

Youth gambling: not a safe bet

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Purpose of review

To increase awareness and knowledge of the growing problem of adolescent gambling.

Recent findings

Some risk factors have been established for adolescent gambling. Many of the risk factors for gambling behavior can be addressed in effective prevention of problem gambling. There is an association between some psychiatric comorbid conditions and problem gambling (i.e. depression). Current treatment modalities are based on adult experiences and need further investigation for adolescents. Prevention strategies and education of youth, parents, teachers, educators, and professionals are essential in targeting this serious problem.

Summary

Given the increasing overall prevalence of adolescent gambling, it is imperative that pediatricians appreciate that gambling problems can also afflict adolescents. There is a clear link between problem gambling in adolescence and pathologic gambling in adulthood. Thus, like other addictive behaviors (cigarette smoking, alcohol and drug use), youth and parents should be screened and counseled about the risks associated with excessive gambling.

Keywords

adolescents, gambling, gaming, risk-taking behaviors

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Abbreviations

DSM-III *Diagnostic and statistical manual of mental disorders*, 3rd ed

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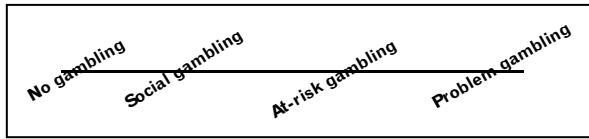
Introduction

The gambling milieu has changed dramatically over the past decade. Legalization of multiple gambling venues internationally has increased the accessibility of multiple forms of gambling. Despite the recognized personal and social costs associated with excessive gambling, gambling activity remains a socially acceptable behavior and is on the rise. Gambling is illegal for minors under ages 18–21 years in most jurisdictions; however, recent literature suggests it is a common recreational activity in which many adolescents engage.

Gambling behavior is not limited to adults. Despite the prohibition against youth participating in government-sponsored and regulated forms of gambling (i.e. casinos, lottery games, sports betting, horse betting), ample evidence suggests that youth participate in both regulated and nonregulated forms of gambling (cards and sports betting with peers). Derevensky and Gupta [1] have recently provided a comprehensive examination of the current status of research and knowledge concerning youth gambling and problem gambling.

Several terms are used to describe excessive gambling behavior, such as 'pathologic gambling', 'problem gambling', and 'compulsive gambling'. In 1980, the American Psychiatric Association [2] officially included pathologic gambling in the *Diagnostic and statistical manual of mental disorders*, 3rd ed (DSM-III). As in adults, adolescent gambling is on a continuum. Those falling at the extreme end – problem gamblers – experience significant personal, social, financial, educational, and mental health problems (Fig. 1) [3]. Derevensky and Gupta's book, *Gambling problems in youth* [3], is the most current up-to-date authority examining all facets of adolescent gambling and problem gambling.

Multiple prevalence studies suggest that 60–80% of adolescents have engaged in some form of gambling in the previous year [4,5]. The National Research Council's report *Pathological gambling: a critical review* [4] was presented to the presidential commission studying gambling in the United States under President Clinton. While not exclusively addressing adolescent gambling problems, it has a section reviewing much of the prevalence work. Although most adolescent gamblers are social or occasional gamblers, 10–15% of adolescents are at risk for developing a gambling problem and as many as 3–8% of adolescents have serious gambling problems. In North America alone, 15 million youth are gambling without

Figure 1 Continuum of gambling behaviors

Adolescent gambling falls along a continuum. Problem gamblers at the extreme end of the continuum may experience significant problems.

adult knowledge, and as many as 2 million of the same youth have problems related to their gambling behavior [6]. A seminal paper by Derevensky and Gupta [6] suggests that although the prevalence rates may vary slightly depending on the instruments selected, overall they are all fairly good estimates of adolescent problem gambling.

Where are youth gambling?

Several studies have examined where adolescents are gambling. Some current, popular gambling venues include wagering on cards (Texas hold 'em and poker), dice, and board games. In addition, adolescents purchase lottery tickets and bet with peers on sports games (basketball, pool, bowling), arcade games, and wager with bookmakers. Internet and mobile gambling, table games in casinos, and electronic gambling machines (video lottery terminals, poker machines, fruit machines, 'pokies') where permissible are also popular [7]. The popularity of various gambling forms depends on local access to games, gender, age, and cultural and ethnic background. In areas dense with casinos, such as Las Vegas or Atlantic City, New Jersey, adolescents are more likely to engage in casino gaming (National Gambling Impact Study Commission final report, June 1999, <http://govinfo.library.unt.edu/ngisc/reports/fullrpt.html> provides the results, conclusions, and recommendations submitted to the presidential commission examining gambling in the US).

Overall, boys tend to engage in more gambling than girls and prefer sports betting to females' preference for lottery tickets. Older adolescents tend to prefer casinos and slot gambling [8].

The attraction to gaming and slot machines is attributed to reinforcement from variable payout schedules, 'near miss' misconception (perception of not constantly losing, but almost winning), color, lights, and low-cost entry. Many of these characteristics are shared with lottery tickets [9]. Griffiths and Wood [9] discuss the relationship and similarities between video game playing and gambling behavior. It is their contention that both video games and many forms of gambling have similar properties and structural characteristics.

The Internet explosion, mobile gambling, and electronic lottery and gambling games provide discreet opportunities for adolescent gambling. Many of the Internet sites allow trial gambling without money, as a way of enticing younger players. In addition, if adolescents have access to credit cards, they can gamble anonymously as the charges are posted under bogus names. Evidence suggests that gambling with or without money contributes to gambling problems [3].

Age restrictions and accessibility to gambling venues vary by the type of game (lottery playing is generally perceived to be less harmful) and are different in different jurisdictions. Children under the ages of 18–21 years are prohibited from gambling in most jurisdictions. Some have noted, however, that the resourcefulness and paucity of enforcement of statutes enable adolescents to gamble in many arenas [10]. Jacobs [10] provides an examination of current prevalence rates of adolescent gambling and problem gambling throughout North America and predicts that the problems will get significantly worse unless we take positive initiatives.

Screening for problem gambling behavior in adolescents

One of the key aspects of recognizing adolescent gambling is increasing awareness among teachers, parents, and healthcare professionals. A practical approach to screening for problem gambling is needed, due to the time constraints of pediatricians.

Screening for gambling activity should be initiated at age 12 years or in junior high school. One option is incorporating gambling into the HEADS adolescent screening that has widespread use amongst pediatricians. Expanding to HEADGES (home, education/employment, eating; activities; drugs, gambling; sex, suicide, safety) is a useful strategy for clinicians [11].

Moreover, screening for problem gambling can be accomplished with a few simple questions added to the office risk assessment [12**]:

- Do you gamble or bet on games?
- Have you ever felt that your gambling or betting was out of control?
- Have you ever gotten into a fight with your family or friends because of gambling or betting?
- Have you ever felt like you lost too much money in gambling or betting?

Over the past decade, our understanding of adolescent problem gambling has made significant gains. On the contrary, the same cannot be said for screening instruments for adolescent problem gambling. Currently, the available screening instruments for adolescents are

adaptations of adult instruments with modifications for age and developmental appropriateness. Such instruments include the South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA) [13]; DSM-IV-MR-J (Multiple Response-Juveniles) [14]; and the Massachusetts Adolescent Gambling Screen [15]. These instruments can be employed as ancillary screening measures when problem gambling is suspected based on routine office screening. Fisher [14] has reported on the development of a reliable and valid scale for measuring adolescent gambling problems.

Risk factors for problem gambling

During an office visit, parents should be screened for problem gambling activity, as this places their child at risk for similar problem behavior. It is important that parents, teachers, and health professionals become familiar with warning signs and risk factors for problem gambling (Table 1).

In addition, a family history of pathologic gambling and gambling at an early age are risk factors for problem gambling. One survey [11] of adolescents found that adolescents who gambled were nearly twice as likely as nongambling adolescents to have a gambling parent.

The majority of adolescents perceive gambling as a benign, socially acceptable form of entertainment. Despite awareness of the negative consequences associated with problem gambling, many view gambling positively.

Prevention

We must examine protective factors for excessive adolescent gambling. This is especially important in light of the clear link between adolescent problem gambling and adult pathologic gambling. Identification of risk factors for gambling can help us examine areas we can target to prevent gambling behavior. It has been found that family cohesiveness and school connectedness play a

Table 1 Warning signs and risk factors for problem gambling

Boys (ages 16–25) 2–4 times higher prevalence for pathologic gambling than girls
Begin gambling at an early age (8 years)
Had a big win early in gambling career
Access to gambling venues
Replacement of friends with peers who are gambling
Consistently chase losses
Begun gambling alone or with parents or siblings
Depressed before gambling
Excited or aroused during gambling
Irrational during gambling
Poor grades at school
Engage in other addictive behaviors (smoking, drinking alcohol, illegal drugs)
Lower socioeconomic status
Have parents who have gambling problems or other addictions
History of delinquency or stealing money to fund gambling problem
Skip school to go gambling
School problems

role in protecting adolescents from problem gambling [16].

Part of prevention includes education and awareness of parents, teachers, and health professionals about the risks and signs of problematic gambling in adolescents. Multiple visits to gambling-related Internet sites, excessive reactions to sporting events, excessive monetary spending, and finding large numbers of lottery/scratch cards are a few warning signs that an adolescent may have a problem.

Videos and didactic presentations discussing the facts and realities of gambling have been shown to be effective preventive strategies for grade school and high school students [17]. It is paramount that pediatricians approach this problem like we do cigarette smoking and alcohol and drug use for our patients.

In addition, the American Academy of Pediatrics [18] has recognized that gambling is an issue for our youth, producing a pamphlet titled *Gambling: not a safe thrill*. This pamphlet is available for purchase and can be kept in patient waiting areas. Resources for healthcare professionals and families are provided in Table 2.

Mental health concerns

Recent evidence [7] suggests an association between alcohol and drug use and pathologic gambling among adolescents. Some adult studies show that as many as 30–50% of pathologic gamblers have a comorbid substance abuse disorder. Some have suggested that adolescent problem gamblers employ gambling as a mechanism to escape current and past problems and major traumatic life events [1].

Adolescents with problematic gambling behavior meet criteria for major depression more often than their

Table 2 Resources for healthcare professionals and families

National Council on Problem Gambling, Inc. 208 G Northeast, Second Floor Washington, DC 20002, USA Tel: 202 547 9204 Helpline: 1 800 533 4700 (24-hour helpline) ncpg@ncpgambling.org www.ncpgambling.org
Gambler's Anon International Service Office P.O. Box 157 Whitestone, NY 11357, USA Tel: 718 352 1671 www.gam-anon.org
YMCA of Greater Toronto, YMCA Youth Gambling Project, Ontario, Canada www.ymcatoronto.org/gambling
YouthBet Youth Gambling www.youthbet.org Part of University of Toronto research to assess teens' use of the Internet for gambling

nongambling counterparts. There has also been an association as high as 20% of pathologic gambling with comorbid attention deficit hyperactivity (ADHD) disorder [19]. It is currently uncertain whether ADHD predisposes individuals to impulsive gambling behavior, although the *DSM* recognizes pathologic gambling as an impulse control disorder.

Treatment

The treatment approach to adolescents and young adults with problem gambling behavior mirrors that of adults. Various approaches to treatment are based on individual needs. These approaches include behavioral, psychoanalytic or psychodynamic, cognitive-behavioral, pharmacologic, physiological, biologic/genetic, or self-help programs. There currently is no consensus on the best empirical treatment for adolescent problem gambling, due in large part to the lack of randomized clinical trials examining treatment modalities and to the fact that there is no overall agreement on the cause of problem gambling. Sylvain *et al.* [17] recently published a report on cognitive and behavioral approaches to the treatment of problem gamblers that shows promise, although their sample was small.

Some experts [1] suggest that a dynamic approach to treatment is most suitable. This approach fosters incorporating all the patient's unique characteristics (behavioral, social, genetic, medical) into a treatment program. As mentioned previously, many gamblers have comorbid psychiatric diagnoses. In designing a treatment program, comorbid conditions must also be addressed.

Some existing models for treatment include self-help groups (several of which are geared for younger populations), inpatient treatment programs, cognitive-behavioral psychotherapy, telephone counseling, and addiction-based psychotherapy. It is essential that adolescents with problem gambling be referred to therapists with experience with this population.

Although little is known about pharmacologic treatment for adolescent problem gambling, a growing body of evidence suggests that it may be effective for some adults. The agents typically employed include serotonin reuptake inhibitors (SSRIs), naltrexone monotherapy, and mood stabilizers. Little is known, however, about the efficacy of these agents with adolescent patients [20]. Clearly, more research is needed in this area. The combination of behavioral and pharmacologic modalities has been shown to be superior to that of either modality alone in adults [21]. Grant *et al.* [20] discuss the current status of psychopharmacologic interventions for problem gambling. While not directly applicable for adolescents until more research is conducted, several SSRIs show considerable promise.

Clearly there is a dearth of literature regarding the treatment of adolescent problem gambling. No validated or reliable treatment guidelines or best practices exist. This is an area that is in need of further investigation.

Conclusion

Gambling behavior among adolescents is a significant and growing problem. It is important that healthcare professionals, teachers, and parents recognize this problem and take it seriously. The link to other risk-taking behaviors such as alcohol and drug use has been established and may provide segues into awareness.

Despite gaps in our knowledge of the natural history of gambling and treatment modalities for adolescents, we know that problem gambling poses serious personal, social, and financial threats. Further research into treatment modalities specifically targeting adolescents is warranted.

There is a plethora of both government-supported and non-government-supported and regulated gambling venues. In spite of age restrictions, our youth still manage to access these as well as Internet and computer-based forms of gambling. Recognition of adolescent gambling is essential due to the link to adult pathologic gambling. We must continue to encourage our youth to become healthy, well adjusted adults, free of addictive behaviors.

References and recommended reading

Papers of particular interest, published within the annual period of review, have been highlighted as:

- of special interest
- of outstanding interest

Additional references related to this topic can also be found in the Current World Literature section in this issue (p. 476).

- 1 Derevensky JL, Gupta R. Adolescents with gambling problems: a synopsis of our current knowledge. *eGambling: The Electronic Journal of Gambling Issues* 2004; 10:119–140. <http://www.camh.net/egambling>.
- 2 American Psychiatric Association 2000. *Diagnostic and statistical manual of mental disorders (text revision)*. Washington, DC: American Psychiatric Press.
- 3 Derevensky J, Gupta R, editors. *Gambling problems in youth: theoretical and applied perspectives*. New York: Kluwer Academic/Plenum Publishers; 2004.
- 4 National Research Council. *Pathological gambling: a critical review*. Washington, DC: National Academy Press; 2000.
- 5 Adlaf E, Ialomiteanu A. Prevalence and problem gambling in adolescents: findings from the 1999 Ontario Student Drug Use Survey. *Can J Psychiatry* 1999; 45:752–755.
- 6 Derevensky J, Gupta R. Prevalence estimates of adolescent gambling: a comparison of SOGS-RA, DSM-IV-J, and the GA 20 Questions. *J Gambli Stud* 2000; 16:227–252.
- 7 Gupta R, Derevensky JL. Adolescent gambling behavior: a prevalence study and examination of the correlates associated with problem gambling. *J Gambli Stud* 1998; 14:319–345.
- 8 Stinchfield R. Gambling and correlates of gambling among Minnesota Public School students. *J Gambli Stud* 2000; 16:153–173.
- 9 Griffiths D, Wood TA. Risk factors in adolescence: the case of gambling, videogame playing and the Internet. *J Gambli Stud* 2000; 16:199–225.
- 10 Jacobs DF. Youth gambling in North America: an analysis of long term trends and future prospects. In: Derevensky J, Gupta R, editors. *Gambling problems in youth: theoretical and applied perspectives*. New York: Kluwer Academic/Plenum Publishers; 2004. pp. 1–26.

- 11 Buchta R. Gambling among adolescents. *Clin Pediatr (Phila)* 1995; 34:346–348.
- 12 Turchi RM, Black DW, Buchta RM. Gambling and children: betting against the future of young lives. *Contemp Pediatr* 2005; 22:45–62.
 This article offers a more extensive review of gambling and children, with discussion of a conceptual framework and examples of more screening instruments.
- 13 Winters KC, Stinchfield RD, Fulkerson J. Toward the development of an adolescent gambling problem severity scale. *J Gambl Stud* 1993; 9:371–386.
- 14 Fisher SE. Developing the DSM-IV-MR-J criteria to identify adolescent problem gambling in non clinical populations. *J Gambl Stud* 2000; 16: 253–273.
- 15 Shaffer H, LaBrie R, Scanlan K, Cummings T. Pathological gambling among adolescents: Massachusetts Gambling Screen. *J Gambl Stud* 1994; 10:339–362.
- 16 Dickson-Gillespie L, Derevensky JL, Gupta R, Hardoon K. Adolescent attitudes toward gambling. *Psychologie Francaise* 2006 (in press).
- 17 Sylvain C, Ladouceur R, Bolsvert JM. Cognitive and behavioral treatment of pathological gambling: a controlled study. *J Consult Clin Psychol* 1997; 65:727–732.
- 18 American Academy of Pediatrics. Gambling: not a safe thrill (HEO287). Washington, DC: American Academy of Pediatrics; Division of Publications; 1999.
- 19 Specker SM, Carlson GA, Christensen GA. Impulse control disorders and attention deficit disorder in pathological gamblers. *Ann Clin Psychiatry* 1995; 7:175–179.
- 20 Grant JE, Kim SW, Potenza MN. Advances in the pharmacological treatment of pathological gambling. *J Gambl Stud* 2003; 19:85–109.
- 21 Carroll KM. Integrating psychotherapy and pharmacotherapy to improve drug abuse outcomes. *Addict Behav* 1997; 22:233–245.