

Alcohol-Related Sexual Assault: A Common Problem among College Students*

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ABSTRACT. *Objective:* This article summarizes research on the role of alcohol in college students' sexual assault experiences. Sexual assault is extremely common among college students. At least half of these sexual assaults involve alcohol consumption by the perpetrator, the victim or both. *Method:* Two research literatures were reviewed: the sexual assault literature and the literature that examines alcohol's effects on aggressive and sexual behavior. *Results:* Research suggests that alcohol consumption by the perpetrator and/or the victim increases the likeli-

hood of acquaintance sexual assault occurring through multiple pathways. Alcohol's psychological, cognitive and motor effects contribute to sexual assault. *Conclusions:* Although existing research addresses some important questions, there are many gaps. Methodological limitations of past research are noted, and suggestions are made for future research. In addition, recommendations are made for college prevention programs and policy initiatives. (*J. Stud. Alcohol*, Supplement No. 14: 118-128, 2002)

ALCOHOL-RELATED sexual assault is a common occurrence on college campuses. A college student who participated in one of our studies explained how she agreed to go back to her date's home after a party: "We played quarter bounce (a drinking game). I got sick drunk; I was slumped over the toilet vomiting. He grabbed me and dragged me into his room and raped me. I had been a virgin and felt it was all my fault for going back to his house when no one else was home." A male college student who forced sex on a female friend wrote that, "Alcohol loosened us up and the situation occurred by accident. If no alcohol was consumed, I would never have crossed that line."

This article reviews the literature on college students' sexual assault experiences. First, information is provided about the prevalence of sexual assault and alcohol-involved sexual assault among college students. Then theories about how alcohol contributes to sexual assault are described. After making suggestions for future research, the article concludes with a discussion of prevention and policy issues.

Incidence and Prevalence of Sexual Assault among College Students

The term *sexual assault* is used by researchers to describe the full range of forced sexual acts including forced touching or kissing; verbally coerced intercourse; and physically forced vaginal, oral and anal penetration. The term *rape* is typically reserved for sexual behaviors that involve

some type of penetration due to force or threat of force; a lack of consent; or inability to give consent due to age, intoxication or mental status (Bureau of Justice Statistics, 1995; Koss, 1992). Less than 5% of adolescent and adult sexual assault victims are male, and when men are sexually assaulted, the perpetrator is usually male. Thus, most research focuses on female victims and male perpetrators.

Rates of sexual assault reported by college women

The most methodologically rigorous study of sexual assault prevalence was completed by Koss et al. (1987), who surveyed 6,159 students from 32 colleges selected to represent the higher education enrollment in the United States. They used 10 behaviorally specific questions to assess women's experiences with forced sexual contact, verbally coerced sexual intercourse, attempted rape and rape since the age of 14. In this survey, 54% of the women had experienced some form of sexual assault. Fifteen percent of the women had experienced an act that met the legal definition of completed rape; an additional 12% had experienced attempted rape. Of these women, 17% had experienced rape or attempted rape in the previous year. Only 5% of the rape victims reported the incident to the police; 42% told no one about the assault.

Similar prevalence rates have been found in studies conducted at colleges throughout the United States (Abbey et al., 1996a; Copenhaver and Grauerholz, 1991; Mills and Granoff, 1992; Muehlenhard and Linton, 1987). Most of these studies have been cross-sectional. In the prospective study that followed students for the longest period of time, Humphrey and White (2000) surveyed women from one

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university beginning in the fall of their first year and ending in the spring of their fourth year. Annual prevalence rates were alarmingly high, although they declined slightly each year. In their first year of college, 31% of the women experienced some type of sexual assault; 6.4% experienced completed rape. In their fourth year of college, 24% of the women experienced a sexual assault; 3.9% experienced completed rape. Greene and Navarro (1998) reported that none of the college women in their prospective survey reported their sexual assault to any college official. Women who reported their sexual assaults to authorities often labeled their treatment by the system as "a second rape." Awareness of the derogatory manner in which many victims are treated deters others from reporting.

A few studies have focused on prevalence rates among minority students. Rates of sexual assault experienced by black, Hispanic, Asian and white college women appear to be relatively comparable (Abbey et al., 1996a; Koss et al., 1987; Mills and Granoff, 1992).

Rates of sexual assault reported by college men

College men acknowledge committing sexual assault, although at lower rates than these acts are reported by women. In Koss et al.'s (1987) national study, 25% of the college men surveyed reported committing some form of sexual assault since the age of 14; 7.7% reported committing an act that met the standard legal definition of rape since the age of 14. Similar results have been found by other researchers (Abbey et al., 1998; Kanin, 1985; Muehlenhard and Linton, 1987; Rapaport and Burkhart, 1984). About two thirds of college men who acknowledge committing sexual assault report being multiple offenders (Abbey et al., 1998). Koss and her colleagues (Koss, 1988; Koss et al., 1987) suggested that college men report rates lower than college women do because many men view the woman's nonconsent as vague, ambiguous or insincere and convince themselves that their forcefulness was normal seduction not rape.

Prevalence of Alcohol-Related Sexual Assault

On average, at least 50% of college students' sexual assaults are associated with alcohol use (Abbey et al., 1996a, 1998; Copenhaver and Grauerholz, 1991; Harrington and Leitenberg, 1994; Presley et al., 1997). Koss (1988) reported that 74% of the perpetrators and 55% of the victims of rape in her nationally representative sample of college students had been drinking alcohol. Most studies do not include sufficiently detailed questions to determine if the quantity of alcohol consumed is an important factor. An exception is a study by Muehlenhard and Linton (1987), which compared the characteristics of dates that did and did not involve sexual assault. Sexually assaultive dates

were not more likely than nonassaultive dates to involve drinking; however, heavy drinking was more common on sexually assaultive dates.

Typically, if either the victim or the perpetrator is drinking alcohol, then both are. For example, in Abbey et al. (1998), 47% of the sexual assaults reported by college men involved alcohol consumption. In 81% of the alcohol-related sexual assaults, both the victim and the perpetrator had consumed alcohol. Similarly, in Harrington and Leitenberg (1994), 55% of the sexual assaults reported by college women involved alcohol consumption. In 97% of the alcohol-related sexual assaults, both the victim and the perpetrator had consumed alcohol. The fact that college sexual assaults occur in social situations in which men and women are typically drinking together makes it difficult to examine hypotheses about the unique effects of perpetrators' or victims' intoxication.

In general, alcohol consumption is more common among whites than blacks (Caetano et al., 1998). Thus, not surprisingly, alcohol-related sexual assaults appear to be more common among white college students than among black college students (Abbey et al., 1996a; Harrington and Leitenberg, 1994). Rates of alcohol-related sexual assault have not been examined in other ethnic groups.

Overall, the characteristics of alcohol-involved sexual assaults and sexual assaults that do not involve alcohol are similar. Approximately 90% of the sexual assaults reported by college women are perpetrated by someone the victim knew; about half occur on a date (Abbey et al., 1996a; Koss, 1988). Only about 5% involve gang rapes. The most common locations are the woman's or man's home (this includes dormitory rooms, apartments, fraternities, sororities and parents' homes) in the context of a date or party. Alcohol-involved sexual assaults more often occur among college students who know each other only casually and who spent time together at a party or bar (Abbey et al., 1996a; Ullman et al., 1999).

Explanations for the Relationship between Alcohol Consumption and Sexual Assault

The fact that alcohol consumption and sexual assault frequently co-occur does not demonstrate that alcohol causes sexual assault. The causal direction could be the opposite; men may consciously or unconsciously drink alcohol prior to committing sexual assault to have an excuse for their behavior. Alternatively, other variables may simultaneously cause both alcohol consumption and sexual assault. For example, personality traits, such as impulsivity, or peer group norms may lead some men both to drink heavily and to commit sexual assault.

It is likely that each of these causal pathways explains some alcohol-involved sexual assaults. A complex behavior such as sexual assault has multiple determinants both

across different perpetrators and for any one perpetrator. Abbey (1991) proposed seven different explanations for the relationship between alcohol and sexual assault. An expanded version of this model is described below and is summarized in Figure 1 (for a more thorough review, see Abbey et al., 1996b). This model focuses on the most common type of sexual assault that occurs between men and women who know each other and are engaged in social interaction prior to the assault, the prototypic college sexual assault situation. As can be seen in the figure, a combination of preexisting beliefs and situational factors contribute to acquaintance sexual assault. Alcohol has independent and synergistic effects. Some general information about causes of acquaintance rape are described below because alcohol often exacerbates dynamics that can arise without alcohol.

Two general caveats are needed before the literature supporting each element of the model is reviewed. First, there are personality characteristics (e.g., impulsivity, low empathy) and past experiences (e.g., childhood sexual abuse, delinquency) that have been consistently linked to sexual assault perpetration. This literature has been extensively reviewed elsewhere (Seto and Barbaree, 1997; White and Koss, 1993). Consequently, this article focuses on attitudinal and situational factors that interact with alcohol consumption to increase the likelihood of sexual assault occurring among college students. These factors are more likely to be amenable to change, and suggestions for prevention and policy initiatives are made at the end of this article.

A second important caveat concerns the relationship between explanations and causal responsibility. As the quotes at the beginning of this article indicate, perpetrators often use alcohol to excuse sexual assault perpetration, whereas victims often feel guilty because they were drinking. However, men are legally and morally responsible for acts of sexual assault they commit, regardless of whether or not they were intoxicated or felt that the woman had led them on previously. The fact that women’s alcohol consumption may increase their likelihood of experiencing sexual assault does not make them responsible for the man’s behavior, although such information may empower women when used in prevention programs.

Traditional gender role beliefs about dating and sexuality

American gender role norms about dating and sexual behavior encourage men to be forceful and dominant and to think that “no” means “convince me.” Men are expected to always be interested in sex, whereas women learn that they should not appear too interested in engaging in sexual activities or that they will be labeled “fast” or “promiscuous.” Women are expected to set the limits on sexual activities and are often held responsible when men overstep them (Clark et al., 1999; Werner and LaRussa, 1985). Men often interpret a woman’s sexual refusal as a sign that they should try harder or a little later rather than that they should give up. Although such beliefs may sound outdated, surveys of college students consistently find that men are

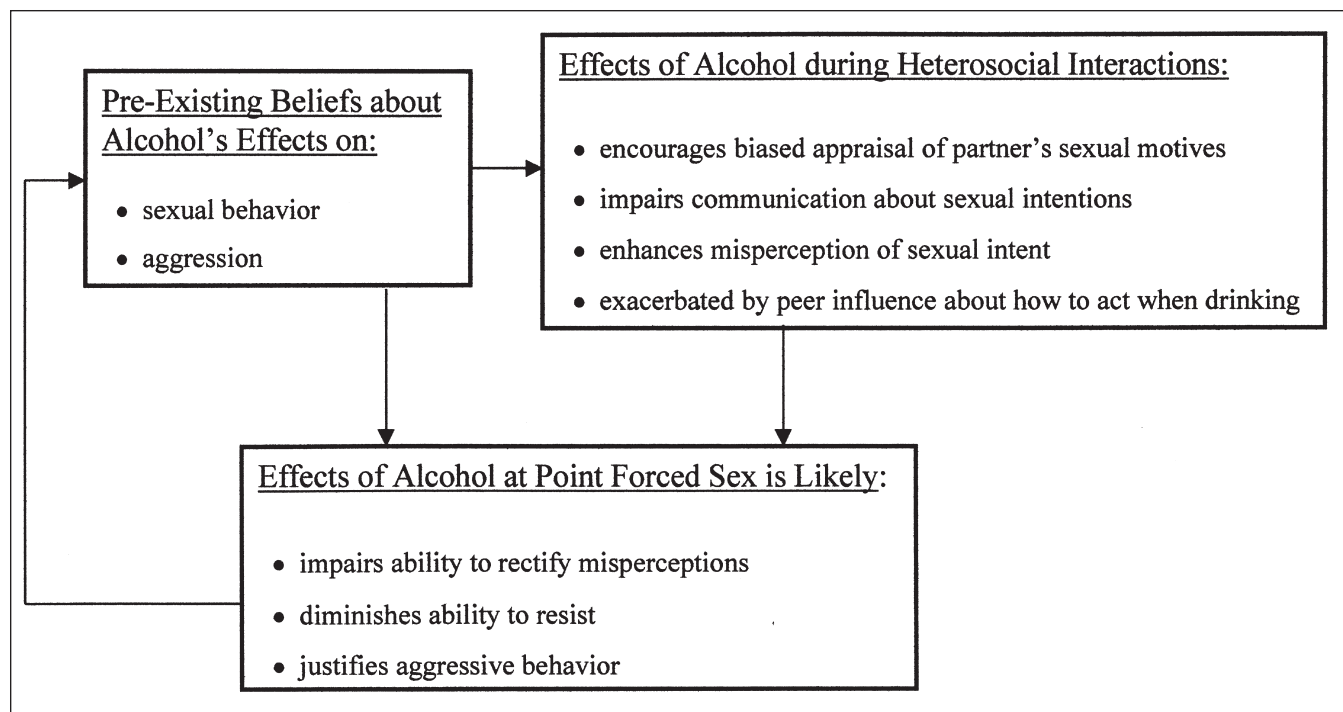


FIGURE 1. Conceptual model of alcohol-related acquaintance sexual assault

expected to initiate sexual relations and that women are expected to set the limits on how much sexual activity occurs (Clark et al., 1999; Wilsnack et al., 1997).

Both men and women agree that there are circumstances that make forced sex acceptable. For example, McAuslan et al. (1998) asked college students to indicate the extent to which it was acceptable for a man to verbally pressure or force a date to have sexual intercourse. More than half the men thought verbal pressure was acceptable if she kissed him, if they had dated a long time or if he felt she had led him on. More than 20% thought verbal pressure was acceptable if either of them was drinking alcohol or if they met at a bar. Force was viewed as less acceptable than verbal pressure, although 17% of men accepted force as a strategy under some circumstances. Overall, fewer women than men perceived pressure or force as acceptable, although the rank ordering of circumstances was comparable for both genders. Malamuth (1989) asked college men how likely it was that they would rape a woman if they were certain that there would be no negative consequences. On average, one-third of college men indicated that they would be at least somewhat likely to rape a woman if they could be certain they would not be caught. The data from these two lines of research are disturbing because they demonstrate how commonly held beliefs set the stage for date rape and why it is so seldom perceived as a crime. As is described in more detail below, these beliefs are more likely to be acted on when men have been drinking alcohol.

Men's expectations about alcohol's effects

Men anticipate feeling more powerful, sexual and aggressive after drinking alcohol (Brown et al., 1980; George and Norris, 1991; Presley et al., 1997; see the first box in Figure 1). These expectancies can have a power of their own, independent of the pharmacological effects of alcohol. Expectancies tend to become self-fulfilling (Snyder and Stukas, 1999). Thus, if a man feels powerful and sexual after drinking alcohol, then he is more likely to interpret his female companion's friendly behavior as being a sign of sexual interest, and he is more likely to feel comfortable using force to obtain sex. In one study, college men who had perpetrated sexual assault when intoxicated expected alcohol to increase male and female sexuality more than did the college men who perpetrated sexual assault when sober (Abbey et al., 1996b). Although these cross-sectional results do not demonstrate causality, they suggest that beliefs about alcohol's effects may have encouraged these students' behavior.

Several studies have demonstrated that college men who thought they were drinking alcohol were more sexually aroused by depictions of forcible rape than college men who did not think they had consumed alcohol (George and

Marlatt, 1986; George and Norris, 1991). Actual alcohol consumption did not affect these men's sexual arousal. George and Marlatt argued that the belief that one has consumed alcohol provides justification for engaging in socially inappropriate sexual behavior. If a man can say to himself, "I did that only because I was too drunk to know what I was doing," then he does not have to label himself as deviant.

Stereotypes about drinking women

Many college men perceive women who drink in bars as being sexually promiscuous and, therefore, appropriate targets for sexual aggression (Kanin, 1985; Martin and Hummer, 1989). For example, a college man who reported sexually assaulting a woman in one of our studies justified his behavior by writing, "She was the sleazy type . . . the typical bar slut."

In vignette studies, women who drink alcohol are frequently perceived as being more sexually available and sexually promiscuous than women who do not drink alcohol. For example, George et al. (1995) asked college students to read a vignette about a couple on a date. A woman who drank several beers was perceived as being more promiscuous, easier to seduce and more willing to have sex than a woman who drank cola. College students believe that dates are more likely to include sexual intercourse when both participants drink alcohol (Corcoran and Thomas, 1991).

Alcohol as a sexual signal

The studies reviewed above involve clearly consensual sexual situations. Other authors have asked college students to evaluate vignettes that depict forced sex between dating partners. Even when force is clearly used, the mere presence of alcohol leads many students to assume the woman wanted sex. For example, Norris and Cubbins (1992) found that nondrinking college women and men were most likely to view a depiction of acquaintance rape as consensual when both members of the couple had been drinking alcohol. Norris and Kerr (1993) found that nondrinking college men who read a forced sex vignette indicated that they were more likely to behave like the man in the story when the man had been drinking alcohol than when he was sober. Finally, Bernat et al. (1998) asked college men to listen to a depiction of a date rape and evaluate at what point the man was clearly forcing sex. Men who had previously committed sexual assault and who thought the couple had been drinking alcohol required the highest degree of female resistance and male force to decide the man should stop. In combination, these studies suggest that when forced sex occurs after a couple has been drinking together, men, and sometimes women, are much less likely to recognize that

the woman does not want to have sex. The results of these studies are not due to pharmacological effects of alcohol because sober individuals made these judgments. Instead, these studies suggest how strongly men equate drinking with a woman and having sex with her.

Men's misperceptions of women's sexual intent

Men frequently perceive women's friendly behavior as a sign of sexual interest, even when it is not intended that way. In a series of studies with college women and men, Abbey and her colleagues (Abbey, 1982; Abbey et al., 2000) have demonstrated that men perceive women as behaving more sexually and as being more interested in having sex with their male partner than the women actually are. Male observers make judgments similar to those made by male actors, and female observers make judgments similar to those made by female actors (Abbey, 1982), indicating that these are general gender differences in perceptions of women's behavior. Cues used to convey sexual interest are often indirect and ambiguous; thus it is easy to mistake friendliness for flirtation. For example, when an opposite sex acquaintance is very attentive, this might be a sign of sexual attraction. Alternatively, it might be a sign of politeness or merely an active interest in the topic of conversation.

Men usually feel responsible for making the first move because of gender role expectations about who initiates dating and sexual relations. Due to the embarrassment associated with rejection, these initial moves are usually subtle. For example, the man may stand close or ask the woman to slow dance or suggest they go to his apartment to talk. If he perceives an encouraging response (she does not back away or she agrees to dance or she goes to his apartment), then he will make another move (e.g., rub her back, tell her his roommates are not home). Both men and women are used to this indirect form of indicating sexual interest and usually manage to make their intentions clear and save face if their companion is not interested (Abbey, 1987). However, because the cues are vague, miscommunication can occur. Also, college men expect to have intercourse much earlier in a relationship than women do (Roche and Ramsbey, 1993); hence men are likely to initiate sexual advances before women expect them.

The man's alcohol consumption enhances the likelihood that misperception will occur and will escalate to the point that he forces sex (see second box in Figure 1). Alcohol consumption disrupts higher order cognitive processes such as abstraction, conceptualization, planning and problem solving, making it difficult to evaluate complex stimuli (Hindmarch et al., 1991; Peterson et al., 1990). When intoxicated, people have a narrower perceptual field; they are less able to attend to multiple cues and instead tend to focus on the most salient cues (Chermack and Giancola, 1997). Steele and Josephs (1990) labeled this phenomenon

"alcohol myopia." Thus, if an intoxicated man is sexually attracted to his female companion, it is easy for him to interpret any friendly cue as a sign of her desire to have sex with him and to ignore or discount any cue that suggests she is not.

Muehlenhard and Linton (1987) compared the characteristics of college students' dates that did and did not involve sexual assault. Men believed that dates on whom they had forced sex had "led them on" to a greater extent than did dates on whom they had not forced sex. Similarly, women who had experienced forced sex on a date were more likely than those who had not to believe that the man felt "led on," although women reported that this had not been their intention. In a more focused examination of the relationships between misperception, alcohol consumption and sexual assault, Abbey et al. (1998) found that the more frequently college men had misperceived a woman's sexual intentions and the more frequently they were drinking alcohol when they misperceived a woman's intentions, the more frequently they had committed sexual assault.

Alcohol's effects on men's willingness to behave aggressively

If a man feels that he has been led on or teased by his date he may feel justified forcing sex when sober (McAuslan et al., 1998). However, research consistently indicates that alcohol increases the likelihood that individuals will behave aggressively, especially if they feel as if they have been threatened or harmed (see third box in Figure 1). Experimental studies demonstrate that intoxicated men retaliate strongly if they feel threatened or provoked (Taylor and Chermack, 1993). Furthermore, once they begin behaving aggressively, it is difficult to make intoxicated men stop unless nonviolent cues are extremely salient.

In the case of sexual assault, a man may feel his aggressiveness is justified if he believes his partner encouraged his sexual interest and that once led on a man has a right to sex. Intoxication limits one's ability to consider the long-term negative consequences of behavior because it limits one's focus to short-term immediate cues. Thus an intoxicated man is likely to focus on his sexual arousal and sense of entitlement rather than the potential pain and suffering of his victim or the possibility that he will be punished. An alcohol-induced sense of disinhibition and reduction in anxiety and self-appraisal makes it easier for men to use physical force to obtain sex (Ito et al., 1996).

Alcohol's effects on women's ability to assess and react to risk

A woman who is drinking alcohol experiences the same types of cognitive deficits as a man does. Thus, if a woman feels that this is a platonic relationship or that she has made

it clear that she is not interested in sexual intercourse at this point in time, alcohol will make her less likely to process potentially contradictory cues and realize that her partner is misperceiving her. For example, imagine a man and a woman who have been dating several weeks. After seeing a movie together, the man may suggest going back to his apartment for a drink. His underlying message is "let's go back there to have sex" but he does not say that directly. The woman may respond, "Well, I guess I could come back for one drink, but I really can't stay long." Her underlying message is "I'd like to get to know you better but I'm not spending the night." However, she is also being indirect. Cognitive deficit theories (Steele and Josephs, 1990; Taylor and Chermack, 1993) suggest that when drinking it is very easy to focus only on the part of the message that one wants to hear. In this example, the man may hear only the confirming part of the message, "I'll come to your apartment," and ignore the disconfirming part of the message, "I won't stay long." In contrast, the woman focuses on the message she wants to hear, "I want to spend more time with you," rather than the message the man is trying to send, "I want to be alone with you so we can have sex."

In their study of college sexual assault victims, Harrington and Leitenberg (1994) examined whether alcohol consumption was related to consensual sexual activity prior to the assault. Overall, 74% of the women had engaged in kissing or another form of sexual contact prior to the forced sex. Victims who were intoxicated were more likely to have engaged in consensual sexual activities with the man than were sober victims. This finding supports the argument described above. Intoxicated women are less likely to realize that by kissing the man they are encouraging him to expect sexual intercourse. A woman in one of our studies wrote, "Alcohol put me in the mood for petting, kissing, holding and hugging, and he may have interpreted that as going further with sexual activity."

In addition, if and when a woman realizes that she has been misperceived, she must decide how to respond. Norms of female politeness and indirectness regarding sexual communication are so well internalized that some women find it difficult to confront a man directly, especially if they like him and hope to continue the relationship (Lewin, 1985). Unfortunately, if the woman is not direct and forceful about her lack of interest in sex, her companion is likely to perceive her behavior as flirtation or coyness, rather than as a refusal. Even a direct "no" is often interpreted as "try later" (Byers and Wilson, 1985); thus repeated, direct refusals are often needed for a woman to make her intentions clear to a persistent man. The longer a man continues to believe that consensual sex will occur, the more likely it is that he will feel justified forcing sex because he feels that he has been led on (McAuslan et al., 1998; Muehlenhard and Linton, 1987).

Testa and Livingston (1999) interviewed sexual assault victims, half of whom were college students. Women who were drinking at the time of the sexual assault reported that their intoxication made them take risks that they normally would avoid. For example, they felt comfortable taking a ride home from a party with a man they did not know well or letting an intoxicated man into their apartment. These women indicated that alcohol made them feel comfortable in situations that they usually would have perceived as dangerous. Norris et al. (1996) observed that when interacting with men on dates or at parties women must often "walk a cognitive tightrope" (p. 137). Women want men to like them and have been socialized to wear revealing clothes, act friendly and assume responsibility for maintaining positive social relationships by laughing at men's jokes, complimenting them and appearing interested in what they have to say. However, women also realize that sexual assault is common and that they must be on the alert to be assured that they can trust the man with whom they are interacting. Thus women's affiliation and safety motives are in conflict. On a date or with friends at a party or bar, women (and men) typically assume they can trust their companions. Being intoxicated allows women to let down their guard and focus on their desire to have fun and be liked rather than on their personal safety. Thus alcohol myopia may lead women to take risks they would not normally take.

Alcohol's effects on women's ability to resist effectively

Alcohol's effects on motor skills may limit a woman's ability to resist sexual assault effectively. There is some evidence that attempted as opposed to completed rapes are more common among sober than intoxicated victims, suggesting that sober victims are more able to find a way to escape or resist effectively (Abbey et al., 1996b). For example, a woman in one of our studies wrote, "I was very drunk and could not drive or get away from him even though we were in my car." Harrington and Leitenberg (1994) found that acquaintance rape victims who reported being at least somewhat drunk were less likely to use physical resistance strategies than were victims who were not drunk.

Many men who have committed sexual assault realize that it is harder for women to resist sexual advances when intoxicated; thus they try to get their female companion drunk as a way of obtaining sex (Kanin, 1985; Mosher and Anderson, 1986). Three-quarters of the college date rapists interviewed by Kanin indicated that they purposely got a date intoxicated to have sexual intercourse with her. Playing drinking games has been related to sexual victimization (Johnson et al., 1998). Women drink more than usual when playing drinking games, and men may use these games to get women drunk with the hope of making it easier to have sex with them.

Alcohol's effects on perceptions of responsibility

Alcohol consumption is sometimes used as a justification for men's socially inappropriate behaviors (Berglas, 1987). Of the college date rapists interviewed by Kanin (1984), 62% felt that they had committed rape because of their alcohol consumption. These men believed that their intoxicated condition caused them to initially misperceive their partner's degree of sexual interest and later allowed them to feel comfortable using force when the women's lack of consent finally became clear to them. These date rapists did not see themselves as "real" criminals because real criminals used weapons to assault strangers. Figure 1 (first box) includes a feedback loop between feeling that alcohol justifies aggressive behavior and preexisting beliefs about alcohol's effects. Once a man has used intoxication to justify forced sex, he is more likely to believe that alcohol causes this type of behavior and to use this as an excuse in the future.

In contrast, women tend to feel more responsible for sexual assault if they had been drinking alcohol (Norris, 1994). Women are often criticized for losing control of the situation, not communicating clearly, not resisting adequately and failing in their gatekeeper role. In one of our surveys, a woman replied to a question about if the assault was avoidable, "Yes, if I had not been intoxicated. . . . I would have been more in control of myself and the situation."

Other people also tend to blame intoxicated women for sexual assault. For example, Richardson and Campbell (1982) asked male and female college students to read a story about a college woman raped by a guest while cleaning up after a party. Both male and female students perceived the perpetrator as less responsible when he was intoxicated. In contrast, both male and female students perceived the victim as more responsible when she was intoxicated. The woman was also perceived as less likable and moral when she was drunk; however, alcohol consumption did not affect these judgments about the male. A more recent study (Hammock and Richardson, 1997) replicated the findings regarding the victim's alcohol consumption. Victims of sexual assault were held more responsible by male and female college students when they were intoxicated. These findings may help explain why less than half of college student sexual assault victims tell anyone about what happened (Koss et al., 1987). They may anticipate being blamed rather than supported.

Several other studies have found that judgments about sexual assault vignettes depend on whether both the victim and perpetrator were drinking or only the victim was drinking. For example, Stormo et al. (1997) found that when both the man and the woman were equally intoxicated, drinking women were held more responsible for sexual assault; in contrast, drinking men were held less responsible. However, a sober man was judged to be more responsible

when he assaulted an intoxicated woman, perhaps because he was seen as taking advantage of her. It is noteworthy that observers sometimes derogate men for taking advantage of an intoxicated woman, although many sexual assault perpetrators seem to experience no remorse about using this strategy to obtain sex (Kanin, 1985; Mosher and Anderson, 1986).

Peer environments that encourage heavy drinking and sexual assault

For some drinkers, alcohol provides a justification for engaging in behaviors that are usually considered inappropriate. This excuse-giving function is only effective if one's peer group shares the same beliefs. The peer group norms in some college social environments, including many sororities and fraternities, accept getting drunk as a justification for engaging in behaviors that would usually be embarrassing. The peer norms for most fraternity parties are to drink heavily, to act in an uninhibited manner and to engage in casual sex (Martin and Hummer, 1989; Norris et al., 1996). Although researchers have focused on Greek organizations, heavy episodic drinking and forced sex are not condoned by all fraternities or all members of fraternities. Other types of formal (e.g., athletic groups) and informal college peer networks can encourage drunken excess and inappropriate behavior.

Martin and Hummer (1989) argued that many fraternities create a social environment in which sexual coercion is normalized because women are perceived as commodities available to meet men's sexual needs. Alcohol is used to encourage reluctant women to have sex. One fraternity man stated that at parties, "We provide them [Little Sisters] with 'hunch punch' and things get wild. We get them drunk and most of the guys end up with one" (p. 465). With no remorse or guilt, this fraternity man described his plans to get one particular woman drunk by serving her punch without letting her know it was spiked for the challenge of having sex with a "prim and proper sorority girl" (p. 465).

Research has also been conducted with sorority women to determine the types of social pressure that they experience. Norris et al. (1996) found that most sorority women know that the emphasis at many fraternity parties is on heavy drinking and casual sex. In focus groups, they articulated warning signs such as getting too drunk or receiving attention from specific men who have a reputation for forcing sex. However, most of these women believed that they were "too smart to be raped" (p. 132). Thus these sorority women recognized that being drunk makes women easy targets, yet they thought they were better than other women at staying alert when drunk. These sorority women also seemed unwilling to report sexual assault when it occurred. They thought that the Greek system received too

much negative press; thus they felt responsible to be positive about it.

Summary of research regarding alcohol's role in college sexual assaults

Alcohol increases the likelihood of sexual assault occurring among acquaintances during social interactions through several interrelated pathways. These pathways include beliefs about alcohol, deficits in higher order cognitive processing and motor impairments induced by alcohol and peer group norms that encourage heavy drinking and forced sex. There is a synergistic relationship between men's personality traits (e.g., low empathy, high impulsivity), attitudes (e.g., believe forced sex is sometimes acceptable, believe women are coy about their sexual intentions and enjoy forced sex) and alcohol's effects. If a man believes forced sex is acceptable and women cannot be trusted, he may be comfortable raping when sober. Alcohol makes it even easier for men to feel comfortable forcing sex because alcohol myopia helps them focus solely on their desire to have sex rather than on the woman's signs of refusal and pain. Although data have been presented to support each of these arguments, causality cannot be firmly established because each study had methodological limitations. In combination, however, these studies demonstrate the many ways in which alcohol consumption can contribute to sexual assault.

Directions for Future Research

Given how many sexual assaults occur in high school and how many high school students report heavy episodic drinking, long-term longitudinal studies are needed that follow youth from early adolescence into adulthood. Prospective research would allow potential causes, such as stereotypes about drinking women, alcohol expectancies and usual alcohol consumption, to be measured prior to the experience of college sexual assault.

More precise measurement is needed of the amount of alcohol consumed in sexual assault situations. Because most researchers assess only whether or not any alcohol was consumed, it is impossible to evaluate whether perpetrators or victims were intoxicated at the time of the assault. The effects of one glass of wine with dinner are likely to be very different from the effects of 10 beers consumed within a 2-hour period at a party. Another difficult measurement issue concerns how to enhance the accuracy of drunken recall. If a woman was so drunk she was unconscious when she was raped, it may be impossible for her to fully and accurately describe what occurred. Methodological studies are needed that focus on how best to ask questions to enhance accurate recall of events that occurred under various levels of intoxication.

In-depth qualitative studies are necessary to better understand the precise role of alcohol in sexual assault. These studies need to include students from different cultural and ethnic backgrounds. Research with minority students, students at commuter schools and gay students is needed. A few authors have focused on Greek organizations and athletes; however, students with other interests and lifestyles also need to be represented in qualitative research.

Alcohol administration studies are required because only when participants are randomly assigned to drink an alcoholic or nonalcoholic beverage can one be certain that differences in their behavior are due to alcohol rather than other factors such as prior drinking history. Because sexual assault cannot be an outcome in laboratory studies, appropriate proxies must be used. Some researchers have exposed participants to pornography as a proxy for sexual assault (George and Marlatt, 1986; Hall and Hirschman, 1994). Other researchers have asked participants to evaluate written or audio depictions of sexual assault when intoxicated or sober (Bernat et al., 1998; Norris and Cubbins, 1992). Whenever participants read stories about sexual assault, there is a concern that they may not respond in the same way that they would to an event in their own lives. Research that helps explain how other people react to sexual assault victims is important in its own right because victims are so often blamed by others.

Many of the studies that have informed theory about alcohol's role in sexual assault have examined general aggressive and sexual behavior. Additional research in these areas can be used to develop prevention and treatment programs. For example, research can investigate the circumstances under which men are most willing to aggress against a female confederate (Taylor and Chermack, 1993) or delineate the types of cues that intoxicated men are most likely to misperceive (Abbey et al., 2000).

Prevention and Policy Implications

There are many potential prevention and policy implications that stem from this review. The suggestions provided here are derived from the literature; however, they have not been evaluated. It is crucial that colleges develop evaluation plans so that they can determine the effectiveness of the programs they utilize.

One simple, but important, policy implication that derives from this review is that the individuals on campus who are responsible for programs on the prevention of alcohol misuse must work in conjunction with those individuals responsible for programs on the prevention of sexual assault. Most acquaintance rape prevention programs discuss alcohol as a risk factor, but many do not emphasize it (Bohmer and Parrot, 1993). In a similar manner, programs that describe responsible drinking do not typically empha-

size sexual assault as a consequence of heavy drinking. Programs on prevention of alcohol misuse can provide students with the precise definition of sexual assault in their state and information about the prevalence of alcohol-related sexual assault among college students. These programs can also explain that alcohol is not legally considered a mitigating factor for sexual assault and that having sex with someone too intoxicated to give consent is legally rape.

Most research currently being conducted to explain alcohol's effects on behavior focus on the role of alcohol-induced cognitive deficits in producing a variety of risky, socially disapproved of behaviors. According to alcohol myopia theories (Steele and Josephs, 1990; Taylor and Chermack, 1993), alcohol causes people to focus on the most salient cues in the situation and ignore or minimize peripheral cues. In the domain of sexual assault, the assumption is that the man's immediate sexual arousal and anger are much more salient than the potential risk of being accused of sexual assault.

This argument suggests that increasing the salience, explicitness and centrality of inhibitory information should be an effective prevention strategy. If the costs of sexual assault are obvious, undesirable and immediate, then intoxication-driven sexual assaults are less likely to occur because the potential perpetrator cannot forget about the likely, undesirable consequences. This suggests that colleges need strong, consistent, well-publicized policies that no one can ignore. Men need to know that "no means no" and that forced sex is a crime that the university will not tolerate. Students need to know how to report sexual assault to university authorities, how cases will be evaluated and what the sanctions are for the perpetrator and organizations that facilitated the assault. The campaign to reduce driving while intoxicated has used a similar approach by making the legal and social consequences of driving while intoxicated more salient and serious, and it has been successful in reducing the incidence of this crime (Voas et al., 1998).

The second predominant theory regarding how alcohol exerts its effects concerns the role of people's beliefs about alcohol. If students believe that alcohol makes them do wild and crazy things that they would not do otherwise, then they are much more likely to act out when drinking. The policy implications of this research are twofold. First, educational efforts are needed to change students' alcohol expectancies and to emphasize negative consequences such as making bad decisions, feeling embarrassed the next day and doing poorly in school. Second, these programs have to make it clear that intoxication does not excuse illegal or immoral behavior, so claiming "I did it because I was drunk" will not reduce the consequences. General interventions designed to challenge college students' expectancies about alcohol's effects have been effective in reducing alcohol

consumption (Darkes and Goldman, 1993), suggesting that those specifically targeted at expectancies regarding sex and aggression may also be beneficial.

Many college women realize that getting drunk at a fraternity party puts women at risk of being sexually assaulted (Norris et al., 1996). However, a sense of personal invulnerability leads women to believe that they are too smart for it to happen to them. These college women are not unique; many psychological studies have demonstrated that young people feel personally invulnerable to the consequences of a wide variety of risky behaviors (Weinstein and Klein, 1996). Prevention programs that strip away some of this sense of personal invulnerability are necessary so that women will take more precautions. Optimism is in many ways psychologically adaptive; thus programs must avoid scare tactics that make women feel helpless and unable to trust any man. Although the rates of sexual assault are very high, the probability of any one date or party involving sexual assault is low. Thus women must be able to enjoy themselves most of the time, but remain alert for men that are trying hard to get them to drink alcohol, take drugs or accompany them to an isolated location.

Women sometimes seem to feel that it is easier to give in than to fight a sexually coercive man. Lewin (1985) quoted a college woman who wrote, "I feel that I had to go through with the complete sex act because of a feeling of pressure. . . . I felt perhaps I would let him down and as a result he would like me less . . . in fact he never spoke to me after the experience. . . . I should have been as selfish as he was" (p. 184). Some authors have suggested that a passive response is most likely if the man is a current or past boyfriend who feels that he is entitled to sex (Testa and Livingston, 1999). The myth that it is impossible for a sexually aroused man to control himself still seems to be believed by many male and female college students. These findings about some women's reluctance to be forceful with sexually persistent men have prevention and policy implications. Educational programs for women need to encourage them that they have the right to refuse sex at any time, with anyone, regardless of their relationship or previous degree of sexual interaction. In addition, women need to know that being verbally and physically assertive are often effective resistance strategies and that when they are drunk they will have a harder time effectively resisting. Educational programs for men need to teach them to take subtle signs of disinterest seriously. If a woman says "no, I don't want to do that now," that comment should be enough to stop their sexual advances; a woman should not have to scream or kick to get her point across. Many female and male college students engage in sexual activities they later regret, because they are uncomfortable being straightforward in sexual communications. Programs that help students learn to talk about sex with potential sex partners are

needed. Because alcohol makes it easy to ignore subtle signals, men need to be particularly careful when they are drinking to communicate their sexual desires clearly and to obtain active consent from a woman before engaging in sex.

Prevention programs should begin in middle school, as dating relationships begin to develop. College students are still open to new ideas; thus sexual assault prevention messages need to be provided to male and female college students early and frequently. New students can be provided with information at orientation about the many consequences of heavy drinking, including sexual assault. Programs need to be interesting and to use a variety of modalities including videos, theater groups, role playing and coed discussion groups. Peer leaders are crucial to demonstrate that other students share these concerns. Special efforts need to be made with Greek organizations, sports teams and other large social groups to enlist their support in prevention efforts. Students are motivated by their peers' beliefs. Demonstrating that not all members of Greek organizations or athletes approve of heavy drinking or forced sex can empower more students to show their disapproval. Conducting needs assessment surveys and focus groups with students on campus can provide information that helps tailor prevention programs to the specific needs of students at that institution. Faculty, staff and administrators need to be well informed so that they can support program efforts. Women who report being sexually assaulted after drinking heavily at a party need to know that they will be treated with respect and concern by campus personnel, or they will continue to keep this crime a secret.

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