Gambling and Alcohol

Pathological gambling (PG) is characterized by a persistent maladaptive pattern of gambling behavior. PG is classified as a disorder of impulse control. This newsletter explores the association between pathological gambling and alcohol abuse.

Pathological Gambling

During the 1990s, changes in state and local legislation encouraged the expansion of all types of wagering including casino gambling, lotteries, and internet gambling. As an apparent consequence, gambling and gambling-related problems are on the rise in the United States. The current prevalence of pathological gambling is estimated at four percent among people younger than 18 years of age. Studies looking at cross sections of different age groups have shown that pathological gambling prevalence rates appear higher for adolescents and younger adults than for middle-aged and older adults. A new study reports that adolescents are becoming more addicted to gambling than to alcohol, drugs, or cigarettes.

Alcoholism

Alcoholism or alcohol dependence is a chronic disease marked by a craving for alcohol. People who suffer from this illness cannot control their drinking even when it becomes the underlying cause of serious harm, including medical disorders, marital difficulties, job loss, or automobile crashes. Medical science has yet to identify the exact cause of alcoholism, but research suggests that genetic, psychological, and social factors influence its development. Alcoholics develop a craving, or a strong urge, to drink despite being aware that drinking is creating problems in their lives.

The World Health Organization estimates that in the United States nearly 15 million people experience problems related to their use of alcohol. Men are three times more likely than women to become alcoholics; people 65 and older have the lowest rates of alcohol dependence.

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Addiction

Addictive behaviors are broadly characterized by a number of features including an intense desire to satisfy a need, a loss of control over the substance or behavior, compulsive thoughts about the substance or behavior, and engaging in the behavior despite negative consequences. Similarities in maladaptive cognitive behavior patterns between problematic gamblers and those diagnosed with substance dependence are striking. In fact, pathological gambling has been described as an “addiction without the drug.” Those with pathological gambling may even undergo withdrawal symptoms such as irritability and agitation. Additionally, as can be the case for addictions involving a substance, the pathological gambler’s preoccupation with their addiction (gambling) can lead to the abandonment of other interests and to negative social and occupational consequences.

Common Processes Underlying Urges and Rewards

The repetitive use of alcohol or engaging in gambling following an urge may reflect an underlying biological mechanism for “urge-based” disorders involving the processing of incoming reward inputs by a specific brain system. In fact, researchers theorize that dysregulation in the systems supporting the activities of dopamine and the neurotransmitter serotonin may be central in both alcoholism and pathological gambling.

Sixty four percent of the co-occurrence between pathological gambling and alcoholism appears to be attributable to genes that influence both disorders simultaneously. Similarly, studies on families have also found that participants with pathological gambling tended to have first-degree relatives with alcoholism.

Treatment

Various non-medical treatment modalities that are effective in treating alcoholism are also useful in treating pathological gambling (e.g. 12-step approaches and cognitive behavioral therapies). In addition, several influential psychosocial interventions for both conditions rely on a relapse-prevention model. This model encourages abstinence by identifying patterns of abuse, learning to avoid or cope with high-risk situations, and making lifestyle changes that reinforce activities not related to the negative behavior.

Researchers have only recently started to explore pharmacological treatment approaches for pathological gambling. Several studies have shown promising results for the efficacy of selective serotonin reuptake inhibitors (medications that affect the production and/or absorption of serotonin) in the treatment of pathological gambling. Also, naltrexone, which blocks the action of the opioids, has been effective in reducing the frequency and amount of drinking in patients with alcoholism. Studies evaluating the efficacy of naltrexone in the treatment of pathological gambling have also demonstrated benefits in reducing gambling urges.

Gambling while drinking is common. Evidence suggests that alcohol use can adversely affect cognitive processes, leading to poor judgment and increased risk-taking. Alcohol might also increase risk-taking by restricting attention to only the most salient and immediate cues, leading to less regard for the actual odds of a gamble and disregard for past gambling losses.
Alcoholics and Pathological Gambling

There is evidence that disordered gambling behavior and alcohol abuse or alcoholism co-occur in U.S. residents at a rate exceeding that expected by chance. Studies of treatment populations have found an increased risk of pathological gambling in alcoholism treatment patients and an increased risk for alcoholism in pathological gambling treatment patients.

A study conducted in the United States found that 44 percent of those with disordered gambling behavior also report a lifetime history of alcoholism. These studies reported that as gambling severity increased, so did the risk for alcohol abuse. Similarly, 26 percent of community-based respondents diagnosed with disordered gambling behavior reported having experienced alcohol abuse or some other substance use disorder at some point during their lifetime. These survey findings indicate that, in general populations, the risk for alcoholism is two to four times higher for pathological gamblers.

Co-occurrence of pathological gambling and alcoholism is increasingly seen among people undergoing addiction treatment. Researchers have estimated that 20 percent of patients undergoing substance abuse treatment also have problems with gambling. Conversely, a recent study found that 23 percent of pathological gambling patients suffered from alcoholism. These findings reveal a substantial association between these addictive disorders and suggest that having one of them probably increases the risk for having the other.

Variables

Surveys estimate that approximately two-thirds of pathological gamblers are men. It is also well known that men are substantially more likely than women to develop alcoholism.

Recent studies have shown that people with attention deficit hyperactivity disorder (ADHD) are at an increased risk for developing a substance use disorder. In addition, studies show that pathological gamblers have an increased prevalence rate of co-morbid ADHD.

Studies have also examined whether rates of pathological gambling differ among racial or ethnic groups. For example, some research has shown higher rates of pathological gambling among Native Americans in alcoholism treatment compared with Caucasians. Another study found a higher proportion of African-Americans represented among problem gamblers (31 percent) than among non-problem gamblers (15 percent).

Temporal and Causal Relationships

Further complicating the picture, alcohol use may disinhibit a wide range of inappropriate behaviors including problematic gambling or, following alcoholism treatment, a new onset of pathological gambling may occur as a substitute for drinking following alcoholism treatment. One of the few studies to examine the temporal pattern of the onset of pathological gambling and alcoholism reported that pathological gambling began in 56 percent to 68 percent of the cases after nicotine, alcohol, and cannabis dependence.
Another possible association between pathological gambling and alcohol use disorders is that pathological gambling may promote alcohol use/abuse. Frequent gamblers self-administer more alcohol in a simulated gambling situation than matched study participants who were engaged in a control activity.

**Treatment Implications**

Treatment of either alcoholism or pathological gambling could be complicated or even compromised by the presence of the other related condition. Treating one disorder alone may not be effective if the second disorder is exerting or maintaining a causal influence on the treated condition. Even in the more likely case where alcoholism and pathological gambling are associated via the influence of a third variable that can promote both disorders, treating one but not the other condition would be potentially problematic. More intense treatment may be required for such patients dually diagnosed because they are likely to have more functional impairment and a poorer prognosis.

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