

What is the relationship between alcohol and sex? Exploring the physiological, psychological, social and sexological aspects of alcohol and sexual activity

Alcohol consumption and implied sexuality have been associated in Western and Judeo-Christian societies since Biblical times. Cultural images of alcoholic intake during ceremonial, sacral and recreational events are so prevalent that the substance has earned the distinction of an intoxicant that is legal, desirable, or even required in order to elevate the status of formal gatherings. Nevertheless, alcohol has also been implicated in problematic sexual outcomes, including unwanted pregnancy, sexual assaults, sexually transmitted infections, and general sexual dysfunction. The physiological effects of alcohol are well known to most, even to those who do not consume the substance. Principally, alcohol is a CNS depressant that in small quantities produces initial euphoria, relaxation and extraversion in the imbibing subject; in progressively higher amounts, however, the subject will progress through a trajectory of increasing lethargy, confusion, stupor, coma, and even death, depending on the amount consumed. Due to various physiological effects of the ethanol present, the subject may experience a slowing of cognitive processes, blurred vision, and even anterograde amnesia, a concept popularly known as "blacking out." While the subject is awake and conscious, the time period experienced during the memory loss is never recalled; meanwhile, the subject is capable of engaging in various mental and physical tasks such as talking, driving or engaging in sexual behavior (Sweeney, 2004). In terms of gender differences in the metabolism of alcohol, studies have shown that smaller gastric metabolism in females leads to significantly lesser activity of the enzyme chi-ADH, (glutathione-dependent formaldehyde alcohol dehydrogenase), rather than to differences in gastric emptying or hepatic oxidation of alcohol. This contradicts past

research which claimed that women's smaller body size and their relatively higher percentage of fatty tissue was responsible for easier intoxication in human females (Baraona, Abittan, Dohmen, Moretti, Pozzato, Chayes, Schaefer & Lieber, 2001). These physiological sequelae may be of significant importance when considering alcohol as a potentially causative influence on sexual responses and outcomes. Alcohol consumption increases subjective sexual desire and arousal, although it lowers physiological arousal, particularly for women. Heavy alcohol use in women is also associated with sexual dysfunction (Beckman & Ackerman, 1995) and alcohol intoxication has been found to reduce vaginal arousal (Wilson & Lawson, 1978, cited in George & Stoner, 2000). In a study of drinking behavior, sexual activity and contraceptive use, Harvey and Beckman (1986) found that female-initiated sexual behavior appeared to be negatively associated with alcohol consumption. Women initiated significantly more sexual activities following no alcohol than with moderate or heavy use. The research results are more conflicting when it comes to male physiological changes for men. In a review of five studies, it was found that alcohol did not suppress penile tumescence (George & Stoner, 2000). These null effects were generally attributed to the low BAC (blood alcohol content) used for investigative purposes; other studies have shown suppression of penile tumescence at these dosages, although in the study evaluating the highest dose reported to date (.15mg%), alcohol suppression of penile tumescence was not evident. Another paradoxical finding suggests that alcohol may impair the ability to inhibit and control arousal in men, i.e. alcohol impairs men's capacity to control penile reactions. In other words, when men attempt to suppress arousal during erotic or sexual stimulation, alcohol reduces the efficiency with which they are able to do so. (George & Stoner, 2000).

The alcohol myopia theory (Steele & Josephs, 1990) is emerging as the most useful model in understanding the biopsychological effects of alcohol on sexual behavior. It builds on the established observation that alcohol physically impairs cognitive processing of information in perception and thought, rather than relying on the perception of the pharmacological ability of alcohol to directly cause specific reactions or expectations. When experiencing competing urges to engage versus hold back in a sexually desirable situation, alcohol favors engagement by muting or selectively disregarding prior inhibitions and narrowing the subject's vision toward sexual agency. Data from seven studies of college-aged males were aggregated to examine how reported sexual arousal and alcohol intoxication interact to affect attitudes and intentions toward engaging in unprotected sexual intercourse. In support of the alcohol myopia model, self-reports showed that sexual arousal had no effect on the responses of the subjects when they were in a sober condition. When participants were intoxicated, however, those who were sexually aroused reported more favorable attitudes and intentions toward having unprotected sex than did those who did not feel aroused (MacDonald, MacDonald, Zanna & Fong, 2000). Alcohol use has also been identified as a factor related to unsafe sexual behaviors among HIV-positive MSM (men who have sex with men.) In a qualitative study of 48 HIV-positive ethnically diverse males, the majority of who met criteria for alcohol dependence and more than half of the sample had been treated for alcohol abuse in the past, alcohol was part of routine social interactions. It was found that consuming the substance decreased self-monitoring and increased reliance on environmental stimuli and situational cues. In spontaneous sexual encounters, intoxicated subjects would more readily engage in unsafe sex; during incidents labeled "taboo," subjects would engage in acts which they believed to carry certain

stigma, or which they came to regret later. Participants often described these events as "recurrent." Thus, alcohol acted to alter the men's primary sexual scripting, e.g. with subjects engaging in anally receptive sex when they otherwise would be "tops" or as HIV-positive men infecting unknown or reportedly HIV-negative partners (Parsons, Vicioso, Punzalan, Halkitis, Kutnick & Velasquez, 2004).

Alcohol myopia and the narrowing of inhibitions are factors in sexual assaults, the majority of which are perpetrated upon females by males. A review of the sexual assault literature and the literature that examines alcohol's effects on aggressive and sexual behavior suggests that alcohol consumption by both perpetrator and victim increases the likelihood of acquaintance sexual assault through several interrelated pathways (Abbey, 2002). 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. Statistically, at least 50% of college students' sexual assaults are associated with alcohol use (Abbey 1996, cited in Abbey, 2002). Socially, traditional gender role beliefs about dating and sexuality may influence these statistics. Men often interpret a woman's sexual refusal as a sign that they should emphasize their attempts at sexual engagement or delay and reattempt rather than giving up. This issue is further complicated by the social stereotype encouraged among women where succumbing to a measure of aggression is seen as socially and romantically desirable. Evidence of gender role stereotypes in vignette studies has shown that women who drink alcohol are frequently perceived as being more sexually available and sexually promiscuous than women who do not drink alcohol. Vignette studies have also suggested 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 the pharmacological effects of alcohol, since sober individuals made these judgments; instead, these studies suggest how strongly men equate drinking together with a woman and then having sex with her. Alcohol also increases the likelihood that individuals will behave aggressively, especially if they perceive a threat, harm, refusal or even rejection. An intoxicated individual is more apt to focus on his sexual arousal and sense of entitlement rather than the potential pain and suffering of his victim. The myopia model can be applied in that the perpetrator narrows or even occludes his judgment in terms of punishment for his actions. As for the victim, she (or he) may act out risky or otherwise unwanted sexual behavior motivated by the same cognitively myopic factors. Interestingly, one study suggests that women assume responsibility and feel failure after being assaulted while intoxicated (Norris, 1994, cited in Abbey, 2002). Other studies have addressed the issue of culpability and judgments among respondents to vignettes in which both perpetrator and victim were intoxicated, or the victim was the sole imbiber. Sexism is evident in results showing that when both the man and the woman were equally intoxicated, drinking women were held more responsible for sexual assault; drinking men were always held less responsible (Abbey, 2002).

In contrast to focusing on the many areas of research concerning alcohol and its deleterious effect on sexuality, the sexological paradigm calls for the integration of many sexual elements to create a synergistic model of a healthy sex life for the individual. One such model includes the pursuit and enjoyment of exposure to erotica and explicit sexual materials. Researchers have investigated the effects of alcohol variables on erotica interest and found that alcohol overwhelmingly affected such interest

(George & Stoner, 2000). There is also circumscribed evidence that alcohol intake increased erotica viewing for both men and women. In addition, during experiments in which men were paired with a drinking co-participant, men viewed erotica longer than when accompanied by a non-drinking fellow subject (George, Stoner, Norris, Lopez & Lehman, 2000, cited in George & Stoner, 2000). Thus, minimal quantities of alcohol as a socio-sexual lubricant may be justified in cases where the goal is to expand the sexual repertoire for an individual or encourage positive sexual function in the dyadic unit. Finally, a recent study of the sexual activities of over 3,000 male and female adults aged 57-85 undertaken under the aegis of the National Social Life, Health and Aging Project, found that women who drink alcohol daily report more interest and pleasure in their sexual activity than their non-drinking counterparts. Men showed no such link (Laumann, Aniruddha, & Waite, 2008). It is not clear whether a daily quantity of alcohol for older female adults leads to higher sexual function in women, or if women who have fewer sexual dysfunctions also tend to drink higher quantities of alcohol. From a sexological perspective that neither encourages excess nor promotes abstinence, however, these findings are interesting and worthy of further exploration in the advancement of healthy sexuality for the aging population which is expanding not just in the United States, but worldwide.

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