MedicineToday PEER REVIEWED

Gambling disorders

Help for patients and families

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Problem gambling can have serious consequences for individuals and their families, but evidence indicates that this is a treatable disorder. By providing relevant information and support, clinicians can help individuals regain control over their behaviour.

MedicineToday 2014; 15(8): 55-58

Gambling is an iconic part of our Australian cultural heritage. Epidemiological surveys consistently indicate that up to 80% of adults engage in some form of commercial gambling over their lifetime, most commonly lotteries, including Lotto, and electronic gaming machines in clubs and hotels.[1,2] Similar findings have been reported in international jurisdictions.[3]

Australia has approximately 350 racetracks hosting over 2000 race meetings each year, more than 4000 wagering outlets supplemented by bookmakers and online/telephone accounts, 13 casinos and around 200,000 electronic gaming machines in 5500 venues. Sports betting has recently increased in prevalence as a consequence of aggressive media advertising and passive exposure through industry sponsorship of sporting teams.[4] The rapid rise and heavy promotion of online sports betting and social media gaming has generated a new breed of problem gambler: technologically knowledgeable young men and women with smart phones and tablet and laptop computers that provide convenient 24/7 access to gambling websites.

Most people gamble socially for fun and excitement and within affordable limits. However, approximately 1.2% of gamblers meet criteria for a psychiatric diagnosis of pathological gambling and a further 1.7% of gamblers who do not meet these criteria nevertheless experience moderate to severe gambling-related problems.[1] It is estimated that 0.5 to 1.0% of Australian adults experience significant gambling-related problems (meet criteria for pathological gambling) and that 1.4 to 2.1% experience moderate problems (meet subthreshold criteria).[2] Higher rates are found among patrons of gambling venues. Approximately 15% of regular gamblers have gambling-related problems, and contribute an estimated 40% of the total spending on gaming machines.[2] In a 2001 study of seven hotels and four clubs in Sydney, 16% and 28% of patrons, respectively, met criteria for pathological gambling.[5] Use of electronic gaming machines is over-represented among people with a gambling problem. Involvement in multiple forms of gambling raises the likelihood of a severe gambling problem.

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1. HOW DO GAMBLING DISORDERS DEVELOP?

Although it is possible to experience a big win at gambling (e.g. a lottery or Lotto jackpot), losses are the norm over the long term in the vast majority of cases. The statistical structure of commercial forms of gambling almost guarantees that repeated gambling will generate cumulating personal financial losses. This is because a percentage of each bet is retained by the operator for revenue and taxation. Electronic gaming machines, for example, offer a minimum 85% 'return to player' percentage.[13] Expressed differently, it costs a player up to 15% of each bet placed to play.

About three-quarters of people with a gambling disorder report large early wins. This 'success' sets up a series of errors in cognitive thought processes that result in gamblers overestimating their personal skills and probabilities of winning. As a consequence, they start to view gambling as an easy source of income, which leads them to gamble further. Random ratio schedules of reinforcement make it difficult to predict when the next win is due, which makes it hard for the gambler to cease gambling to avoid the cognitive regret of missing a win. As losses are incurred, gamblers increase the frequency and amount gambled in a fraught attempt to recoup (chase) losses. Over time, financial pressures mount, causing them to risk larger amounts in order to win sufficient to clear existing debts. This process leads to a downward spiral of financial and personal stresses.

In this context, the emotional strain of concealing debts and persistent gambling behaviours is combined with pressure to obtain funds to maintain gambling. At somewhat higher risk are individuals who have access to cash in their employment, such as accountants, bank tellers and sales staff. The psychological stress results in diffuse and vague somatic symptoms. Personality changes emerge, characterised by social withdrawal and irritability. Clinical studies have shown that approximately 75% of pathological gamblers meet criteria for major depression,[14] and 30% for substance abuse, predominantly alcohol abuse.[14,15] Approximately 40% of pathological gamblers report suicidal ideation,[16-18] and 1.7% of Australian suicides are reportedly related to gambling.[1] The constant fear of detection by spouses and significant others, fear of disclosure of serious debts and/or criminal activities, and fear of loss of employment produces a state of chronic anxiety, preoccupation and impaired attention and concentration.

The effects of problem gambling extend beyond the individual, with spouses and other family members being particularly vulnerable. The shock associated with sudden disclosure of serious debts generates significant emotional distress, confusion and subsequent anger in significant others. Relationships deteriorate, with loss of trust, and the stresses associated with dealing with creditors, financial institutions and the legal system can lead to conflict and psychiatric morbidity. The social stigma associated with problem gambling can cause severe embarrassment for family and friends.

TERMINOLOGY

Varied terminology has been used to describe individuals who gamble to excess. Historically, 'pathological gambling' applied to the behaviour of 0.2 to 1.2% of adults who met psychiatric diagnostic criteria for a disorder of impulse control, a group colloquially referred to as 'compulsive gamblers'. In the 2013 revision of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5),* the term 'pathological gambling' was replaced by 'gambling disorder' and it was reclassified as a behavioural addiction within the category of substance-related disorders.[6] In this article, the term 'problem gambling' is used for a wider spectrum of individuals, including some whose symptoms fall short of the threshold for diagnosis.

WHAT CAUSES PATHOLOGICAL GAMBLING?

The causes of pathological gambling are presently unknown, but there is a complex interaction of cultural beliefs (acceptability of gambling and beliefs in luck), biological, genetic and psychological factors (personal vulnerability), environmental factors (availability and accessibility) and experiential factors (learning and conditioning).[7] Some forms of gambling contain structural features that allow for rapid and continuous play with random schedule of reinforcement that are particularly resistant to extinction; it has been argued that these features contribute to excessive expenditure and impaired control among players.[8,9] The greater the degree of involvement in multiple forms of gambling, the more likely it is that an individual will experience gambling-related problems.[10] Evidence from functional MRI, EEG and psychopharmacological studies suggest that there is dysregulation in the meso–limbic–cortico regions potentially involving dopaminergic, serotonergic and adrenaline neurotransmitters.[11,12]

The typical development of gambling disorder is described in Box 1.

BARRIERS TO PRESENTATION

Few people with a gambling problem or their partners voluntarily disclose the problem to other people, including to clinicians. Common barriers to seeking counselling include a desire to self-manage problems, feelings of shame and embarrassment, the associated social stigma of gambling and a tendency to minimise its severity or to deny its presence. Some people have negative perceptions about the available treatments (or believe there is no treatment available to help them). For some people, attending clinical services is not practicable. In the majority of cases, it is impending disclosure or detection of a financial or related legal crisis that results in others becoming aware of the existence of a problem.

ASSESSMENT

Unfortunately, there are no clear overt signs or diagnostic physical tests for identifying problem gambling behaviour. Because of the barriers to presentation that are

discussed above, clinicians should expect gamblers and their families to be reluctant to spontaneously and openly communicate the presence of the problem to the doctor. Patients who have gambling problems often mask the condition by seeking medical treatment for related affective and/or stress symptoms without disclosing the true cause – common presenting complaints include vague somatic symptoms, such as hypertension, insomnia, generalised anxiety, depression, headaches, substance misuse and impaired concentration and attention. Therefore, when taking a clinical history it is useful to include a question about gambling as part of the routine assessment for associated lifestyle factors, such as recreational drug use, alcohol, tobacco and caffeine intake. It is particularly important that clinicians routinely ask about gambling when they are assessing patients who present with mental health issues.

There are several short screening instruments that have been shown to have acceptable sensitivity and specificity for detection of potential problem gambling. These include the South Oaks Gambling Screen (www.south-oaks.org/files/South_Oaks_Gambling_Screen.pdf)[19] and the Problem Gambling Severity Index (www.problemgambling.ca/en/resourcesforprofessionals/pages/problemgamblingseverityindexpgsi.aspx).[20] Pragmatically, asking the simple question 'In the past 12 months, have you ever had an issue with your gambling?' may be sufficient as a probe question for busy clinicians.[21] The presence of a gambling disorder should always be confirmed through a more detailed clinical assessment.

Given the high rates of suicidal ideation associated with problem gambling, it might be appropriate to screen patients who have a gambling problem for self-harm. In addition, it should be remembered that 54 to 63% of partners of problem gamblers report some form of interpersonal violence,[22,23] and so gambling should be assessed as a contributing factor for such presentations.

MANAGEMENT

In the Productivity Commission's 1999 national survey of gambling in Australia, only one in five respondents with severe gambling-related problems (and fewer than one in 14 with less severe gambling-related problems) had received counselling for their gambling behaviour.[1] At any one point in time, only between 3 and 30% of individuals who meet criteria for pathological gambling are receiving treatment.[24-26] Yet evidence indicates that problem gambling is a treatable disorder, with 65 to 85% of those who seek treatment reporting positive outcomes.[27,28]

Government-funded specialist counselling services and telephone helplines for gamblers are widely available and should be used when necessary. These free services provide a range of interventions that target cognitive distortions and high-risk behaviours that contribute to impaired control and persistence over gambling behaviours. A listing of services and sources of help in different states and territories is available online (www.problemgamblingguide.com/find_help_-_australia.html).

Psychological interventions

Several psychological interventions have been shown to be effective in the management of gambling disorders, with results of randomised controlled studies indicating cognitive and behavioural techniques to be the interventions of choice.

Cognitive interventions

Cognitive interventions target the erroneous and irrational beliefs and misunderstandings of certain key concepts (e.g. randomness, mutual independence, chance and probability) that play a central role in maintaining gambling behaviour.[29] These distorted perceptions result in:

- illusions of control that over-magnify personal skills and ability to influence or predict outcomes
- biased evaluation, where successes are attributed to skill and losses are dismissed as being caused by external influences
- selective recall of wins
- superstitious beliefs and attributes of luck
- 'gambler's fallacy', in which a win is expected following a series of losses.

Knowledge of statistics does not appear to be protective against such cognitive distortions.

Cognitive therapy aims to elicit errors in thinking and restructure these through education. Information is provided about the structural characteristics of gambling activities and the configuration and operation of gambling machines and other forms of gambling. Cognitive interventions may involve an explanation that some games are entirely based on chance, such as those on electronic gaming machines, roulette and dice games. For gambling activities that involve application of skill, the explanation may include the role of the (many) variables that affect the outcome, such that it can be considered as having a component of chance that makes it appear random for all intents and purposes. For example, unforeseeable factors may cause a racehorse to hesitate at the starting barrier, stumble or be blocked by other horses. Injuries to participants in a sport can affect its outcome. In a game of poker, an unfavourable final turn of cards dealt by chance can override skill and cause a loss.

Behavioural interventions

Behavioural interventions target the substantial subjective and physiological arousal generated by gambling. Repeated gambling leads to environmental cues and stimuli becoming classically conditioned (associated) with excitement, which become capable of generating strong cravings and urges. Through the process of operant conditioning, the reward of winning is positively reinforcing and leads to a desire to continue gambling. Behavioural interventions shift a gambler's environment to reduce exposure to triggers that precipitate urges and cravings and impose barriers that increase the difficulty of gambling. This may involve a gambler changing his or her pattern of socialising, particularly in regard to friends

2. TECHNIQUES FOR REGULATING GAMBLING BEHAVIOUR

Individuals who wish to control their gambling (rather than achieve abstinence) may find the following techniques useful for regulating their behaviour. This information may also be especially helpful when abstinence is considered to be beyond an individual's capacity to achieve.

- Set limits before commencing a gambling session. Make a pre-commitment to the amount of time and money that you can afford to lose.
- Avoid impulsive decision-making by limiting your options for obtaining additional funds through ATMs and EFTPOS. Take a limited amount of cash and refrain from carrying debit and credit cards.
- Avoid exposure to gambling venues by not travelling past them and by taking alternative routes instead.
- Foster improved communications with significant others. This will provide opportunities for you to elicit support from the family or peers at times of increasing urges to gamble.
- Cognitively reappraise what gambling provides for you. Does it represent a source of excitement, a means of dealing with emotional stresses, or part of an impulsive sensations-seeking lifestyle or personality trait? Gambling is a cause and not a solution for financial problems and related harms.
- If stress and depression act as trigger factors, consider implementing stress management and problem-solving interventions to enhance coping skills.
- Learn about the role of chance and randomness in gambling and about how electronic gaming machines and other forms of gambling operate.

who are involved in gambling or socialising in gambling venues.

Pharmacotherapy

At the moment, no pharmacological agents are recommended for the treatment of problem gambling. However, selective serotonin reuptake inhibitors (fluvoxamine and paroxetine), opioid antagonists (naltrexone) and mood stabilisers (lithium) have shown promise in assisting problem gamblers reduce their gambling behaviours.[30,31] These effects, which have been shown in only a limited number of research trials, are most likely to be related to antidepressant effects or to blockage of opioid receptors linked to affective and/or anticipatory reward.

HOW CAN THE GP HELP?

Motivational interviewing to increase a gambler's readiness to change can be considered the first step in responding to a patient with a gambling disorder. The pros and cons of ceasing gambling should be discussed, and the prospect of finding alternative recreational activities to substitute for gambling explored. Clinicians can educate patients about the role of chance and randomness in gambling, how electronic gaming machines and other forms of gambling operate, and related dysfunctional beliefs is a central feature of any intervention. This may be accomplished by providing clear explanations and offering relevant books and other materials on the topic, or through referral to specialist gambling counsellors.

Current and pressing financial pressures should be discussed. The gambler should be informed that chasing losses is integral in maintaining gambling. Referral to a financial counsellor to reduce the stresses that represent relapse risk factors is recommended for gamblers under financial pressure from creditors. Gambling may be perceived to be the only opportunity to obtain money to repay pressing debts.

It may be appropriate to discuss treatment objectives – that is, controlled gambling versus abstinence. The priority is to encourage the gambler to accept treatment. He or she may be ambivalent about giving up altogether and refuse to enter treatment if abstinence is advanced as the only outcome. This is important if abstinence is considered to be beyond an individual's capacity to achieve. Some techniques used by problem gamblers for regulating their behaviour in the absence of professional treatment are briefly discussed in Box 2.

For a patient with a severe gambling disorder in whom significant financial, legal and marital problems are evident, a suicide assessment should be undertaken and the patient managed as appropriate. Referral to a relationship or marriage counsellor should be considered where appropriate.

If a comorbid alcohol problem is present, it is important to address both conditions because one problem may trigger relapse for the other. Any coexisting psychiatric condition will need to be assessed and managed.

CONCLUSION

Gambling is a popular recreational activity for many adults. However, evidence suggests that approximately 0.8 to 1.0% of adults experience significant financial, personal and familial problems as a consequence of gambling beyond affordable levels. Cognitive and behavioural interventions are effective in assisting gamblers regain control over their gambling behaviour. It is important to assess and provide support to family members. Loss of trust, marital conflict and financial pressures increase the risk of alcohol abuse, domestic violence and divorce. Referral for financial counselling should be considered for patients whose debts are excessive and act as precipitants for further gambling. MT

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A list of references is included in the website version (www.medicinetoday.com.au) and the iPad app version of this article.

COMPETING INTERESTS: None.

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