

## **Violence Prevention**

Violence and substance abuse are serious public health concerns. Violence refers to high levels of aggression, i.e., behavior intended to harm another person. Violence is a pervasive and universal social phenomenon that elicits substantial societal, economic, and health costs. The relationship between substance use and violence is exceedingly complex. Indeed, most alcohol and drug use does not result in violent behavior, and some psychoactive substances have no link to violence at all. However, evidence of alcohol and drug use is often found in both perpetrators and victims of violence. Violence and substance use are multiply determined by a variety of factors including social, economic, and cultural forces. More proximally, substance use interacts with personality and situational variables in determining whether violence will occur in a particular situation. This entry first explores the types of violence associated with substance use, followed by an examination of which substances are associated with aggressive behavior. Next there will be a discussion of the situational and personality factors that moderate the relationship between substance use and violence, as well as the risk factors common to substance abuse and violence. Strategies for preventing substance-induced violence are discussed.

### **Types of Violence Associated with Substance Abuse**

Numerous types of violence are associated with some forms of substance abuse. Although admittedly an oversimplification, for the purposes of this discussion, these types can be dichotomized into violence that is related to the pharmacological effects of the substance and

violence that does not meet this criterion. The first category refers to violence occurring after ingesting alcohol or drugs, during withdrawal, or violence resulting from long-term use.

Examples include violence as a result of intoxication or agitation resulting from withdrawal symptoms. The second category refers to instrumental aggression that occurs due to the expense associated with purchasing substances or the result of the illegal status of the substance.

Examples include assault and robbery to support one's addiction, gang warfare over territory, and retribution (e.g., for a drug deal "gone bad"). Because the prevention of such types of violence typically requires resources that are unavailable to most mental health professionals, this entry primarily focuses on violence associated with the pharmacological effects of alcohol and drugs.

### **Which Substances are Associated with Aggression?**

According to the American Psychiatric Association, classes of substances with potential for abuse include alcohol, amphetamines (e.g., metamphetamine), cannabis (i.e., marijuana), cocaine, hallucinogens, inhalants, nicotine, opiates (e.g., heroin), phencyclidine (PCP), and sedative-hypnotics (e.g., barbiturates). More recently, 3,4-methylenedioxymethamphetamine (MDMA; "ecstasy") has emerged as a popular recreational drug. Because most of the research on aggression and substance use is correlational, one must be careful about assuming causal relationships. Controlled experimental studies are helpful for inferring causal associations between manipulated situational variables, measured personality variables, and pharmacological effects on aggressive behavior. However, with the exception of alcohol, experimental studies are either uncommon or non-existent in this literature. In the United States, two of the most

frequently used substances are alcohol and cannabis. The empirical evidence for the pharmacological effects of alcohol in increasing aggression is overwhelming. In contrast, the evidence for cannabis suggests no causal relationship between its pharmacological effects and violence.

Among all the substances of abuse, alcohol has the most consistent relation with violence in the research literature. Alcohol is the most common substance found among victims of violence and perpetrators, although this result is confounded with its widespread availability and abuse. A 1998 U.S. Department of Justice report found that approximately 3 million alcohol-related violent crimes occur each year and that about two-thirds of these crimes were characterized as assault. Acute alcohol use by the perpetrator is especially likely in intimate partner violence (about two-thirds of cases) relative to violence by strangers (about one-third of cases). Alcohol is also involved in a large number of homicides and suicides. Estimates of alcohol use by offenders prior to committing homicide are typically quite high (up to 86%). A 2005 Australian government report found that 47% of homicide perpetrators had consumed alcohol at the time of the murder and 32% had consumed illegal drugs. Perhaps the strongest evidence for a causal role of alcohol is found in several meta-analyses of laboratory experiments. These data have revealed consistent relationships between alcohol and aggression, most often in the presence of provocation (see below).

A commonly proposed mechanism underlying alcohol-induced aggression is the lowering of anxiety and inhibitions against violence. Alcohol reduces the fear of retaliation normally associated with aggressive behavior. This reduced fear lowers restraints against violence. Thus, when provoked, intoxicated individuals may be more likely to behave aggressively than sober

individuals. Sedative-hypnotics have been similarly implicated for identical theoretical reasons; however, experimental research indicates that the degree of violence associated with this class of drug is minor compared to alcohol-induced aggression.

Claude Steele and colleagues have focused on a cognitive explanation for alcohol-induced aggression, known as *alcohol myopia* theory. According to this theory, alcohol impairs cognitive processing capacity, thereby narrowing attention, and ultimately restricting the focus of attention to those cues that possess the most salience. These highly salient cues could include acts easily interpreted as aggressive (e.g., an innocuous “bump” in a bar). Cues that might inhibit aggression are potentially more distal and therefore less salient, especially for intoxicated individuals.

In a 2003 qualitative review of the experimental and non-experimental literature on alcohol, drugs, and aggression in humans, alcohol and stimulants (amphetamine and cocaine) appeared to increase aggression. However, another 2003 review concluded that the experimental literature on stimulants and aggression was inconclusive. Thus, the role of stimulants and aggression remains debated. Initial responses to alcohol can include increased arousal and approach motivation – reactions also common to stimulants. Increased arousal leading to violence is consistent with social psychological research on Dolf Zillman’s excitation transfer theory. According to this theory, when an individual is aroused (perhaps via intoxication) and provoked, the physiological arousal is misattributed to the provocation and thereby amplifies aggression. Provoked individuals who are also experiencing drug-induced arousal might misattribute the arousal to anger and subsequently lash out.

A qualitative review also concluded that nicotine, cannabis, and hallucinogens are not associated with violence. This same review suggested that links between the opiates and

aggression stemmed from withdrawal or instrumental acts of aggression perpetrated to obtain money for drugs. Only limited case study evidence supports a link between PCP and violence. Although there is limited empirical evidence, sedative-hypnotics may increase aggression due to agitation during intoxication and withdrawal. A 2003 review concluded that there was too little research on MDMA to suggest a link between the drug and violence. There is also too little research on inhalant use to suggest a causal association.

### **Risk Factors Common to Substance Abuse and Violence**

Because the majority of research on substance use and violence is correlational, caution must be exerted when inferring causal associations. Numerous factors tend to covary with both substance use and violence. Perhaps the most obvious is gender. Men tend to be more aggressive than women. A 2006 report by the Centers for Disease Control (CDC) found that men had a homicide rate three times higher than women. Men tend to drink more and use some drugs more often than women, although not universally. Young people also engage in more substance use and violent acts than older people. The recent CDC report found the highest rates of homicide among 15 to 24 year-olds. Perhaps not surprisingly, certain “problem” youth tend to engage in multiple deviant behaviors simultaneously (e.g., alcohol and drug use, violence, risky sexual behaviors). For example, a recent study of American middle and high school students reported that both substance abuse and other non-violent deviant behaviors accounted for violent behavior equally well. Among adolescents, even marijuana use, a drug with no direct causal effects on violence, is sometimes correlated with violence among adolescents, likely due to the deviant nature of illegal

drug use. In addition, childhood maltreatment or being a victim of violence and other trauma may also covary with alcohol and drug use.

### **Personality and Situational Contributors**

Both person and situation variables contribute to the effects of substance abuse on violence. The vast majority of this research has examined alcohol. For instance, individuals who tend to behave aggressively (e.g., those high in trait aggression or individuals with antisocial personality disorder) behave even more so when given alcohol. Moreover, those who tend to ruminate about interpersonal transgressions are also more likely to behave aggressively when given alcohol.

Another individual difference variable that may increase aggression is the expectancies that people hold regarding alcohol and aggression. Although most research suggests that expectancies do not directly increase aggression, there is evidence that heavy drinkers who expect alcohol to increase aggression tend to behave in a manner consistent with their beliefs. This appears to be especially true when there are aggressive cues in the environment. Social-cognitive models of personality posit that some individuals possess aggression-related knowledge structures that are easily accessible when triggered by situational cues (e.g., alcohol consumption, provocation). Thus, these situational features may trigger aggressive behavior among those high in trait aggression, ruminators, those who endorse aggressive alcohol-related expectancies, and people with antisocial personality disorder.

Quantitative reviews of the experimental literature consistently show that alcohol increases aggression and that this effect is moderated by a number of situational variables. Alcohol

consumption is particularly likely to increase aggression after provocation in locations where aggression is more normative. Thus, the primary situational variable responsible for increasing aggression is provocation. In laboratory experiments that orthogonally manipulate intoxication and provocation, intoxicated individuals who are provoked are usually the most aggressive. These provocations are often relatively minor or ambiguous and can be verbal or physical in nature.

Another important situational variable that may increase aggression among intoxicated individuals is the social norms that are associated with certain places or events. For instance, some bars are characterized by norms that tolerate violent behavior. Sporting events and some sports bars make team social identities salient (e.g., team banners, wearing specific clothing). The salience of this group membership can trigger norms of ingroup protection and outgroup derogation, especially among those who tend to identify strongly with their ingroup. Such events, when combined with alcohol, can lead to violence between groups such as that exhibited during some soccer matches. Alcohol and some types of drug intoxication in conjunction with large group settings may also increase deindividuation (a loosening of normal moral constraints in groups), which can increase violent behavior.

### **Strategies for Prevention**

Although many interventions have specifically addressed either violence or substance abuse, relatively few studies have investigated interventions for both. Given the causal effects of alcohol and some other drugs on violence, violence intervention programs should contain some

component to address alcohol and substance abuse. Violence interventions have typically been directed at the *individual* level (e.g., intimate partner violence, child maltreatment), the *community* level (e.g., youth and gang violence), or both. Although not commonly investigated, changing *situational features* of the environment where drinking and drug use occurs is likely to prove beneficial as well.

At the individual level, couples therapy and therapy designed to reduce substance abuse reduces intimate partner violence. At the community level, violence prevention programs that address multiple factors have proven most effective. Indeed, reducing alcohol consumption without addressing other factors among at-risk youth is unlikely to decrease aggression, especially if these individuals are involved in violent gangs or other risky, delinquent behaviors. In addition, alcohol and drug availability remains important. Neighborhoods with more bars and liquor stores per capita are more violent. Because violence associated with substance use disproportionately affects young men and women of color from disadvantaged economic backgrounds, most research at the community intervention level has focused on these groups. Such violence prevention and substance abuse programs should be culturally sensitive with input and assistance from community members whenever possible.

At the situational level, a number of inexpensive and simple changes could decrease aggression markedly. Given alcohol's strong impact on violence and its availability, preventing alcohol-induced violence is a challenge. Perhaps the most obvious situational intervention would require decreasing the probability or provocation in locations where alcohol is consumed. Security staff at bars can reduce aggression by reducing provocation. Some bars are characterized by acceptance of violent behavior, rowdiness, and high levels of intoxication. Norms of interpersonal

tolerance and moderate drinking should be promoted at such bars and events involving alcohol. When such norms are salient, aggression is likely to decrease. Sports bars could display team memorabilia from multiple teams and focus on creating a welcoming environment for fans of all teams, thereby reducing the salience of one social identity over another. A meta-analysis revealed that increased self-focused attention (e.g., having a mirror in the room) reduced alcohol-induced aggression. Self-focused attention increases the accessibility of one's personal norms and "ideal self" which usually involves being a good, moral person. Thus, mirrors, cameras, and bright lighting in bars and in homes may prove effective in reducing violence associated with alcohol and drugs.

## **Conclusion**

Due to limited conclusive evidence and sometimes inconsistent findings, more experimental research is needed on drugs other than alcohol to tease apart the complex interactions among numerous factors that contribute to violence. Ultimately, such research will increase the effectiveness of substance-related violence prevention strategies. Also, because not all individuals behave aggressively after consuming alcohol or drugs, more research and better identification instruments are necessary to determine who is at risk for substance-induced violence. More research and funding is needed for intervention programs that simultaneously address numerous risk factors for alcohol- and drug-induced violence. Such research may lead to marked improvement in these serious public health problems.

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*See also* Alcohol, Causal Factors in Alcoholism and Drug Addiction, Crime and Substance Abuse, Economic Costs of Alcohol and Drug Abuse, Neurocognitive Effects of Alcohol and Other Drugs, Violence, Intimate Partner, and Substance Abuse Treatment.

### **Further Readings**

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