' alcohol consumption rather than victims' alcohol consumption. Given the strong relationship between perpetrators' and victims' alcohol consumption (Abbey, 2004; 2011; Testa, 2002), it would be extremely difficult to collect a large enough sample of perpetrators who sexually assaulted a drinking woman when they were sober to allow for analyses comparing them to perpetrators who sexually assaulted a drinking woman when they were also drinking alcohol. Virtual reality party or bar simulations could identify men who have a propensity to target impaired women, as well as the types of situations which bring out this propensity. In addition to assessing personality, attitudes, and past experiences associated with this behavior, these types of studies could also provide information about the strategies that perpetrators use during incidents. Participants in our dating simulation were encouraged to talk aloud, and several made comments which suggested that they were giving the woman drinks to loosen her up and make her more willing to engage in sexual activities she had just refused. However, we did not systematically assess participants' motives for giving the

woman alcohol; thus, future studies should extend these findings by using a similar paradigm to investigate men's reasons for encouraging female companions to consume alcohol.

Implications

These findings can inform the development of prevention and treatment programs. It is unlikely that most people recognize how powerfully alcohol expectancies influence their perceptions of others and bias their observations and interpretations of other's motives. Misperception of other's sexual interest does not excuse sexual assault. Universal prevention programs are needed to counteract societal messages that link alcohol and consensual sex and that subtly encourage negative stereotypes about drinking women.

FUNDING

This research was funded by a grant from the National Institute on Alcohol Abuse and Alcoholism to the second author (R21AA020876).

BIOGRAPHICAL STATEMENTS

Sheri E. Pegram received her Ph.D. in social psychology from Wayne State University. Her research interests include understanding the social, cognitive, and emotional mechanisms through which trauma, particularly sexual victimization, leads to health problems. She is also interested in understanding etiological factors that contribute to men's violence against women.

Antonia Abbey is a Professor of Psychology at Wayne State University. She received her Ph.D. in social psychology from Northwestern University. She has a longstanding interest in women's health and preventing violence against women. Her research interests include understanding the etiology of men's sexual aggression, alcohol's role in sexual assault; and sexual assault measurement issues. This research has primarily been funded by the National Institute on Alcohol Abuse and Alcoholism. She has published more than 100 journal articles and book chapters and has served on a variety of national advisory committees.

Breanne R. Helmers is a doctoral student at Wayne State University and received her Master of Science degree from Western Illinois University. Her research focuses on understanding the link between alcohol consumption and sexual decision making.

Massil Benbouriche is a Postdoctoral Research Fellow in Psychology and Biobehavioral Health, at Wayne State University. He received a Ph.D. in Experimental Social Psychology from the European University of Brittany - Rennes 2 as well as a Ph.D. in Criminology from the University of Montreal. Dr. Benbouriche's doctoral research examined the effects of alcohol and sexual arousal on men's sexual coercion. His postdoctoral research focuses on the role of executive functioning and self-regulation processes in sexual violence. He is also developing a broader research program about self-regulation in maladaptive behaviors.

Zunaira Jilani is a health and social psychology doctoral student at Wayne State University. She received her bachelors and masters of arts degree in psychology from the University of

Michigan. Her main areas of interest include investigating predictive factors of sexual assault perpetration, understanding the role of culture in sexual violence, and examining social/psychological mechanisms linking victimization to health outcomes.

Jacqueline Woerner is an NIH Postdoctoral Fellow at Yale University School of Medicine. She received her Ph.D. in Social Psychology at Wayne State University. Her research focuses on understanding the etiology of violence perpetration, and the social processes that facilitate risk-taking behavior.

REFERENCES

- Abbey A (2002). Alcohol-related sexual assault: A common problem among college students. *Journal of Studies on Alcohol, Supplement*, 14, 118–128. Doi: 10.15288/jsas.2002.s14.118.
- Abbey A (2011). Alcohol's role in sexual violence perpetration: Theoretical explanations, existing evidence and future directions. *Drug and Alcohol Review*, 30(5), 481–489. Doi: 10.1111/j.1465-3362.2011.00296.x. [PubMed: 21896070]
- Abbey A (2017). Alcohol-related sexual assault on college campuses: A continuing problem In Kaukinen C, Miller MH, & Powers RA (Eds.), *Addressing violence against women on college campuses* (pp. 78–94). Philadelphia, PA: Temple University Press.
- Abbey A, Clinton-Sherrod AM, McAuslan P, Zawacki T, & Buck PO (2003). The relationship between the quantity of alcohol consumed and the severity of sexual assaults committed by college men. *Journal of Interpersonal Violence*, 18, 813–833. Doi: 10.1177/0886260503253301. [PubMed: 14675511]
- Abbey A, & Harnish RJ (1995). Perception of sexual intent: The role of gender, alcohol consumption, and rape supportive attitudes. *Sex Roles*, 32(5), 297–313. Doi: 10.1007/BF01544599.
- Abbey A, & Jacques-Tiura AJ (2011). Sexual assault perpetrators' tactics: Associations with their personal characteristics and aspects of the incident. *Journal of Interpersonal Violence*, 26, 2866–2889. Doi: 10.1177/0886260510390955. [PubMed: 21156685]
- Abbey A, Jacques-Tiura AJ, & LeBreton JM (2011). Risk factors for sexual aggression in young men: An expansion of the confluence model. *Aggressive Behavior*, 37(5), 450–464. Doi: 10.1002/ab.20399. [PubMed: 21678429]
- Abbey A, McAuslan P, & Ross LT (1998). Sexual assault perpetration by college men: The role of alcohol, misperception of sexual intent, and sexual beliefs and experiences. *Journal of Social and Clinical Psychology*, 17(2), 167–195. Doi: 10.1521/jscp.1998.17.2.167.
- 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(3), 174–182. Doi: 10.1037/0893-164X.13.3.174.
- Abbey A, McAuslan P, Zawacki T, Clinton AM, & Buck PO (2001). Attitudinal, experiential, and situational predictors of sexual assault perpetration. *Journal of Interpersonal Violence*, 16(8), 784–807. Doi: 10.1177/088626001016008004. [PubMed: 26435575]
- Abbey A, Parkhill MR, BeShears R, Clinton-Sherrod AM, & Zawacki T (2006). Cross-sectional predictors of sexual assault perpetration in a community sample of single African American and Caucasian men. *Aggressive Behavior*, 32(1), 54–67. Doi: 10.1002/ab.20107. [PubMed: 26435555]
- Abbey A, Pegram SE, Woerner J, & Wegner R (2018). Men's responses to women's sexual refusals: Development and construct validity of a virtual dating simulation of sexual aggression. *Psychology of Violence*, 8(1), 87–99. Doi:10.1037/vio000078. [PubMed: 29375925]
- Abbey A, Wegner R, Pierce J, & Jacques-Tiura AJ (2012). Patterns of sexual aggression in a community sample of young men: Risk factors associated with persistence, desistance, and initiation over a 1-year interval. *Psychology of Violence*, 2(1), 1–15. 10.1037/a0026346. [PubMed: 22272382]
- Abbey A, Wegner R, Woerner J, Pegram SE, & Pierce J (2014). Review of survey and experimental research that examines the relationship between alcohol consumption and men's sexual aggression perpetration. *Trauma, Violence, & Abuse*, 15(4), 265–282. Doi: 10.1177/1524838014521031.

- Claxton SE, DeLuca HK, & van Dulmen MHM (2015). The association between alcohol use and engagement in casual sexual relationships and experiences: A meta-analytic review on non-experimental studies. *Archives of Sexual Behavior*, 44, 837–856. Doi: 10.1007/s1050. [PubMed: 25586945]
- Cleveland HH, Koss MP, & Lyons J (1999). Rape tactics from the survivors' perspective: Contextual dependence and within-event independence. *Journal of Interpersonal Violence*, 14(5), 532–547. Doi: 10.1177/088626099014005005.
- Cohen J (1988). *Statistical power analyses for the social sciences*. Hillsdale, NJ: Erlbaum.
- Cooper ML (2002). Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol*, (14), 101–117. Doi: 10.15288/jsas.2002.s14.101. [PubMed: 12022716]
- Cooper ML (2006). Does drinking promote risky sexual behavior? A complex answer to a simple question. *Current Directions in Psychological Science*, 15(1), 19–23. Doi: 10.1111/j.0963-7214.2006.00385.x.
- Cowley AD (2014). “Let’s get drunk and have sex”: The complex relationship of alcohol, gender, and sexual victimization. *Journal of Interpersonal Violence*, 29, 1258–1278. Doi: 10.1177/0886260513506289. [PubMed: 24255066]
- Davis KC, Schraufnagel TJ, George WH, & Norris J (2008). The use of alcohol and condoms during sexual assault. *American Journal of Men’s Health*, 2(3), 281–290. Doi: 10.1177/1557988308320008.
- DeGue S, & DiLillo D (2004). Understanding perpetrators of nonphysical sexual coercion: Characteristics of those who cross the line. *Violence and Victims*, 19(6), 673–688. Doi: 10.1891/vivi.19.6.673.66345. [PubMed: 16004069]
- Dermen KH, & Cooper MLC (1994). Sex-related alcohol expectancies among adolescents. *Psychology of Addictive Behaviors*, 8, 152–160. Doi: 10.1037/0893-164X.8.3.152.
- Desiderato LL, & Crawford HJ (1995). Risky sexual behavior in college students: Relationships between number of sexual partners, disclosure of previous risky behavior, and alcohol use. *Journal of Youth and Adolescence*, 24(1), 55–68. Doi: 10.1007/BF01537560.
- Flack WF Jr, Daubman KA, Caron ML, Asadorian JA, D’Aureli NR, Gigliotti SN, ... & Stine ER (2007). Risk factors and consequences of unwanted sex among university students: Hooking up, alcohol, and stress response. *Journal of Interpersonal Violence*, 22(2), 139–157. Doi: 10.1177/0886260506295354. [PubMed: 17202573]
- George WH, Cue KL, Lopez PA, Crowe LC, & Norris J (1995). Self-reported alcohol expectancies and postdrinking sexual inferences about women. *Journal of Applied Social Psychology*, 25(2), 164–186. Doi: 10.1111/j.1559-1816.1995.tb01589.x.
- Hall GCN, DeGarmo DS, Eap S, Teten AL, & Sue S (2006). Initiation, desistance, and persistence of men’s sexual coercion. *Journal of Consulting and Clinical Psychology*, 74(4), 732–742. Doi: 10.1037/0022-006X.74.4.732. [PubMed: 16881781]
- Hendrick C, Hendrick SS, & Reich DA (2006). The Brief Sexual Attitudes Scale. *Journal of Sex Research*, 43(1), 76–86. 10.1080/00224490609552301. [PubMed: 16817070]
- Jacques-Tiura AJ, Abbey A, Parkhill MR, & Zawacki T (2007). Why do some men misperceive women’s sexual intentions more frequently than others do? An application of the confluence model. *Personality and Social Psychology Bulletin*, 33(11), 1467–1480. Doi: 10.1177/0146167207306281. [PubMed: 17933743]
- Kanin E (1967). An examination of sexual aggression as a response to sexual frustration. *Journal of Marriage and Family*, 24, 428–433. Doi: 10.2307/349577.
- Kanin EJ (1985). Date rapists: Differential sexual socialization and relative deprivation. *Archives of Sexual Behavior*, 14(3), 219–231. Doi: 10.1007/BF01542105. [PubMed: 4004546]
- Kingree JB, & Thompson M (2015). A comparison of risk factors for alcohol-involved and alcohol-uninvolved sexual aggression perpetration. *Journal of Interpersonal Violence*, 30(9), 1478–1492. Doi: 10.1177/0886260514540806. [PubMed: 24997103]
- Koss MP, Abbey A, Campbell R, Cook S, Norris J, Testa M, ... & White J (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, 31(4), 357–370. Doi: 10.1111/j.1471-6402.2007.00385.x.

- Koss MP, Gidycz CA, & Wisniewski N (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, 55(2), 162. Doi: 10.1037/0022-006X.55.2.162. [PubMed: 3494755]
- Kosson DS, Kelly JC, & White JW (1997). Psychopathy-related traits predict self-reported sexual aggression among college men. *Journal of Interpersonal Violence*, 12(2), 241–254. Doi: 10.1177/088626097012002006.
- LaBrie JW, Grant S, & Hummer JF (2011). “This would be better drunk”: Alcohol expectancies become more positive while drinking in the college social environment. *Addictive Behaviors*, 36, 890–893. Doi: 10.1016/j.addbeh.2011.03.015. [PubMed: 21497024]
- Loh C, Gidycz CA, Lobo TR, & Luthra R (2005). A prospective analysis of sexual assault perpetration risk factors related to perpetrator characteristics. *Journal of Interpersonal Violence*, 20(10), 1325–1348. Doi: 10.1177/0886260505278528. [PubMed: 16162492]
- Lyndon AE, White JW, & Kadlec KM (2007). Manipulation and force as sexual coercion tactics: Conceptual and empirical differences. *Aggressive Behavior*, 33, 291–303. Doi: 10.1002/ab.20200. [PubMed: 17593561]
- MacNair-Semands RR, & Simono RB (1996). College student risk behaviors: Implications for the HIV-AIDS pandemic. *Journal of College Student Development*, 47(5), 574–587.
- Malamuth NM, Sockloskie RJ, Koss MP, & Tanaka JS (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology*, 59(5), 670–681. Doi: 10.1037/0022-006X.59.5.670. [PubMed: 1955602]
- Munoz LC, Khan R, & Cordwell L (2011). Sexually coercive tactics used by university students: A clear role for primary psychopathy. *Journal of Personality Disorders*, 25(1), 28–40. Doi: 10.1521/pedi.2011.25.1.28. [PubMed: 21309621]
- Nelson PA (1979). Personality, sexual functions, and sexual behavior: An experiment in methodology (Unpublished doctoral dissertation, University of Florida.) *Dissertation Abstracts International*, 39, 6134.
- Norris J, & Cubbins LA (1992). Dating, drinking, and rape: Effects of victim’s and assailant’s alcohol consumption on judgments of their behavior and traits. *Psychology of Women Quarterly*, 16(2), 179–191. Doi: 10.1111/j.1471-6402.1992.tb00248.x.
- Patrick ME, & Maggs JL (2009). Does drinking lead to sex? Daily alcohol–sex behaviors and expectancies among college students. *Psychology of Addictive Behaviors*, 23(3), 472–481. Doi: 10.1037/a0016097. [PubMed: 19769431]
- Snyder M, & Stukas AA Jr (1999). Interpersonal processes: The interplay of cognitive, motivational, and behavioral activities in social interaction. *Annual Review of Psychology*, 50(1), 273–303. Doi: 10.1146/annurev.psych.50.1.273.
- Tabachnick BG, & Fidell LS (2007). *Using multivariate statistics* (5th ed.). Boston: Allyn & Bacon.
- Testa M (2002). The impact of men’s alcohol consumption on perpetration of sexual aggression. *Clinical Psychology Review*, 22(8), 1239–1263. Doi: 10.1016/S0272-7358(02)00204-0. [PubMed: 12436812]
- Testa M, & Cleveland MJ (2017). Does alcohol contribute to college men’s sexual assault perpetration? Between- and within- person effects over five semesters. *Journal of Studies on Alcohol and Drugs*, 78(1), 5–13. Doi: 10.15288/jsad.2017.78.5. [PubMed: 27936357]
- Tharp AT, DeGue S, Valle LA, Brookmeyer KA, Masserti GM, & Matjasko JL (2012). A systematic qualitative review of risk and protective factors for sexual violence perpetration. *Trauma, Violence, & Abuse*, 14, 133–167. Doi: 10.1177/1524838012470031.
- Tuliao AP & McChargue D (2014). Problematic alcohol use and sexual assault among male college students: The moderating and mediating roles of alcohol outcome expectancies. *The American Journal on Addictions*, 23, 321–328. [PubMed: 24629104]
- Tyler KA, Hoyt DR, & Whitbeck LB (1998). Coercive sexual strategies. *Violence and Victims*, 13, 47–61. [PubMed: 9650245]
- Ullman SE, Karabatsos G, & Koss MP (1999). Alcohol and sexual aggression in a national sample of college men. *Psychology of Women Quarterly*, 23(4), 673–689. Doi: 10.1111/j.1471-6402.1999.tb00391.x.

- Warkentin JB, & Gidycz CA (2007). The use and acceptance of sexually aggressive tactics in college men. *Journal of Interpersonal Violence*, 22(7), 829–850. Doi: 10.1177/0886260507301793. [PubMed: 17575065]
- Wheeler JG, George WH, & Dahl BJ (2002). Sexually aggressive college males: Empathy as a moderator in the “Confluence Model” of sexual aggression. *Personality and Individual Differences*, 33, 759–775. Doi: 10.1016/S0191-8869(01)00190-8.
- White JW, & Smith PH (2004). Sexual assault perpetration and re-perpetration: From adolescence to young adulthood. *Criminal Justice and Behavior*, 31(2), 182–202. Doi: 10.1177/0093854803261342.
- Williams KM, Paulhus DL, & Hare RD (2007). Capturing the four-factor structure of psychopathy in college students via self-report. *Journal of Personality Assessment*, 88, 205–219. Doi: 10.1080/00223890701268074. [PubMed: 17437385]
- Wilson AE, Calhoun KS, & McNair LD (2002). Alcohol consumption and expectancies among sexually coercive college men. *Journal of Interpersonal Violence*, 17, 1145–1159. Doi: 10.1177/088626002237399.
- Zawacki T, Abbey A, Buck PO, McAuslan P, & Clinton-Sherrod AM (2003). Perpetrators of alcohol-involved sexual assaults: How do they differ from other sexual assault perpetrators and nonperpetrators? *Aggressive Behavior*, 29(4), 366–380. Doi: 10.1002/ab.10076. [PubMed: 26430287]
- Zinzow HM, & Thompson M (2015). Factors associated with use of verbally coercive, incapacitated, and forcible sexual assault tactics in a longitudinal study of college men. *Aggressive Behavior*, 41, 34–43. Doi: 10.1002/ab.21567. [PubMed: 27539872]

Table 1.

Means and Standard Deviations for Survey Study Variables (N = 548)

Study variables	Perpetrator Groups		
	NPs (n = 360) M (SD)	PSVs (n = 101) M (SD)	PDVs (n = 87) M (SD)
Personality			
Psychopathy-related traits	2.10 (0.44)	2.26 (0.46)	2.34 (0.49)
Gender-related beliefs			
Sexual dominance	2.09 (0.67)	2.27 (0.57)	2.58 (0.66)
Sex-related beliefs and behavior			
Positive attitudes about casual sex	3.19 (0.92)	3.38 (0.87)	3.63 (0.81)
No. of one-night stands	1.14 (1.27)	1.55 (1.29)	1.80 (1.57)
Misperception of sexual intent	5.11 (4.98)	7.68 (5.83)	10.72 (6.34)
Alcohol-related beliefs and behavior			
Stereotypes about drinking women	1.67 (1.06)	2.07 (1.26)	2.69 (1.73)
Sex-related alcohol expectancies	3.10 (1.07)	3.24 (1.04)	3.54 (0.97)
Drinking in sexual situations	1.29 (1.35)	1.50 (1.52)	2.09 (1.67)

Note. NPs = nonperpetrators. PSV = perpetrators with sober victims. PDV = perpetrators with drinking victims.

Table 2.

Bivariate and Multivariate Associations Between Hypothesized Predictors and Perpetrator Groups for Survey Study (N = 548)

Hypothesized Predictors	Bivariate Analyses		Multivariate Analyses	
	OR	95% CI	AOR	95% CI
Personality				
Psychopathy-related traits				
NPs vs. PSV	2.20	[1.35, 3.57]	1.82	[1.06, 3.13]
NPs vs. PDV	3.15	[1.89, 5.26]	2.03	[1.08, 3.83]
PSVs vs. PDV	1.43	[0.79, 2.62]	1.11	[0.55, 2.24]
Gender-related beliefs				
Sexual dominance				
NPs vs. PSV	1.53	[1.09, 2.15]	1.15	[0.76, 1.74]
NPs vs. PDV	3.09	[2.11, 4.52]	1.90	[1.16, 3.11]
PSVs vs. PDV	2.02	[1.30, 3.15]	1.65	[0.94, 2.89]
Sex-related beliefs and behavior				
Positive attitudes about casual sex				
NPs vs. PSV	1.26	[0.98, 1.62]	0.93	[0.69, 1.26]
NPs vs. PDV	1.80	[1.35, 2.41]	0.92	[0.63, 1.33]
PSVs vs. PDV	1.43	[1.02, 2.02]	0.99	[0.65, 1.50]
No. of one-night stands				
NPs vs. PSV	1.27	[1.08, 1.49]	1.21	[1.00, 1.46]
NPs vs. PDV	1.40	[1.19, 1.65]	1.12	[0.90, 1.38]
PSVs vs. PDV	1.11	[0.92, 1.33]	0.92	[0.74, 1.15]
Misperception of sexual intent				
NPs vs. PSV	1.66	[1.31, 2.10]	1.08	[1.04, 1.13]
NPs vs. PDV	3.10	[2.29, 4.18]	1.15	[1.09, 1.20]
PSVs vs. PDV	1.87	[1.33, 2.61]	1.06	[1.00, 1.11]
Alcohol-related beliefs and behavior				
Drinking women stereotypes				
NPs vs. PSV	1.32	[1.11, 1.58]	1.19	[0.98, 1.45]
NPs vs. PDV	1.73	[1.46, 2.05]	1.41	[1.15, 1.74]
PSVs vs. PDV	1.31	[1.08, 1.59]	1.19	[0.95, 1.49]
Sex-related alcohol expectancies				
NPs vs. PSV	1.13	[0.92, 1.40]	0.88	[0.69, 1.13]
NPs vs. PDV	1.51	[1.19, 1.92]	0.85	[0.63, 1.15]
PSVs vs. PDV	1.34	[1.01, 1.78]	0.97	[0.69, 1.36]
Drinking in sexual situations				
NPs vs. PSV	1.11	[0.95, 1.29]	1.05	[0.88, 1.27]
NPs vs. PDV	1.42	[1.22, 1.65]	1.40	[1.15, 1.70]
PSVs vs. PDV	1.28	[1.06, 1.54]	1.32	[1.06, 1.65]

Note. NPs = nonperpetrators. PSV = perpetrators with sober victims. PDV = perpetrators with drinking victims. OR = odds ratio. AOR = adjusted odds ratio. CIs that are bolded are statistically significant at $p < .05$.

Table 3.

Examples of Men's Comments About the Effects of Alcohol on the Female Agent's Behavior in Laboratory Study (N = 87)

		Illustrative Quotes
Alcohol had a disinhibiting effect	1	"I think that she wanted to go further than just a kiss. It's much easier to get with a girl when she's had a few drinks, especially if she isn't really feeling you at first."
	2	"It made her open to my advances more."
	3	"She was nicer than she was before and it loosened her up. I think the amount of alcohol she drank had a lot to do with the fact that she let me touch her boobs."
	4	"It made her more talkative and lowered her inhibitions when it came to physical activity."
	5	"During the second date, she seemed a bit more intoxicated because she let me go a bit further with her sexually and I think alcohol is the reason for that."
	6	"Made her loose and more willing to engage in something a step further."
	7	"She seemed more sexually aroused."
Alcohol had no effect	1	"I don't think she was affected by the alcohol. Even when I tried to get closer to her, she was assertive and said that we should do something else."
	2	"None, she was very aware of what was going on."
	3	"None as far as I could tell."
	4	"I couldn't even tell she had alcohol in her system and didn't really make her drink to begin with"
	5	"I don't believe the alcohol had any significant effect on her decisions throughout the dates."
	6	"I didn't notice any changes in her behavior."
	7	"I don't think alcohol had any effects on her behavior."

Table 4. Means Differences in Laboratory Study Variables for Nonperpetrators, Perpetrators with Sober Victims, and Perpetrators with Drinking Victims (N = 87)

Variables	Perpetrator Groups				$F(2, 84)$	η^2
	NPs (n = 42) M (SD)	PSVs (n = 26) M (SD)	PDVs (n = 19) M (SD)			
Behavior in Simulation						
No. of times he drank alcohol	4.93 (5.15)	3.31 (3.18) _a	7.58 (6.17) _b	4.17*	0.09	
No. of times he gave her alcohol	4.31 (4.66) _a	2.65 (2.51) _a	7.16 (5.63) _b	5.81**	0.12	
No. of sexual activities	19.55 (12.27)	18.04 (12.23)	26.21 (14.15)	2.53	0.06	
No. of sexual refusals received	3.24 (2.44)	3.65 (2.56)	4.58 (3.82)	1.47	0.03	
Perceptions of Woman						
Her level of intoxication	1.92 (1.02) _a	1.72 (0.87) _a	2.47 (1.07) _b	3.34*	0.07	
Disinhibiting effects of alcohol on her	0.78 (1.20) _a	0.63 (0.98) _a	1.75 (1.41) _b	5.76**	0.12	

Note. NPs = nonperpetrators. PSV = perpetrators with sober victims. PDV = perpetrators with drinking victims.

* $p < .05$.

** $p < .01$.

Means in the same row with different subscripts differ at $p < .05$.