



Similarities and Differences: Gambling and Substance Use Disorders



UCLA GAMBLING STUDIES PROGRAM



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Gambling disorder is classified as a behavioral addiction in the bible of psychiatry² in the same section as drug and alcohol use disorders. Not surprisingly, there are many similarities between addiction to alcohol or drugs and an addiction to gambling. However, there are also some distinct differences that distinguish problem gambling from substance use disorders. First, let's start with some of the similarities.

Similarities

1. Individuals with gambling problems or substance use disorders both report difficulties reducing, limiting, or abstaining from their behaviors. Both talk about difficulties controlling their choices and feeling powerless to stop. Interestingly, some individuals who have previously struggled with drug or alcohol addictions say their gambling addiction is more difficult to give up than their prior addiction to substances.
2. Individuals with gambling and substance use disorders are often preoccupied with their behavior. They relive past experiences or spend time thinking about their substance or activity of choice, or how to get money to engage in their behaviors. As a result, more time is also spent recovering from the effects of their addictive behavior including the recovery of financial losses. They may feel

¹ Correspondence regarding this article: Dr Rory Reid

² American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*

exhausted after getting high or spending all night gambling and then feeling sleep deprived or exhausted.

3. Individuals in both groups often deny or minimize the extent of their addictive behaviors. They find excuses or explanations to rationalize their behavior. In essence, if they can convince themselves or others their behavior isn't a problem, then they can continue to engage in their addiction.
4. Individuals in both groups often report patterns of escalation in their addiction. This can involve spending more time, more money, or ingesting more of their substance or activity of choice, be it gambling, drugs, or alcohol. This progression occurs because the brain becomes desensitized or numb to the excitement, thrill, or euphoria of the high and needs something more to get the same effect. In some cases, the progression occurs as people feel even more discouraged or hopeless and develop a careless attitude toward their own well-being. This in turn, leads to a downward spiral where they become consumed in their addictive behaviors.
5. Individuals in both groups report patterns of withdrawal when they do not have access to their substance or to gambling. Common symptoms of withdrawal can be physical or psychological and vary widely across classes of substances and among problem gamblers. Withdrawal symptoms in both groups can include restlessness, irritability, anxiety, anger, sleeping difficulties, depressed mood, or difficulties concentrating.
6. Individuals with gambling problems or substance use disorders often engage in their addiction to escape or avoid a wide range of painful or intolerable emotions or stressful experiences. Unpleasant feelings can include anxiety, depression, boredom, rejection, shame, guilt, loneliness, powerlessness, trauma, helplessness, or anger to name a few. Stressful feelings leading to addictive behaviors are common in both groups. Stress typically results from the perception that one is unable to cope with the demands in their life. This can include the demands of work, being in a relationship, pursuing an education, fulfilling obligations, poor physical health, or financial difficulties. Because gambling and substances can both create a temporary "mood altering experience", people turn to their addictions to escape or avoid feeling these uncomfortable emotions or stressful experiences.
7. Individuals in both groups engage in risk-taking behavior and patterns of impaired decision making. These tendencies can precede the addictive behaviors and often perpetuate the addictive behaviors.
8. Individuals in both groups jeopardize careers, education, family, friends, and loved ones to pursue their addictive behaviors.
9. Individuals in both groups continue to engage in their addictive behaviors despite negative consequences that contribute to pain, suffering, and significant losses. These consequences can extend to family members and loved ones who are also negatively impacted by the addictive behaviors.
10. Individuals in both groups often neglect self-care, leading to poor nutrition, sedentary lifestyles lacking physical activity, and insufficient sleep.

11. Cravings are common among individuals in both groups. Many individuals experience mild to severe cravings. One problem gambler described these urges stating, "It's like an itch that I can ignore for a little while but eventually it gets more intense until I have to scratch it."
12. Individuals with gambling and/or substance use disorders find abstaining difficult and report frequent relapses. Multiple unsuccessful efforts to stop addictive behaviors can contribute to feelings of hopelessness and despair.
13. Individuals in both groups often have co-occurring mental health disorders or similar psychological characteristics. Anxiety, depression, ADHD, and histories of trauma are common in both groups. Gamblers and people with substance use disorders often report characteristics of shame, impulsivity, interpersonal sensitivity, distrust, loneliness, stress proneness, excitement-seeking, and boredom.
14. Individuals in both groups report engaging in criminal activity to sustain their addictive behaviors. Illegal activities may pay for the individual's addiction including crimes such as embezzlement, theft, forgery, or robbery. The addictive behavior itself may be illegal as some forms of gambling are legal while others are not. Some substances such as tobacco or alcohol are legal while many drugs are not. People in both groups have turned to prostitution or selling drugs in order to get money for their addictive behaviors.
15. Individuals in both groups turn to friends, family, colleagues, or others for 'bailouts.' Even in cases where promises to change at the time of crisis are genuine, individuals fail to follow through with their commitment, and return to their addictive behavior.
16. Individuals in both groups report a "high" from their addictive behaviors. Research has shown that gambling and substance use activate similar pleasure reward pathways in the brain, which was one of the reasons that gambling disorder was moved to the addictive disorders section of DSM-5 from its former classification as an impulse control disorder in DSM-IV-TR.
17. Neuroscience studies suggest dysfunction involving similar brain regions are associated with problem gambling and substance use disorders. These deficits, sometimes referred to as executive dysfunction, can include problems paying attention, remembering information, multi-tasking, planning, organizing, goal-directed action, self-monitoring, regulating emotions, delaying gratification.
18. Suicide is a risk factor in both groups. Risks can range from thinking about suicide, planning a way to die, suicide attempts, and completion of suicide. For gamblers, suicide risk may be accentuated after experiencing a big loss.

Given the vast array of similarities, it is not surprising the American Psychiatric Association has classified gambling disorder as an addiction in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). This manual is used by health care providers to diagnose mental health disorders. However, there are also some distinct differences that distinguish problem gambling from substance use disorders.

Differences

1. Unlike substance use disorders, gambling disorder is often described as a “hidden” or “invisible” addiction because there are no outward physiological signs, no slurred speech, dilated pupils, impaired movement, hangovers, or smell of the substance on breath.
2. Gambling does not require the ingestion of a “substance” into the body to acquire a “high.”
3. People who abuse drugs and alcohol can blame the “substance” for their behavior whereas gamblers do not have this excuse or explanation (which may leave gamblers feeling more confused or shameful about their behavior).
4. Handicapping, the practice of determining advantage through various calculations, researching odds, point spreads, etc... is a component of gambling that doesn't have an analog in substance use disorders.
5. Chasing behaviors are unique to gambling. These behaviors are often motivated by the belief that one can get even by recouping losses, thus negating debts or guilt about gambling activities.
6. Substance users are seeking temporary relief and have no illusion that using drugs or alcohol will produce positive, long-lasting effects. Gamblers may hope for a “big win” or spectacular success that will solve financial problems or transform their lives.
7. Claims of becoming a professional gambler may be socially acceptable and even rationalized among problem gamblers whereas it would be socially inappropriate to pursue being a “professional” alcoholic or drug user.
8. Gambling disorder requires a lot more symptoms, four out of nine, to meet the required threshold to be a diagnosable psychiatric condition. Substance use disorders only require two out of eleven symptoms to reach the diagnostic threshold. Consequently, gambling disorder may be closer to meeting criteria for an addiction. One can be diagnosed with a substance use disorder because one drove under the influence, or had an argument with a family member about one's drinking or drug use, without having any of the essential features listed in the introduction to the section on substance use disorders. This can also have implications for receiving services as a gambler is required to have a greater number of symptoms or consequences to have healthcare insurance pay for treatment.
9. Several FDA-approved medications exist for treating substance use disorders but there are no FDA-approved medications for gambling disorder.
10. People who abuse drugs or alcohol typically know what to expect from their drug, how long it will last, the kind of high or effect they will have, and what coming down will be like. Gamblers have a less reliable experience with gambling that involves more ambiguity, not knowing whether they will win or lose, how long it will take, how much money will be involved, or how intense the experience will be.

11. Alcohol and drugs have more direct medical consequences and biological mechanisms that explain the addictive behavior based on a medical model. This may reduce the stigma in ways that are not so available, or at least not so clear, for the gambler.
12. On average, individuals with gambling problems have higher levels of financial distress compared to those with substance use disorders. While both groups deplete financial resources for their addiction, gambling requires money or something of value whereas those with substance use disorders can find alternative ways to acquire drugs or alcohol. Also, because gamblers have a hidden addiction, they may be able to borrow money from friends, family, or other sources without people knowing the money is for their addiction.
13. Long term consequences may vary. An alcoholic may develop liver disease or a chronic user of meth may have damaged their teeth and require dental work for “meth mouth” or endocarditis from unclean injections whereas the gambler may have to work two jobs for years to compensate for financial losses or other debt obligations.
14. Gambling behavior is positively reinforced in a different way than substance use disorders. Substance use is generally continuously reinforced (although the value or magnitude may vary in the intensity of the ‘high’ depending on the drug). However, gambling, especially on electronic gaming machines, often has a random intermittent ratio of reinforcement which psychologists suggest can make it more addictive.
15. Problem gambling has no saturation point as you can’t ‘overdose’ so people can gamble until all their money is gone or their credit limits have reached the maximum amount.
16. People can overdose on substances causing death whereas excessive gambling does not result in such fatalities from the behavior itself.
17. Withdrawal from addiction to some substances can lead to seizures or death whereas sudden abstinence from gambling will not cause life-threatening danger.
18. There is less societal support for helping people with gambling problems compared to those with substance use disorders. Subsequently, there is less public understanding of the disorder and significantly less funds are allocated to helping people with gambling problems compared to substance use disorders. Overall, fewer government grants are available for research, prevention, or treatment services for problem gamblers.

Summary

Understanding similarities and differences between gambling and substance use disorders can have implications for research investigating the neurobiological substrates of these disorders and suggests they may have common underlying pathways in their development, onset, and course in the lives of those negatively impacted. The points outlined in this article may also have relevance for treatment. Specifically, understanding the similarities may provide insight about appropriate treatments that may be applicable for both disorders. Conversely, understanding the differences may inform healthcare providers about issues they need to treat in unique ways for each disorder.

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Similarities

- Inability to reduce or stop
- Preoccupation with gambling/substance
- Denial or minimizing the problem
- Progression, patterns of escalation
- Patterns of a “high” or “mood altering experience” related to addictive behavior
- Patterns of withdrawal (although symptoms of withdrawal will manifest differently)
- Escaping unpleasant emotions or stress
- Co-occurring disorders such as depression, ADHD, anxiety, and similar traits such as shame, impulsivity
- Impaired decision making, poor judgement, risk-taking behavior
- Persistence despite negative consequences
- Reoccurring cravings and activation of pleasure reward pathways in the brain
- Relapse in recovery is common
- Both populations may commit crimes related to their disorder
- Jeopardize careers, education, family, friends, and loved ones
- Neglect self-care related to nutrition, physical activity, and sleep hygiene
- Turning to family/friend for bailouts
- Neuroscience studies suggest dysfunction involving similar brain regions (e.g. executive deficits and dysfunction)
- Behaviorally conditioned with positive reinforcement (pleasure, reward)
- Consequences of addiction extend to family members and loved ones who are negatively impacted
- Suicide is a risk factor in both populations

Differences

- Gambling is an invisible or hidden disorder, no outward physiological signs, no slurred speech, dilated pupils, impaired psychomotor functioning, hangover, or smell of the substance on breath
- Gambling requires no ingestion of a ‘substance’ to acquire a ‘high’
- Gamblers can be preoccupied with handicapping
- Fewer resources are allocated to gambling problems, fewer grants available for research, fewer prevention, or treatment services
- ‘Chasing’ behaviors unique to problem gambling
- Gamblers seeking a “big win” from their ‘drug’ whereas people do not believe drugs/alcohol will provide a lasting solution to their problems
- Clearer link between substance and medical model
- Gamblers ‘drug’ is less reliable with more uncertainty
- Higher levels of financial distress for gambling
- Gambling disorder has no FDA-approved pharmacological medications for treatment
- Easier for drug/alcohol abusers to blame “substance” for their behavior or poor judgement whereas gamblers do not have this excuse
- Difference long term consequences, often more financial issues for gamblers and health problems for those with substance use disorders
- Gambling has different reinforcement schedules insofar as drug use is generally continuously reinforced (although value or magnitude may vary in rewarding salience of drug). Gambling typically has a random, intermittent ratio of reinforcement
- Problem gambling has no saturation point, you can’t ‘overdose’, and individuals can gamble excessively until money is gone. Conversely, excessive use of substances can cause overdose and lead to death
- Acute withdrawal from some substances can result in seizures or death whereas sudden abstinence from gambling does not result in such fatalities from the ‘behavior’ itself
- Claims of becoming a professional gambler may be socially acceptable and rationalized in problem gambling whereas it is considered inappropriate to be a ‘professional’ alcohol or drug user
- Gambling disorder has a higher diagnostic threshold requiring 4/9 symptoms compared to 2/11 for substance use disorders