Reviewing Two Types of Addiction – Pathological Gambling and Substance Use

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ABSTRACT

Gambling, including pathological gambling and problem gambling, has received increased attention from clinicians and researchers over the past three decades since gambling opportunities have expanded around the world. Gambling disorders affect 0.2–5.3% of adults worldwide, although measurement and prevalence varies according to the screening instruments and methods used, and availability and accessibility of gambling opportunities. Several distinct treatment approaches have been favorably evaluated, such as cognitive behavioral and brief treatment models and pharmacological interventions. Although promising, family therapy and support from Gamblers Anonymous are less well empirically supported. Gambling disorders are highly comorbid with other mental health and substance use disorders, and a further understanding is needed of both the causes and treatment implications of this disorder. This article reviews definition, causes and associated features with substance abuse, screening and diagnosis, and treatment approaches.

Key words: Addiction, gambling, substance use

INTRODUCTION

This paper offers a balanced review of major contemporary perspectives on substance abuse and gambling. This paper should be of great assistance to the reader in developing the multidisciplinary foundation that is unique to the addictive behaviors such as gambling and substance use and treatment fields. We do hope that students and in-service professionals find the review of theory and research to be provocative enough to cause them to reconsider their conceptions of gambling and substance use. This paper should serve to strengthen understanding of divers theoretical perspectives on addictive behavior such as gambling and substance use in helping communities and individuals effectively address these problems.

DEFINITIONS OF GAMBLING

Wildman\(^1\) suggests that the important thing to remember about gambling is that it is “a conscious, deliberate effort to stake valuables, usually but not always currency, on how some event happens to turn out.”

There are also “quasi-gambling” activities, such as stock market and real estate investments that can be used as opportunities to gamble, and so must be counted in any survey of gambling activity. How often a person is involved as well as the sum of money involved may be used as a rough criterion for considering an activity as “gambling.” It has also been suggested that unless there is some sort of excitement or thrill involved in the pursuit of an activity, it probably is not gambling.
Some people, for instance, do not consider buying lottery tickets or raffle tickets for charitable purposes as gambling, and yet there is clearly some anticipation or excitement involved in the purchase of these tickets, whether or not a large amount of money or time is invested in their purchase. A combination of excitement and level of involvement is perhaps the best means to determine what is or is not gambling. The limits of what is considered “gambling” behaviour have shaped the definitions of “problem” gambling that are used, and how problem gambling is measured. Wildman[1] provided a useful summary of the theories that explain why people gamble [Table 1]. All of these explanations are intended to treat people affected by problem gambling. For those who believe that gambling was an important behaviour in human evolution, as well as for those who look at gambling as a generator of excitement and stimulation, the biological school of thought on problem gambling suggests that there are genetic predispositions toward gambling — problem gambling in particular. Thus, measurable chemical changes occur in someone who either has this predisposition, or who develops problem gambling behaviour. Medical treatment is necessary in these cases.

A more behavioral approach to gambling and problem gambling believes these behaviors derive from social learning, either as a focus of socialization, or a result of reinforcement. This approach also encompasses the personification of luck, and other superstitious forms of thinking often seen in social and people affected by problem gambling, a manifestation of “primitive magical or religious ceremonies” [Table 1]. Cognitive behavioural treatment approaches are the logical approach if gambling behaviour is seen as linked to specific environments or subject to specific triggers.

Those who see gambling as a rational behaviour might be more likely to suggest that gamblers a) see that gambling is strictly for fun, or b) feel that they can make a profit at it. Cognitive behavioural approaches to gambling problems are also the most likely means of treatment for those who see gambling as a rational behaviour. Teaching gamblers the odds of their favorite games often changes their belief that gambling can be profitable. However, none of the explanations for gambling behaviour outlined in the table above provide an appropriate rationale as to why some gamblers develop gambling problems. For that, we need to look at a multi-dimensional approach. For instance, Wildman suggests that all of these explanations may be present, to varying degrees, in the same individual.

**GAMBLING ADDICTION**

Problem gambling is an urge to gamble despite harmful negative consequences or a desire to stop. The term is preferred to compulsive gambling among many professionals, as few people described by the term experience true compulsions in the clinical sense of the word. Problem gambling often is defined by whether harm is experienced by the gambler or others, rather than by the gambler’s behavior. Severe problem gambling may be diagnosed as clinical pathological gambling if the gambler meets certain criteria.

Problem gambling has most often been conceptualized and defined in the past as an addiction or medical problem, because this was a familiar framework for both policy makers and clinicians, and because of the surface similarities between gambling problems and alcohol and other drug problems. Rosenthal’s[12] definition is perhaps the best place to start in terms of defining problem gambling, because it is broadly accepted by psychiatrists, many psychologists, and Gamblers Anonymous members, and is also the foundation for the influential Diagnostic and Statistical Manual’s criteria for problem gambling:

A progressive disorder characterized by a continuous or periodic loss of control over gambling; a preoccupation with gambling and with obtaining money with which to gamble; irrational thinking; and a continuation of the behaviour despite adverse consequences.

This definition, like the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria, is behaviorally based, and sees gambling as a disorder that one either has or does not have. It captures most of the important behaviors that are seen with severe problem gambling, but only indirectly includes the consequences of gambling. Of course, it is because of the consequences that most gamblers end up in treatment. In addition, by calling gambling a “disorder” the definition suggests that those who have gambling problems are in some qualitative way different from those who do not. The literature suggests that this is not true.

**PATHOLOGICAL GAMBLING**

Extreme cases of problem gambling may cross over into
the realm of mental disorders. Pathological gambling was recognized as a psychiatric disorder in the DSM-III, but the criteria were significantly reworked based on large-scale studies and statistical methods for the DSM-IV. As defined by American Psychiatric Association, pathological gambling is an impulse control disorder that is a chronic and progressive mental illness.

Pathological gambling is now defined as persistent and recurrent maladaptive gambling behavior meeting at least five of the following criteria, as long as these behaviors are not better explained by a manic episode:

1. Preoccupation. The subject has frequent thoughts about gambling experiences, whether past, future, or fantasy
2. Tolerance. As with drug tolerance, the subject requires larger or more frequent wagers to experience the same “rush”
3. Withdrawal. Restlessness or irritability associated with attempts to cease or reduce gambling
4. Escape. The subject gambles to improve mood or escape problems
5. Chasing. The subject tries to win back gambling losses with more gambling
6. Lying. The subject tries to hide the extent of his or her gambling by lying to family, friends, or therapists
7. Loss of control. The subject has unsuccessfully attempted to reduce gambling
8. Illegal acts. The subject has broken the law in order to obtain gambling money or recover gambling losses
9. Risked significant relationship. The subject gambles despite risking or losing a relationship, job, or other significant opportunity
10. Bailout. The subject turns to family, friends, or another third party for financial assistance as a result of gambling
11. Biological bases. The subject has a lack of norepinephrine.

As with many disorders, the DSM-IV definition of pathological gambling is widely accepted and used as a basis for research and clinical practice internationally.

BIOLICAL BASES

According to the Illinois Institute for Addiction Recovery Recent evidence indicates that pathological gambling is an addiction similar to chemical addiction. It has been seen that some pathological gamblers have lower levels of norepinephrine than normal gamblers.

According to a study conducted by Alec Roy, M.D. formerly at the National Institute on Alcohol Abuse and Alcoholism, norepinephrine is secreted under stress, arousal, or thrill, so pathological gamblers gamble to make up for their under dosage.

Further to this, according to a report from the Harvard Medical School Division on Addictions there was an experiment constructed where test subjects were presented with situations where they could win, lose or break even in a casino-like environment. Subjects’ reactions were measured using functional magnetic resonance imaging (fMRI), a neuron-imaging device similar to a magnetic resonance imaging (MRI). And according to Hans Breiter, MD, co-director of the motivation and Emotion Neuroscience Centre at the Massachusetts General Hospital, “Monetary reward in a gambling-like experiment produces brain activation very similar to that observed in a cocaine addict receiving an infusion of cocaine.”

Deficiencies in serotonin might also contribute to compulsive behavior, including a gambling addiction.

RELATION TO OTHER PROBLEMS

As debts build up people turn to other sources of money such as theft, or the sale of drugs. A lot of this pressure comes from bookies or loan sharks that people rely on for capital to gamble with. Also, a teenager that does not receive treatment for pathological gambling when in their desperation phase is likely to contemplate suicide. A total of 20% of teenagers that are pathological gamblers do consider suicide. This according to the article High Stakes: Teens Gambling with Their Futures by Laura Paul.

Abuse is also common in homes where pathological gambling is present. Growing up in such a situation leads to improper emotional development and increased risk of falling prey to problem gambling behavior. Pathological gambling is similar to many other impulse control disorders such as kleptomania, pyromania, and trichotillomania. Other mental diseases that also exhibit impulse control disorder include such mental disorders as antisocial personality disorder or schizophrenia.

PREVALENCE

According to a variety of sources, the prevalence (i.e., extent of existing cases) of problem gambling is 2-3% and pathological gambling is 1% in the United States, though this may vary by country. By contrast, about 86% of Americans have gambled during their lives and 60% gamble in a given year. Interestingly, despite the widespread growth in gambling availability and the increase in lifetime gambling during that past 25 years, past year problem gambling has remained steady.
Currently, there is little evidence on the incidence of problem gambling (i.e., new cases).

Available research seems to indicate that problem gambling is an internal tendency, and that problem gamblers will tend to risk money on whatever game is available, rather than a particular game being available inducing problem gambling in otherwise “normal” individuals. However, research also indicates that problem gamblers tend to risk money on fast-paced games. Thus, a problem gambler is much more likely to lose a lot of money on poker or slot machines, where rounds end quickly and there is a constant temptation to play again or increase bets, as opposed to a state lottery where the gambler must wait until the next drawing to see results.

Dopamine agonists, in particular pramipexole (Mirapex), have been implicated in the development of compulsive gambling and other excessive behavior patterns (e.g., PMID 16009751).

**GAMBLING AND SUBSTANCE ABUSE: A COMPARISON**

Gambling is commonly thought of as an addiction, even though it is not included with other addictions in the DSM-IV[13] in describing diagnostic categories for problems related to alcohol and other drugs, the DSM-IV uses the term substance-related disorders, which includes, among others, alcohol, amphetamines and caffeine. Gambling problems are referred to as pathological gambling, which is listed as one of six disorders under impulse-control disorders.

The DSM-IV recognizes two levels of severity with the substance-related disorders—substance dependence and substance abuse. Substance dependence is distinguished from substance abuse by several diagnostic criteria, the most significant difference being that the presence of tolerance and withdrawal are required for a diagnosis of dependence. If tolerance and/or withdrawal are present, a diagnosis of abuse cannot be made. In comparison, only one level of problem severity is considered for gambling—pathological gambling.

A review of the diagnostic criteria of these disorders suggests some similarity between them. Substance dependence is described as “a maladaptive pattern of substance use, leading to clinically significant impairment or distress.” The DSM-IV then itemizes seven diagnostic criteria, of which at least three need to be present during a 12-month period to warrant a diagnosis of substance dependence. The same definition is used for substance abuse, with only one diagnostic criterion needing to be present during a 12-month period to warrant the diagnosis. However, it is essential to note that although the description for abuse is the same as dependence, the diagnostic criteria are much different. Most notably, the criteria of tolerance and withdrawal, which are included in the criteria for dependence, are absent in the diagnostic criteria for abuse.

Pathological gambling is described as “persistent and recurrent maladaptive gambling behaviour,” similar to the description for substance dependence and abuse. There are 10 diagnostic criteria, of which at least five need to be present to warrant a diagnosis of pathological gambling. The criteria are worded in the present tense, suggesting that the criteria need to be present at the time of the diagnostic interview to warrant the diagnosis.

An examination of the respective diagnostic criteria indicates a similarity between the disorders. For example, two of the criteria for substance dependence are tolerance and withdrawal; two concepts most commonly associated with the ingestion of a substance, like alcohol or other drugs. Tolerance in relation to substance dependence is described as a need for markedly increased amounts of the substance to achieve intoxication or desired effect. One of the criteria for pathological gambling is a need to gamble with increasing amounts of money in order to achieve the desired excitement. This is quite similar to the definition of tolerance.

Similarly, the concept of withdrawal, described in the criteria for substance dependence as “the development of a substance-specific syndrome due to the cessation or reduction in substance use that has been heavy and prolonged,” is also identified as a criterion for pathological gambling. It is not labeled as withdrawal, but is described as being restless or irritable when attempting to cut down or stop gambling.

Another criterion for substance dependence includes “a persistent desire or unsuccessful efforts to cut down or control substance use.” Pathological gambling involves “...repeated unsuccessful efforts to control, cut back, or stop gambling.”

Additional similarities include the presence of preoccupation, compromising social, occupational or recreational activities and legal problems (which are not included in the criteria for dependence).

The criteria depart in only two areas of diagnosis. Substance dependence includes a criterion that refers to the substance use continuing despite the individual knowing that continued use of the substance is likely to result in recurrent physical or psychological
problems. The criteria for pathological gambling do not address this issue. On the other hand, the criteria for pathological gambling emphasize the negative impact on family and friends in three criteria, while impact on others is not addressed in the criteria for substance dependence.

It is not clear why pathological gambling is positioned with impulse control disorders in the DSM-IV, since there appears to be more similarities between pathological gambling and substance-related disorders than there are between pathological gambling and impulse-control disorders, at least in terms of their diagnostic criteria.

In a more general sense, Marlatt et al. defined addictive behaviour as:

A repetitive habit pattern that increases the risk of disease and/or associate personal and social problems. Addictive behaviors are often experienced subjectively as “loss of control” — the behaviour contrives to occur despite volitional attempts to abstain or moderate use. These habit patterns are typically characterized by immediate gratification, often coupled with delayed, deleterious effects. Attempts to change an addictive behaviour (via treatment or self initiation) are typically marked with high relapse rates.[14]

From Marlatt’s definition, gambling and substance disorders share a number of addictive behaviour characteristics, again suggesting a phenomenological similarity.

Many similarities exist in terms of how substance dependence/abuse and pathological gambling are treated. Professional and self-help interventions are available for both disorders. The concept of matching the individual to the appropriate professional or self-help (or both) intervention appears to be an important factor in determining outcomes for both disorders. Substance dependence treatment relies more on residential services, including withdrawal management and treatment, than does pathological gambling. Medical intervention is likely more frequently required for individuals with substance dependence.

There is a similar range of therapeutic modalities and orientations available for both disorders, including individual, group and family modalities, as well as cognitive-behavioral and psychodynamic approaches.

Substance abuse and gambling share a common controversy in treatment planning: Abstinence vs. reduced use/gambling as a treatment goal. The scientific research and ideological argument on substance dependency and abuse has been well documented. Far less research has been done into the viability of goals of reduced gambling, but the ideological argument for and against abstinence/reduced goals has been imported from the substance abuse literature into the gambling literature. It remains a contentious issue in both fields.

Both disorders are recognized to have potentially serious deleterious effects on family members. Recent literature on children of alcoholics identifies the developmental, interpersonal, and emotional issues involved in a family where there is a parent with a substance dependency or abuse problem. Studies on children of pathological gamblers have found increased health-threatening behaviors (such as smoking, overeating, substance abuse, gambling), dysphoria, and deficits in functioning.[15]

One significant difference between the two disorders is that problem gambling is recognized as a more cognitively based disorder than substance dependence or abuse. Most researchers[16] have concluded that excessive gamblers characteristically demonstrate core cognitive distortions in their belief systems about their ability to win at gambling. These beliefs can persist even when the gambler continues to lose at gambling. It is essential to assess the gambler’s beliefs about his or her ability to win. Some gamblers also have cognitive distortions not only about their ability to win, but also their need for excitement, and a correlating distorted belief that they will not be able to function without the excitement that they derive from gambling. Cognitive therapy is required to identify, challenge, and modify cognitive distortions, or relapse to gambling is likely (because the gambler believes that he or she is going to win if he or she gambles). Other interventions may be appropriate and effective (e.g., behavioural therapy, family therapy, impulse control training, etc.), but cognitive assessment and therapy will be a cornerstone of the treatment plan.

Substance abuse may involve minimizing one’s use, and an underestimation of the effect one’s use has on life areas as well as family members may be evident. However, these characteristics are typically interpreted as defense mechanisms (unconscious attempts to deal with what are perceived as attacks against one’s ego, or self), rather than, as in problem gambling, cognitive distortions in one’s belief system — misinterpreting the outcomes and cause-effect relationships involved in gambling.

Another aspect of treatment planning, and treatment where the two disorders vary distinctly, is in relation to the gambler’s financial situation. Treatment for pathological gambling typically includes a major focus
on financial assessment, which includes issues like access to cash; cheque control, credit card control, debt resolution strategies, and financial planning (refer to Section 5.2, “Finances and the Gambling Client”). A financial crisis is often the issue that prompts a gambler to seek counseling. Because many gamblers are heavily indebted, attempting to deal with indebtedness by returning to gambling to win money (a cognitive distortion) can be a relapse factor if their financial crisis is not addressed and managed appropriately. It is not uncommon, particularly in the early stages of counseling, to suggest that the gambler surrender access and control of financial matters to his spouse, or another trusted person, as a preventive measure. Preventing or reducing access to money (and therefore eliminating the means to gamble) is considered good practice.

Counselors must be completely comfortable discussing money management with clients, including incomes, net worth, financial liabilities (credit cards, mortgage, loans), and budgeting. This requires not only the knowledge to advise the client on these matters (or to refer them), but also being psychologically comfortable doing so.

Clients with substance abuse problems may also have some financial pressures related to the cost of their use, but money and financial issues do not take a central role in the treatment plan as they do with counseling gamblers. For many counselors not accustomed to working with gamblers, this approach may represent a dramatic departure from how they might typically counsel alcohol- and drug-using clients. Accepting and dealing with the integral role of financial matters with gambling clients may require professional development for the substance abuse counselor.

**TREATMENTS OF GAMBLING ADDICTION**

Every gambler is unique and so needs a recovery program tailored specifically to him or her. What works for one gambler will not necessarily work for you. The biggest step in treatment is realizing you have a problem with gambling. It takes tremendous strength and courage to own up to this, especially if you have lost a lot of money and strained or broken relationships along the way. Do not despair and do not try to go it alone. Many others have been in your shoes and have been able to break the habit.

**Gambler’s anonymous**

Is a twelve-step recovery program patterned after Alcoholics Anonymous. A key part of a 12-step program is choosing a sponsor. A sponsor is a former gambler who has time and experience remaining free from addiction and can often provide invaluable guidance and support.

**Cognitive-behavioral therapy**

Cognitive-behavioral therapy (CBT) for problem gambling focuses on changing unhealthy gambling behaviors and thoughts, such as rationalizations and false beliefs. It also teaches problem gamblers how to fight gambling urges, deal with uncomfortable emotions rather than escapes through gambling, and solve financial, work, and relationship problems caused by the addiction. The goal of treatment is to “rewire” the addicted brain by thinking about gambling in a new way. A variation of cognitive behavioral therapy, called the four steps program, has been used in treatment of compulsive gambling as well. The goal is to change your thoughts and beliefs about gambling in four steps; re-label, re-attribute, refocus, and revalue.

What is cognitive behavioral therapy? CBT is a form of psychotherapy that emphasizes the role of thinking in how we feel and in what we do. There are actually several different types of CBT, but what they are is not as important as what they can do. Each of them is time-limited. That is, they do not last forever. Patients do not continue to go for CBT sessions for years like they would for traditional psychotherapy. Instead, they take place for a certain period of time, usually about 16 sessions. CBT is a collaborative process between the therapist and the patient. It is based on the idea that our thoughts cause our feelings and behaviors, and not external people, places, and things. The benefit of getting CBT is that patients/clients can change the way that they think to feel and/or act better – even if the situation does not change. Table 2 describes some reasons for gambling and offers some solutions to avoid or control gambling.

Compulsive and problem gamblers often need the support of their family and friends to help them in their struggle.
to stop gambling. But the decision to quit has to be theirs. As much as you may want to, and as hard as it is seeing the effects, you cannot make someone stop gambling.

If a family member has a gambling problem, other members of family may have many conflicting emotions. They may try to cover up for a loved one or spend a lot of time and energy trying to keep him or her from gambling. At the same time, they might be furious at their loved one for gambling again and tired of trying to keep up the charade. The gambler may also have borrowed (or even stolen) money from other family members with no way to pay it back. He or she may have sold family possessions or run up huge debts on joint credit cards. When faced with the consequences of their actions, a gambler can suffer a crushing drop in self-esteem. This is one reason why there is a high rate of suicide among problem gamblers.

When someone has an addiction problem the best thing is, of course, that he comes out of that situation himself. However, this requires a lot of self-discipline and motivation from the gambler. If he can’t do it on his own, there are several possibilities to get help. But in this case too, the success of the treatment depends on the motivation of the gambler to handle the addiction. In the first place, there are self-help groups run by Gambling Anonymous (GA). They work more or less the same way as the Alcohol Anonymous groups (AA). The basic thought of these groups is that you have an addiction problem and will always have an addiction problem, even if you never drink alcohol again or do not gamble anymore. The only thing you can do is to stop gambling because you will never be able to deal with the pleasures of gambling.

Another possibility is ambulatory assistance, for example, through outpatients’ clinics of psychiatric hospitals or addiction institutions, or through clinics for alcohol and drugs abuse. By having conversations with the patient, a solution is sought for his problems. Also debt restructuring can be part of this therapy. In more serious cases, admission to a clinic is necessary. The treatment of a gambling addiction is mainly focused on helping the patient to stop gambling. In this period, the treatment is aimed at an inventory of the problems; a list of debts is made and a plan is developed to pay them off, deals are made about who controls the money, relationship problems are dealt with, and underlying problems are looked at. Sometimes, gambling has to do with the sudden death of people around the person, neglect, or feelings of inferiority. Sometimes stopping gambling leads to serious psychological and somatic problems. It is preferable to involve partners or parents during the treatment. The people around the addict often turn out to have this need. They can play an important role in the arrangements about the control of money, debt repayment, etc. The treatment lasts on an average of 6 months.

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