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Alcohol's Role in Sexual Violence Perpetration: Theoretical Explanations, Existing Evidence, and Future Directions

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Abstract

Issues—There is controversy regarding the extent to which alcohol plays a causal role in sexual assault perpetration.

Approach—This paper critically reviews the relevant alcohol administration and survey research literature.

Key Findings—Alcohol administration researchers have randomly assigned male participants to drink conditions prior to exposure to an acquaintance rape scenario. As compared to sober participants, intoxicated participants find the male character's use of force to obtain sex more acceptable and express greater willingness to act in a similar manner. In several studies, these effects are strongest for intoxicated men with hostile attitudes toward women. Survey researchers have asked male participants to describe incidents in which they behaved in a sexually aggressive manner. Men who commit sexual assault when drinking report having traits, attitudes, and experiences similar to those of other perpetrators except in the alcohol domain. Perpetrators who commit sexual assault when drinking tend to drink more than other perpetrators in sexual situations and have stronger expectancies regarding alcohol's effects on sexual behavior.

Implications—Overall, research suggests that alcohol interacts with personality and aspects of the situation, adding to the risk of perpetration among men already predisposed to engaging in sexual aggression.

Conclusions—Although there are no simple answers to questions about alcohol's role in sexual assault, research suggests that intoxication may be a more important determinant of when some men commit sexual aggression, rather than who becomes sexually aggressive.

Keywords

alcohol; sexual violence; perpetration; etiology

Introduction

Sexual assault is frequently called a hidden crime because most incidents do not fit the stranger rape prototype and are never reported to the authorities [1,2]. Approximately half of all reported and unreported sexual assaults involve alcohol consumption by the perpetrator, victim, or both [see 3-5 for reviews of this literature]. Typically if the victim consumes alcohol, the perpetrator does as well, with estimates of perpetrators' intoxication during the incident ranging from 30% to 75%.

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Although intoxication is not a prerequisite for sexual violence, their frequent co-occurrence suggests that alcohol may play a causal role in some sexual assaults. Whenever two variables are consistently associated with each other, there are three possible explanations. First, alcohol consumption may be a cause of sexual aggression. Second, the desire to commit sexual aggression may be a cause of alcohol consumption. Although this causal direction initially sounds improbable, in many cultures intoxication provides an excuse for engaging in behaviors that are typically censured [6,7]. Thus, some perpetrators may decide to get drunk because it makes it easier to justify sexually aggressive behavior to themselves and others. The third explanation is that the relationship is spurious; due to a third variable that causes both drinking and sexual aggression. For example, personality traits such as impulsivity have been linked to heavy alcohol consumption and sexually aggressive behavior [8,9]. This suggests that for some individuals, impulsivity may be the cause of both their heavy drinking and their sexual aggression. These distinctions regarding causality potentially have important implications for treatment and prevention programs. Interventions that focus on limiting alcohol consumption are most likely to reduce sexual aggression if alcohol plays a causal role. If perpetrators' alcohol consumption is due to underlying personality traits such as impulsivity or sensation seeking, then interventions focused on reducing their alcohol consumption will not address the underlying cause of their violent behavior and are likely to be ineffective in reducing sexual aggression. Although, if alcohol typically provides a post hoc excuse for violence and that excuse is no longer available, some perpetrators may be forced to face the implications of their behavior. Perpetrators maintain legal and moral responsibility for their behavior, regardless of what role alcohol played.

This paper critically reviews the literature that examines alcohol's role in sexual violence perpetration, building on review papers previously written by this author and her colleagues [3,10-13]. Most researchers emphasize that sexual assault perpetrators are a heterogeneous group with varied motives and risk factors that tend to accumulate synergistically [9,14]. Alcohol often exacerbates dynamics that can arise without alcohol. Thus, the answer to the question above regarding causality is likely to vary for different perpetrators and for different sexual assault incidents.

The terms sexual assault, sexual aggression, and sexual violence are used interchangeably in this paper to describe the types of forced sex reported in the literature, regardless of whether they conform to criminal statutes in various jurisdictions [15]. Child abuse has a different etiology; thus, this paper focuses on sexual violence that occurs in adolescence and adulthood. Although men can be victims and women can be perpetrators, the vast majority of sexual assaults involve male perpetrators and female victims who know each other, in relationships that vary from casual acquaintances to marital partners [16,17].

Pharmacological and Psychological Mechanisms

The primary mechanisms through which alcohol consumption increases the likelihood of sexual violence perpetration are pharmacological and psychological [3-7]. Both of these mechanisms are briefly reviewed below.

Pharmacological Effects of Alcohol Consumption

Acute alcohol consumption impairs a large number of cognitive functions including episodic and working memory, abstract reasoning, set shifting, planning, and judgment [18-20]. It also impedes response inhibition, particularly when the task requires suppression of a compelling predominant response [21,22]. When intoxicated, people focus on immediate, salient, superficial cues rather than distal, covert, embedded cues. The cues that usually inhibit sexually aggressive behavior such as a sense of morality, empathy for the victim, and

concern for future consequences are likely to be less salient than feelings of anger, frustration, sexual arousal, and entitlement, especially among men who are predisposed to sexual aggression [11]. Sayette [23] argued that alcohol short circuits the stress appraisal process, thereby reducing anxiety in stressful situations. If potential perpetrators do not feel anxious about the consequences of forcing sex on an unwilling woman, then they are more likely to act on their urges.

Laboratory studies have demonstrated that minor cognitive impairment occurs with blood alcohol concentrations (BAC) as low as .04; moderate impairment typically occurs in the range of .06 to .10 [24]. There are many parameters that influence BAC, including weight, body fat, how quickly drinks are consumed, the amount and type of food consumed, and individual differences in tolerance [25].

Psychological Effects of Alcohol Consumption

Many cultures glamorize alcohol consumption and link it to disinhibition, sexual desire, sexual performance, risk taking, and aggression [7]. Like Mardi Gras or New Year's Eve, alcohol provides a time out from normal rules, thereby providing an excuse for disinhibited behavior. Furthermore, beliefs about alcohol's effects interact with alcohol's pharmacological effects, such that intoxicated individuals interpret ambiguous behavior as fitting their expectancies [6]. Thus, an intoxicated man in search of a sexual partner is likely to assume that anyone willing to dance is also willing to have sex; whereas, an intoxicated man looking for a fight is likely to assume that an accidental bump is an intentional act of aggression.

In addition to considering perpetrators' beliefs about alcohol's effects on their own behavior, it is also essential to consider their beliefs about alcohol's effects on women's behavior. Many men believe that alcohol makes women more responsive to sexual invitations [26,27]. This belief can bias men's interpretation of a drinking woman's actions, making them more likely to assume that any friendly behavior is a sign that she is interested in having sex with them [11]. Also, women's drunkenness and sexual behavior are censured more than men's [28]. Thus, many sexual assault perpetrators are quick to derogate drinking women and label them as sexually promiscuous [29,30]. Furthermore, some perpetrators recognize that intoxicated women's cognitive and motor impairments make them convenient targets for sexual aggression [31,32]. These perpetrators often pursue intoxicated women at parties or bars and encourage female companions to drink heavily. Date rape drugs are rarely used because alcohol is much more readily available and socially acceptable [1].

Brief Review of Relevant Empirical Research

Only experimental research in which people are randomly assigned to drink an alcoholic or a nonalcoholic beverage allows causal conclusions to be made about alcohol's effects on behavior. When findings are based on occasions when people chose to drink, it is impossible to determine if their behavior was truly due to alcohol's effects or if they chose to drink on that occasion because they were looking for an excuse to break social norms and alcohol provided it. The inclusion of a placebo condition allows researchers to determine if alcohol's effects are due to the belief that one consumed alcohol, the pharmacological effects of alcohol, or a combination of the two. As noted above, in naturally occurring drinking situations, psychological and pharmacological mechanisms work together; beliefs about alcohol's effects create a cognitive expectation that channel alcohol's pharmacological effects [6]. However, research that examines the separate influences of psychological and pharmacological mechanisms has important prevention and treatment implications. Effects that can be attributed to beliefs about alcohol are potentially more malleable than those attributed to its pharmacology. If alcohol's effects on sexual assault perpetrators are

primarily attributable to their beliefs about alcohol's effects on women and on themselves, then behavior change may be possible solely through challenging and altering these beliefs. If alcohol's effects on sexual assault perpetrators are primarily attributable to cognitive and affective impairments induced by alcohol, then behavior change requires reductions in alcohol consumption.

Despite the many advantages to alcohol administration studies, their limited external validity raises concerns about the generalizability of their findings. Although participants can react to depictions of sexual assault in the lab, their own sexually assaultive behavior cannot be assessed. In contrast, survey research cannot establish causality; however, it allows perpetrators to describe the characteristics of sexual assaults committed when intoxicated or sober. Experimental and survey research have complementary strengths and weaknesses; thus, confidence in conclusions about alcohol's role in sexual assault are strengthened when both lines of research produce similar findings. Studies using both of these methodologies are described below.

Findings from Alcohol Administration Research

First, studies are reviewed that examine alcohol's effects on general aggression. Then, studies that focus on sexual aggression are reviewed. After brief summaries of findings from studies that include placebo conditions and manipulate female targets' alcohol consumption, this section ends with the description of a theoretical model that integrates these literatures and their findings.

General aggressive behavior—Most experimental studies that have examined alcohol's effects on aggressive behavior have used the Taylor Aggression Paradigm [33] in which participants believe they are delivering shock to an opponent as part of a competitive reaction time study [for reviews see 34,35]. There is no actual opponent and aggression is operationalized as shock intensity and duration. Although some of these studies have included women, most assess men's aggression toward male targets. As compared to sober participants, participants at BAC levels of approximately .10 are significantly more aggressive toward their opponent, particularly when they feel provoked. Provocation is operationalized as receipt of a strong shock from the fictitious opponent. Sober participants also respond to provocation by delivering more intense shocks to their opponent; however, if the opponent then delivers a milder shock, they too reduce their level of aggression. In contrast, shock levels administered by intoxicated participants remain high, even after provocation ends.

Furthermore, individual difference factors interact with intoxication to heighten aggression. For example, Parrott and Ginicola [36] found an interaction between drink condition, trait anger, and anger control in a sample of 164 young adult men using the paradigm described above. The highest shock intensities were delivered by intoxicated participants who had high levels of trait anger and low levels of anger control. Other studies have found that men who score high on trait measures of irritability, antisocial personality characteristics, and lack of empathy are particularly aggressive when intoxicated [36]. Despite the artificial conditions associated with laboratory aggression, these studies demonstrate that alcohol plays a causal role in aggressive behavior under some circumstances, particularly among men predisposed to act aggressively.

Sexually aggressive behavior—Only a few researchers have used experimental paradigms to examine the effects of alcohol on sexual aggression [37-42]. In these studies, men are typically presented with a scenario in which a male character uses verbal and physical force to obtain sex from a date. Participants are then asked to evaluate the situation

and how they would respond if they were in it. As compared to sober participants, intoxicated participants evaluate the man's behavior as more appropriate and less violent, are more likely to believe the woman enjoyed being forced to have sex, and report greater willingness to use similar strategies if they were in that situation [37-42]. For example Gross and colleagues [38] asked 160 male college students to listen to an audiotape of a date rape situation in which the woman agrees to kissing and touching but protests when the man attempts to remove her clothes. The female character's refusals become more and more vehement as the tape progresses and the male character uses escalating levels of verbal and physical force. Participants were asked to stop the tape at the point the male character's behavior was inappropriate and he should leave the woman alone (they were also told that they would be allowed to listen to the entire tape afterwards to rule out curiosity as a motive for letting the tape continue). Participants who consumed alcohol allowed the man to continue for a longer period of time and rated the woman's sexual arousal higher than did sober participants. These findings suggest that intoxicated men may have projected their own sexual arousal onto the woman, missing or ignoring her active protest.

Very few studies have evaluated the interaction of alcohol with other risk factors for sexual assault perpetration [41,43,44]. For example, Noel and colleagues asked 334 young men to view a videotape of a date rape situation in which the woman strongly verbally and physically protested the man's attempts to hold her down and have sex with her. They found that among participants with a high need for sexual dominance, intoxicated men were significantly more likely than sober men to agree that the male actor should continue to use force and that they would do the same in that situation. These findings complement those described above regarding general aggression, and suggest that alcohol's effects are strongest for men already at risk of committing sexual assault.

Findings from placebo conditions—Alcohol administration studies focused on sexual aggression that have included a placebo cell have produced mixed results, with some studies finding that placebo participants responded comparably to intoxicated participants [38,40]; whereas other studies found that placebo participants responded comparably to sober control participants [39,42]. These studies vary considerably in the scenarios used to describe sexual aggression and the phrasing of the outcome measures; thus more research is needed before any conclusions can be drawn about placebo effects.

Findings from experiments that do not manipulate alcohol consumption—Another line of research demonstrates the power of beliefs about alcohol. Sober college students read a vignette about a couple on a date, usually at a restaurant [27,49]. The woman either consumes a few alcoholic drinks with her meal or nonalcoholic drinks; nothing else in the story varies. Drinking women are perceived by sober participants as behaving more sexually and being more interested in having sex with their date [27,49]. These studies demonstrate that people's perceptions of a woman's sexual availability are altered when she consumes even a modest amount of alcohol.

Theoretical integration of experimental research findings—Based on past research, Abbey [10,11] developed a theory which describes two routes through which alcohol can increase the likelihood of acquaintance sexual assault. Early in an interaction, men look for cues that they believe indicate a woman's degree of sexual interest. Sober men frequently misperceive women's friendliness (e.g., laughing at their jokes, listening to their stories, dancing with them at a party) as a sign of sexual interest [45]. Intoxication exacerbates this effect because it produces cognitive deficits that cause individuals to focus on the most salient cues in the situation. For a man who is looking for a sexual partner and who believes that alcohol increases his sex drive and women's interest in sex, then the most salient cues are likely to be those that support his hypothesis that his companion is interested

in having sex with him. Disconfirming cues (e.g., she keeps backing away when he moves close, she keeps making excuses not to leave the party with him) are likely to be ignored or minimized. Even without alcohol, expectancies tend to be self-fulfilling and people process ambiguous information in such a way that it confirms their initial hypothesis [46]. Alcohol exacerbates this effect because it makes it much harder to recognize disconfirming information.

The second point at which alcohol contributes to the likelihood of sexual assault is when the man's sexual advances are rejected. Perpetrators often feel “led on” and justified in using force to “get what they deserve from a sexual tease” [30,47]. Misperception of another person's sexual intentions does not excuse the use of verbal or physical aggression. However, many sexual assault perpetrators' narratives demonstrate that their distorted cognitions about women and sexual relationships provide them with what they believe is a legitimate excuse for their behavior [48].

Findings from Survey Research

Most surveys of sexual assault perpetration have used samples of male college students in the United States. Only a few researchers have used representative community samples. In these studies, perpetration is assessed with behaviorally-specific questions that do not use labels such as “rape” or “sexual assault.” Instead they ask questions such as, “How many times have you had sexual intercourse with a woman when she didn't want to because she was passed out or too intoxicated to give consent or stop what was happening?” [50]. Other questions use similarly precise language to ask about the use of verbal coercion and physical force.

There are surprisingly few studies that provide an in depth examination of the various pathways through which alcohol might contribute to sexual assault. Thus, in the following sections, studies are highlighted that address specific questions about alcohol's role associated with perpetrators' characteristics, assault characteristics, quantity consumed, and perpetrators' tactics.

Do Perpetrators Who Commit Alcohol-Involved Sexual Assaults Have Unique Attributes?—One approach to examining alcohol's role in sexual assault perpetration focuses on comparing perpetrators who commit sexually violent acts when intoxicated to those who commit sexually violent acts when sober. Etiological research has established a number of risk factors for sexual assault perpetration including childhood sexual, physical, and emotional victimization; adolescent delinquency, personality dimensions including narcissism, impulsivity, and lack of empathy for others; attitudes including sexual dominance, hostility toward women, and rape myth acceptance; positive attitudes about casual sexual relationships; and peers with supportive norms [3,9,14].

Zawacki and colleagues [51] conducted a cross-sectional survey with 356 male college students. These students were recruited for a study of health and well-being and were not aware of the study's focus on sexual violence in order to avoid selection bias. Based on their responses to a well-validated measure of sexual assault perpetration [52,53], they were divided into three mutually exclusive groups for data analysis: no history of sexual assault perpetration (42.4% of sample), perpetration with alcohol consumption by the perpetrator or victim (31.2% of sample), and perpetration without alcohol consumption by either the perpetrator or victim (26.4% of sample). Both the perpetrator and the victim consumed alcohol in the vast majority of the alcohol-involved assaults. Using discriminant function analysis and analysis of variance, these three groups of men were compared using common predictors of sexual assault perpetration. For most of the risk factors that were assessed, no differences were found between perpetrators who committed a sexual assault that involved

alcohol and perpetrators who committed a sexual assault that did not involve alcohol. Both groups of men scored higher than nonperpetrators on measures of aggression, delinquency, hostility toward women, sexual dominance, and attitudes about casual sex. However, the two groups of perpetrators did differ on measures related to alcohol. Perpetrators who committed an alcohol-involved sexual assault had the strongest beliefs about alcohol's effects on their sex drive and on women's interest in having sex. They also consumed the most alcohol, both overall consumption and alcohol consumption in sexual situations. Although replication of these findings would increase confidence in the results, this study suggests that there are few differences between men who commit sexual assault when sober or when drinking. Alcohol primarily appears to influence the circumstances under which some men are most likely to commit sexual assault.

Most men who acknowledge committing sexual assault, report committing more than one [29,32,51]. Other analyses of this dataset separately counted sexually aggressive acts that participants committed when sober and sexually aggressive acts committed when drinking alcohol [54]. Among perpetrators, 48% had committed sexual assault only when sober, 27% had committed sexual assault only when drinking, and 25% had committed sexual assaults both when sober and when drinking. If half of the perpetrators who have committed sexual assault when drinking have also done so when sober, alcohol does not appear to be necessary for them to commit sexual assault. Studies are needed that use within-subject analyses to address the question: are there systematic differences between sexual assaults committed by the same perpetrator when intoxicated versus when sober?

Are Sexual Assaults Committed By Intoxicated Perpetrators More Violent?—

Based on the general literature linking aggression and violence, many researchers have hypothesized that intoxicated perpetrators are more violent than sober perpetrators. Perpetrators' violence has been operationalized in a number of ways including use of physical aggression during the assault, injuries sustained by the victim, and whether a completed rape occurred [55-59]. Although the majority of these studies support the hypothesis that perpetrators' alcohol consumption is associated with more severe outcomes, the evidence is mixed. Most of these studies only assess whether alcohol was consumed, not how much was consumed [56-59]. The cognitive and motor deficits associated with consuming one or two drinks are very different from those associated with consuming seven or eight drinks, thus the lack of specificity in past studies may explain the inconsistent findings.

Abbey and colleagues [55] attempted to fill this gap in the literature by asking 113 male college students who acknowledged committing a sexually violent act to report the number of drinks they consumed during the incident. There was a positive linear relationship between alcohol consumption and aggression, such that the greater the number of drinks consumed, the greater the amount of aggression. As hypothesized, there was a curvilinear relationship between alcohol consumption and outcome severity, which was based on the tactics used and the type of sex that was forced (ranging from verbally coerced sexual contact to physically forced penetrative sex). As perpetrators' alcohol consumption increased from zero to four drinks, outcome severity also increased; it then plateaued until nine drinks were consumed. At that level of consumption, severity declined. It is not surprising that at extremely high levels of intoxication, perpetrators' cognitive and motor impairments were too debilitating for them to complete a rape [24].

Are There Any Other Unique Attributes of Alcohol-Involved Sexual Assault?—

A few researchers have compared the circumstances in which alcohol-involved and sober sexual assaults occur. Although most sexual assaults occur in the context of some type of dating relationship (ranging from casual hook ups to long-term, steady partners), intoxicated

perpetrators are more likely than sober perpetrators to sexually assault a casual acquaintance [55,59]. Intoxicated perpetrators are also more likely than sober perpetrators to report that the interaction was not planned in advance and that they spent time with the victim prior to the assault at a party or bar [55,59].

These studies also rarely consider the quantity of alcohol consumed. One exception is a study by Parkhill and colleagues [60] which examined descriptions of sexually assaultive incidents reported by 107 perpetrators in a representative community sample of young, single men from one large metropolitan area. Based on how much alcohol they consumed during the incident, participants were divided into three groups: no alcohol, light consumption (1-4 drinks), and heavy consumption (5 or more drinks). As compared to nondrinkers and light drinkers, heavy drinking perpetrators used more isolating and controlling behaviors to get the victim alone, misperceived her degree of sexual interest for a longer period of time, used more physical force, and committed more severe assaults. These differences were found after controlling for participants' usual heavy drinking and victims' drinking during the interaction, thus they demonstrate the specific effects of perpetrators' heavy drinking.

Do Perpetrators Who Use the Victim's Intoxication to Obtain Sex Have Unique Attributes?—Although the stereotypic sexual assault involves the perpetrator's use of physical force, other strategies are much more common. Most perpetrators identified in college and community samples use verbal coercion or the victim's impairment from alcohol or illicit drugs to obtain sex [31,61]. Alcohol is the drug of choice, with more than 95% of the impaired victims in one large study reporting that they consumed alcohol [1]. Although most state and federal statutes in the United States treat the use of physical force and the victim's incapacitation as equally serious offenses, many defense attorneys cast aspersions on impaired victims, which makes these cases difficult to successfully prosecute [62].

The possibility that perpetrators' choice of tactics might reflect individual differences in their personality, attitudes, or experience has only been evaluated in a few studies [63,64]. Using survey data from a sample of 189 male college students, Tyler and colleagues [64] found that the use of alcohol or drugs to incapacitate the victim was positively associated with usual alcohol consumption and favorable attitudes about casual sex. Lyndon and colleagues [63] compared nonperpetrators, perpetrators who used verbal coercion, alcohol, or drugs as a tactic (combined into a single group), and perpetrators who used physical force as a tactic in a college sample of 528 sexually active men. Both groups of perpetrators had more extreme scores than nonperpetrators on measures of childhood maltreatment, delinquency, acceptance of male violence, and sexual dominance.

Abbey and Jacques-Tiura [65] described the findings from a community sample of 457 young, single men. Perpetrators who used verbal coercion to obtain sex, perpetrators who used the victim's impairment to obtain sex, and nonperpetrators were compared on a wide range of common risk factors. As compared to nonperpetrators, both groups of perpetrators were more hostile toward women, had more positive attitudes about casual sex, had lower empathy, engaged in more delinquent behaviors, and had more drinking problems. For all these variables except attitudes about casual sex, perpetrators who used the victim's impairment as their tactic also had more extreme scores than did perpetrators who used verbal coercion as their primary tactic.

Perpetrators who used the victim's impairment also consumed more alcohol and were more intoxicated than perpetrators who used verbal coercion. Both perpetrators and victims in impaired sexual assaults drank approximately seven alcoholic drinks and were moderately intoxicated according to perpetrators' reports. This study's results extend the Zawacki et al.

[51] findings described earlier. They suggest that men who use the victim's impairment to obtain sex are similar to men who use verbal coercion to obtain sex on many personality and attitudinal factors. It is their heavy alcohol consumption during the incident and choice of tactics that sets them apart from other perpetrators.

Gaps in the Literature and Future Directions

Most of the research focused on alcohol's role in sexual assault has been conducted during the last two decades. As described above, alcohol administration researchers have demonstrated that intoxicated men react more favorably to date rape scenarios than do sober men. A few researchers have begun to consider how alcohol consumption interacts with pre-existing personality traits and attitudes that have been identified as risk factors for sexual assault perpetration. In these studies, men with attitudes that support violence toward women are particularly likely to report that they would behave in a sexually aggressive manner when intoxicated [41,43,44]. Additional research is needed that examines other risk factors in order to determine how alcohol consumption interacts with personality, beliefs, past experiences, and peer group and cultural norms. Because alcohol is one of many factors that contribute to sexual assault perpetration, it needs to be considered in context rather than isolation. For some men, on some occasions, alcohol may be the final straw that produces sexual violence [66]. On other occasions, perhaps with stronger social norms against violence, alcohol consumption may not lead to sexual aggression. Thus, situational factors (e.g., type of social occasion, presence of others) also need to be systematically manipulated and evaluated.

This type of information is needed to inform prevention programming efforts. It is particularly important for researchers to identify factors that inhibit sexual aggression among men predisposed to commit such acts. This information could be used in secondary prevention programs to help high risk men identify the situations most likely to trigger sexually aggressive feelings and strategies to counteract them. This information could also be used in primary prevention programs to help others identify high risk situations and intervene with potential perpetrators. Current bystander intervention programs encourage others to intervene when they see a potentially risky situation, such as a man taking an intoxicated woman upstairs at a fraternity party [67]. These programs could be strengthened by the inclusion of evidence-based scenarios depicting high risk situations and effective ways to intervene.

Surveys can address many important questions about actual sexual assault incidents that cannot be evaluated with the hypothetical scenarios used in laboratory studies. The studies reviewed above show that men who commit sexual assault when drinking have risk profiles similar to men who commit sexual assault when sober except they have more positive attitudes about alcohol and drink more in dating and sexual situations [51]. Many perpetrators commit multiple sexual assaults, some when drinking and some when sober [54]. These findings highlight the importance of developing integrated alcohol and sexual assault prevention and treatment programs that address both of these problems concurrently.

There are surprisingly few studies that provide detailed information about the characteristics of sexual assault incidents and contrast those that involve alcohol consumption to those that do not. Alcohol-involved sexual assaults are more likely to occur among casual acquaintances who spend time at a party or bar [55,59]. Intoxicated perpetrators are more likely than sober or light drinking perpetrators to use isolating and controlling behaviors to get the victim alone, to misperceive her degree of sexual interest, use physical force, and commit more severe assaults [60]. At high blood alcohol concentrations, assault severity declines presumably because of profound motor and cognitive impairments [55]. Although

alcohol is more likely to be consumed heavily in sexual assaults that involve casual relationships, a large proportion of sexual assaults occur in long-term relationships [17]. Thus, more research is needed that focuses on alcohol's role in steady relationships as well as casual ones. Relatedly, there needs to be greater theoretical and empirical integration of the sexual assault and intimate partner violence literatures [68].

Most of the research described in this paper was conducted with college students in the United States. It is important to replicate and extend this research in other countries with representative community samples as well as college students. The inclusion of ethnically diverse populations is also important. There is significant variation in patterns of alcohol consumption and beliefs about alcohol's effects based on nationality, ethnicity, religion, and other cultural factors that are likely to influence the relationships between alcohol and sexual violence across cultural groups. Prevention and treatment programs will be more effective if they can target culturally relevant factors.

In conclusion, there is no simple answer to the question, "Does alcohol cause sexual aggression?" Alcohol administration research verifies that people behave more aggressively when drinking; however, these effects are strongest for people who are already predisposed to be aggressive. Overall, survey research findings indicate that the personality characteristics, attitudes, and past experiences of sexual assault perpetrators who drink during the assault are similar to those who do not drink during the assault. Thus, intoxication may be a more important determinant of when some men commit sexual aggression, rather than who becomes sexually aggressive.

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