

Adolescent Problem Gambling: Legislative and Policy Decisions

JEFFREY L. DEREVENSKY, RINA GUPTA, and MAGGIE MAGOON

INTRODUCTION

THE HISTORY OF GAMBLING on an international level has passed through a number of cycles from prohibition to widespread proliferation. Gambling has gone from being associated with sin, criminal behavior, degradation, and corruption to its current position as a socially acceptable form of entertainment. Gambling revenues have emerged as a major source of funds for governments, charities, and businesses throughout the world. With the widespread proliferation of gambling venues

and with new emerging technologies (i.e., electronic gaming machines, Internet gambling, interactive lotteries, video game technologies being used in traditional slot machines) playing an ever increasing role, there remains concern over the social costs associated with gambling in spite of the concomitant benefits.

While gambling is often thought to be an adult activity, there is ample research to suggest that gambling begins early and that adolescents engage in most forms of non-regulated gambling (i.e., card playing, wagering on personal games of skill, Internet gambling, sports betting through a bookmaker, etc.) and regulated gambling (i.e., lottery, electronic gambling machines, casino, bingo, horse racing, etc.) in spite of legal prohibitions.¹

There exists considerable variability in legislative regulation of gambling aimed at adolescents. For example, while casino entry in many jurisdictions is relegated to individuals age 21 in the United States, in other countries the entry age is 18 or older depending upon the jurisdiction. Different games can also have different age minimums and in the U.K. there are no age restrictions on fruit machine playing (low cost slot machines). In many jurisdictions special exemptions exist for bingo (often thought to be a family activity) and lottery purchases are generally regulated to ensure one must be at least 18 years old to purchase a ticket. Rose² has noted that in spite of adverse

Dr. Jeffrey L. Derevensky is Professor of School/Applied Child Psychology, Department of Education and Counseling Psychology, McGill University; and Associate Professor, Department of Psychiatry, McGill University. He is Co-Director of the McGill University Youth Gambling Research & Treatment Clinic and the International Centre for Youth Gambling Problems and High-Risk Behaviors. He is a child psychologist who has published widely in the field of youth gambling, is an Associate Editor of the *Journal of Gambling Studies*; and is on the editorial board of several journals.

Dr. Rina Gupta is a child psychologist and Assistant Professor (part time) of School/Applied Child Psychology at McGill University. She is on the editorial board of the *Journal of Gambling Studies* and is Co-Director of the McGill University Youth Gambling Research & Treatment Clinic and the International Centre for Youth Gambling Problems and High-Risk Behaviors. Her research and clinical work has been focused on understanding, preventing and treating youth with gambling problems. Dr. Gupta has provided expert testimony before a number of government committees and national and international commissions.

Dr. Maggie Magoon is currently a Post-Doctoral Fellow at McGill University's International Centre for Youth Gambling Problems and High-Risk Behaviors. She remains interested in understanding the antisocial and delinquent behaviors associated with youth experiencing serious gambling problems.

¹ See D.F. Jacobs, *Juvenile gambling in North America: An analysis of long-term trends and future prospects*, 16(2/3) JOURNAL OF GAMBLING STUDIES 119-152 (2000).

² I.N. Rose, *Legislative activity and inactivity*, 3(4) YOUTH GAMBLING INTERNATIONAL NEWSLETTER 1-2 (2003).

political and moral pressure, those few legislators who have looked at lowering the legal minimum age to gamble have been dissuaded having concluded that revenues would not increase substantially. Yet, there is strong evidence that while the amount wagered by underage individuals may be insignificant from the industry's perspective, it is nevertheless considerable and as a group, adolescents may be particularly susceptible to gambling-related problems.³

YOUTH GAMBLING

In some early research there was clear evidence that high school students gambled in casinos in Atlantic City in spite of legal prohibitions.⁴ Seven years ago Lesieur and Klein⁵ noted that 86% of high school students in New Jersey indicated having gambled in the past year and 91% had participated in some form of gambling during their lifetime. These early studies eventually led to a plethora of prevalence studies, meta analyses, and reviews which concluded that gambling amongst youth was not only commonplace but that the prevalence rates for pathological gambling amongst adolescents is higher than that reported for adults.⁶ The National Research Council⁷ after reviewing the scientific literature concluded that adolescents were indeed a high-risk and vulnerable population likely to develop gambling problems and may be especially vulnerable. While urging caution that data sets were not always directly comparable, the National Research Council concluded that the proportion of pathological gambling of adolescents in the United States could be more than three times that of adults (5.0% vs. 1.5%).

While the actual prevalence rates for adolescent pathological gambling remains somewhat contentious,⁸ and there is concern over the screening instruments used for the identification of adolescents with gambling problems,⁹ there is little doubt that a vast majority of adolescents report wagering money during the past year and that an identifiable number actually experience significant gambling related negative behaviors. Prevalence rates reveal that as many 30% of youth wager money on some form of game of chance weekly, with 4% gam-

bling daily.¹⁰ Current prevalence rates suggest that between 4–8% of adolescents have a very serious gambling problem with another 10–15% at-risk for developing a gambling problem.¹¹

Using our existing standardized measures, Derevensky and Gupta¹² reported that 91% of adolescents with a pathological gambling problem showed signs of having a preoccupation with gambling; 85% indicated chasing their losses; 70% lie to family members, peers, and friends about their gambling behavior; 61% gamble as a way of escaping problems; 61% use their lunch money and/or allowance for gambling; 61% become tense and restless when trying to cut down on their gambling; 57% report spending increasing amounts of money gambling; 52% gamble as a way of escaping prob-

³ See J. L. Derevensky & R. Gupta, *Adolescents with gambling problems: A review of our current knowledge*. E-GAMBLING: THE ELECTRONIC JOURNAL OF GAMBLING (in press); R. Gupta, R. & J.L. Derevensky, *Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling*, 14 JOURNAL OF GAMBLING STUDIES 319–345 (1998); NATIONAL RESEARCH COUNCIL, *PATHOLOGICAL GAMBLING A CRITICAL REVIEW* (National Academy Press, 1999).

⁴ See A.F. Arcuri, D. Lester, & E.O. Smith, *Shaping adolescent gambling behavior*, 20 ADOLESCENCE 935–938 (1985).

⁵ H.R. Lesieur & R. Klein, *Pathological gambling among high school students*, 12 ADDICTIVE BEHAVIORS 129–135 (1987).

⁶ See, e.g., K. Hardoon & J.L. Derevensky, *Child and adolescent gambling behavior: Our current knowledge*, 7(2) CLINICAL CHILD PSYCHOLOGY AND PSYCHIATRY 263–281 (2002); Jacobs, *supra* note 1; NATIONAL RESEARCH COUNCIL, *supra* note 3; H.J. Shaffer & M.N. Hall, *Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature*, 12 JOURNAL OF GAMBLING STUDIES 193–214 (1996).

⁷ NATIONAL RESEARCH COUNCIL, *supra* note 3.

⁸ See J.L. Derevensky, R. Gupta & K. Winters, *Prevalence rates of youth gambling problems: Are the current rates inflated?* 19(4) JOURNAL OF GAMBLING STUDIES 405–425 (2003), for a comprehensive discussion.

⁹ See H.R. Lesieur, *Adolescent gambling research: The next wave*, in FUTURES AT STAKE: YOUTH GAMBLING AND SOCIETY (H.J. Shaffer et al. eds., 2003), for some of the methodological weaknesses of the instrumentation.

¹⁰ See B. Adebayo, *Gambling behavior of students in grades seven and eight in Alberta, Canada*, 68(1) JOURNAL OF SCHOOL HEALTH, 7–12 (1998); Gupta & Derevensky, *supra* note 3; R.T.A. Wood & M.D. Griffiths, *The acquisition, development, and maintenance of lottery and scratchcard gambling in adolescence*, 21 JOURNAL OF ADOLESCENCE 265–273 (1998).

¹¹ See Jacobs, *supra* note 1; Shaffer & Hall, *supra* note 6.

¹² J.L. Derevensky & R. Gupta, *Prevalence estimates of adolescent gambling: A comparison of the SOGS-RA, DSM-IV-J, and the GA 20 Questions*, 16(2/3) JOURNAL OF GAMBLING STUDIES 227–251 (2000).

lems; 27% report skipping school (more than 5 times) to gamble in the past year; 24% have taken money from a family member to gamble without their knowledge; 24% have sought help for serious financial concerns resulting from their gambling; 21% have developed familial problems resulting from their gambling behavior; and 12% report having stolen money from outside the family to gamble.

Problem and pathological gambling amongst adolescents has been shown to result in increased delinquency and crime, the disruption of familial relationships and multiple mental health, legal, academic, and behavioral problems.¹³

OUR CURRENT STATE OF KNOWLEDGE

There is considerable empirical support suggesting that gambling involves a complex and dynamic interaction between ecological, psychophysiological, developmental, cognitive, and behavioral components. No one single cause or social determinant can predict whether an individual will develop a gambling problem. Sub-

stantial empirical evidence and a growing body of research concerning adolescent gambling during the past decade has revealed that: (a) gambling is more popular amongst males than females, and more males than females exhibit pathological gambling behaviors;¹⁴ (b) problem adolescent gamblers are greater risk-takers in general, and on gambling tasks in particular;¹⁵ (c) adolescent prevalence rates of problem gamblers are higher than those reported by adults.¹⁶ While there is some controversy regarding this conclusion, there is ample empirical research supporting this finding given our current definition of pathological gambling and the screening instruments used for assessment;¹⁷ (d) research data and clinical testimony suggest that adolescent pathological gamblers have lower self-esteem;¹⁸ (e) adolescent problem gamblers exhibit greater depressive symptomatology;¹⁹ (f) adolescents between the ages of 14–17 with serious gambling problems remain at heightened risk for suicide ideation and suicide attempts;²⁰ (g) for adolescents with severe gambling problems quality, long-lasting friendships and relationships are often lost

¹³ See Gupta & Derevensky, *supra* note 3; K. Hardoon, R. Gupta & J. Derevensky, J., *Psychosocial variables associated with adolescent gambling: A model for problem gambling*, *PSYCHOLOGY OF ADDICTIVE BEHAVIORS* (in press); R. Ladouceur & C. Mireault, *Gambling behaviors among high school students in the Quebec area*, 4 *JOURNAL OF GAMBLING BEHAVIOR* 3–12 (1988); Lesieur & Klein, *supra* note 5; M. Magoon, R. Gupta & J. Derevensky, *Juvenile delinquency and adolescent gambling: Implications for the juvenile justice system* (2003). (unpublished manuscript on file at McGill University, Montreal, QC, Canada); H. Wynne, G. Smith & D. Jacobs, *Adolescent Gambling and Problem Gambling in Alberta*. (1996) (report prepared for the Alberta Alcohol and Drug Abuse Commission, Edmonton).

¹⁴ See Gupta & Derevensky, *supra* note 3; Jacobs, *supra* note 1; R. Ladouceur, D. Dubé & A. Bujold, *Gambling among primary school students*, 10 *JOURNAL OF GAMBLING STUDIES*, 363–370 (1994); NATIONAL OPINION RESEARCH CENTER (NORC), *GAMBLING IMPACT AND BEHAVIOR STUDY: REPORT TO THE NATIONAL GAMBLING IMPACT STUDY COMMISSION* (1999); NATIONAL RESEARCH COUNCIL, *supra* note 3; R. Stinchfield, *Gambling and correlates of gambling among Minnesota public school students*, 16(2/3) *JOURNAL OF GAMBLING STUDIES* 153–173 (2000); Wynne et al., *supra* note 13.

¹⁵ See R.B. Breen & M. Zuckerman, *Personality and cognitive of gambling participation and perseverance*, Paper presented at the Tenth National Conference on Gambling Behavior, Chicago (September 1996); J.L. Derevensky & R. Gupta, *Risk-taking and gambling behavior among adolescents: An empirical examination*, Paper presented to the Annual Meeting of the National Conference on Com-

pulsive Gambling. Chicago, IL (May 1996); G.J. Powell, K. Hardoon, J.L. Derevensky & R. Gupta, *Gambling and risk taking behavior of university students*, 34(8) *SUBSTANCE USE AND MISUSE* 1167–1184 (1999); ZUCKERMAN, M., *SENSATION SEEKING: BEYOND THE OPTIMAL LEVEL OF AROUSAL* (1979); M. Zuckerman, S.B.G. Eysenck & H.J. Eysenck, *Sensation seeking in England and America: Cross cultural, age, and sex comparisons*, 46 *JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY* 139–149 (1978).

¹⁶ See Derevensky, Gupta & Winters, *supra* note 8; Gupta & Derevensky, *supra* note 3; Jacobs, *supra* note 1; NATIONAL RESEARCH COUNCIL, *supra* note 3; Shaffer & Hall, *supra* note 6.

¹⁷ See Derevensky, Gupta & Winters, *supra* note 8.

¹⁸ See Gupta & Derevensky, *supra* note 3.

¹⁹ See Gupta & Derevensky, *supra* note 3; J.L. Derevensky & R. Gupta, *Le problème de jeu touché aussi les jeunes*, 18(6) *PSYCHOLOGIE QUÉBEC* 23–27 (2001); F. Kaufman, J. Derevensky & R. Gupta, *The relationship between life stresses, coping styles and gambling behavior among adolescents*, Poster presented at the annual meeting of the National Council on Problem Gambling, Dallas (June 2002); N. Marget, R. Gupta & J.L. Derevensky, *The psychosocial factors underlying adolescent problem gambling*, Poster presented at the annual meeting of the American Psychological Association, Boston (August 1999).

²⁰ See Gupta & Derevensky, *supra* note 3; Derevensky & Gupta, *supra* note 19; L. Nower, R. Gupta & J.L. Derevensky, J. L., *The relationship of impulsivity, sensation seeking, coping and substance use in youth gamblers*, *PSYCHOLOGY OF ADDICTIVE BEHAVIORS* (in press).

and replaced by gambling associates;²¹ (h) adolescent problem gamblers remain at increased risk for the development of multiple addictions;²² (i) adolescents with gambling problems have poor general coping skills²³ and report more daily hassles and major traumatic life events;²⁴ (j) adolescent problem gamblers report starting gambling at an early age (approximately 10 years of age);²⁵ (k) only a small percentage of individuals scoring in the pathological gambling range on multiple screening instruments perceive themselves as having a gambling problem, one of the reasons for their lack of seeking professional help;²⁶ (l) a high proportion of youth with gambling problems report having a learning disability, poor academic performance, higher dropout rates, as well as poor family connectedness, and low perceived social support;²⁷ (m) personality traits reveals adolescent pathological gamblers are more excitable, extroverted, anxious, tend to have difficulty conforming to societal norms,

and experience difficulties with self-discipline,²⁸ exhibit higher scores on measures of state and trait anxiety,²⁹ and are more impulsive;³⁰ (n) similar to adults,³¹ children and adolescents often have a positive attitude toward gambling;³² (o) adolescents often fail to comprehend the risks and odds associated with gambling;³³ and (p) among adolescents there appears to be a rapid movement from social (non-problematic) gambler to problem gambler.³⁴

EARLY GAMBLING

For those who begin gambling at a young age, the likelihood for future pathological gambling and participation in other problem behaviors increases.³⁵ In surveying age of onset of problem behaviors, gambling often precedes other risky behaviors, possibly serving as a gateway behavior to other addictive behaviors.

²¹ See J.L. Derevensky & R. Gupta, R., *Youth gambling problems: A new issue for school psychologists*, 12(11) NOVA SCOTIA PSYCHOLOGIST 8-11 (1999); R. Gupta & J.L. Derevensky, *Adolescents with gambling problems: From research to treatment*, 16(2/3) JOURNAL OF GAMBLING STUDIES 315-342 (2000); Wynne et al., *supra* note 13.

²² See Gupta & Derevensky, *supra* note 3; Derevensky & Gupta, *supra* note 19; Lesieur & Klein, *supra* note 5; K.C. Winters & N. Anderson, *Gambling involvement and drug use among adolescents*, 16(2/3) JOURNAL OF GAMBLING STUDIES 175-198 (2000).

²³ See Derevensky & Gupta, *supra* note 19; R. Gupta, J. Derevensky & N. Marget, N., *Coping strategies employed by adolescents with gambling problems*, CHILD AND ADOLESCENT MENTAL HEALTH (in press); L. Nower, J.L. Derevensky & R. Gupta, *Youth gamblers and substance abusers: A comparison of stress-coping styles and risk-taking behavior of two addicted adolescent populations*, Paper presented at the 11th International Conference on Gambling and Risk-Taking, Las Vegas, NV (June 2000).

²⁴ See Derevensky & Gupta, *supra* note 19; Kaufman et al., *supra* note 19.

²⁵ See Derevensky & Gupta, *supra* note 19; R. Gupta & J.L. Derevensky, J. L., *Familial and social influences on juvenile gambling behavior*, 13(3) JOURNAL OF GAMBLING STUDIES 179-192 (1997); Gupta & Derevensky, *supra* note 3; Wynne et al., *supra* note 13.

²⁶ See K. Hardoon, J.L. Derevensky & R. Gupta, *Empirical vs. perceived measures of Gambling severity: Why adolescents don't present themselves for treatment*, 28 ADDICTIVE BEHAVIORS 933-946 (2003).

²⁷ See L. Dickson, J.L. Derevensky & R. Gupta, *Youth Gambling Problems: The Identification of Risk and Protective Factors*, Report prepared for the Ontario Problem Gambling Research Centre, Ontario (2003); K. Hardoon, J.L. Dereven-

sky & R. Gupta, *An examination of the influence of familial, emotional, conduct and cognitive problems, and hyperactivity upon youth risk-taking and adolescent gambling problems*. Report prepared for the Ontario Problem Gambling Research Centre, Ontario (2002).

²⁸ See R. Gupta & J.L. Derevensky, *Personality characteristics and risk-taking among adolescent gamblers* (McGill University, 2003) (unpublished manuscript); Hardoon et al., *supra* note 26.

²⁹ See R. Gupta & J.L. Derevensky, *An empirical examination of Jacobs' General Theory of Addictions: Do adolescent gamblers fit the theory?* 14 JOURNAL OF GAMBLING STUDIES 17-49 (1998); Ste-Marie, R. Gupta & J.L. Derevensky, *Anxiety and social stress related to adolescent gambling behavior*, 2(1) INTERNATIONAL GAMBLING STUDIES 123-141 (2002).

³⁰ See Nower et al., *supra* note 20; F. Vitaro, F. Ferland, C. Jacques & R. Ladouceur, R., *Gambling, substance use, and impulsivity during adolescence*, 12(3) PSYCHOLOGY OF ADDICTIVE BEHAVIORS 185-194 (1998).

³¹ See J. AZMIER, *GAMBLING IN CANADA: TRIUMPH, TRAGEDY, OR TRADEOFF*. CANADIAN GAMBLING BEHAVIOR AND ATTITUDES (Canada West Foundation 2000).

³² See L. Dickson, J.L. Derevensky & R. Gupta, *The prevention of youth gambling problems: A conceptual model*, 18(2) JOURNAL OF GAMBLING STUDIES 97-160 (2002).

³³ See R.T.A. Wood, J.L. Derevensky, R. Gupta & M. Griffiths, *Accounts of the U.K. National Lottery and scratchcards: An analysis using Q-sorts*, 18(2) JOURNAL OF GAMBLING STUDIES 161-184 (2002).

³⁴ See Derevensky & Gupta, *supra* note 3; Gupta & Derevensky, *supra* note 29.

³⁵ See S. Fisher, *Gambling and pathological gambling in adolescents*, 9 JOURNAL OF GAMBLING STUDIES 257-288 (1993); Gupta & Derevensky, *supra* notes 25, 29; Jacobs, *supra* note 1; Wynne et al., *supra* note 13.

Gupta and Derevensky³⁶ reported that between grades 7–11, age 12–17, adolescents reported that past year and weekly gambling exceeded all other forms of addictive behavior including smoking, alcohol, and drug use. It is important to note that adolescent pathological gamblers often report starting gambling at the age of 9 or 10. This is not intended to suggest that young children are in fact sneaking into casinos or engaging in other regulated forms of gambling; rather many report that they receive lottery scratch cards as birthday gifts, for holidays and special occasions.³⁷ Consistent with current societal attitudes that gambling is a form of recreation, many adolescents report starting gambling for money with family members.³⁸ It is equally important to note that the majority of youth who engage in these behaviors will likely not experience any problems resulting from this activity. Nevertheless, age of onset appears to be an important predictor of future problems.

The fact that children as young as age 9 or 10 are gambling for money with family members is also consistent with the finding that by age 12, less than 10% of youth fear getting caught gambling by their parents.³⁹ Delaying the age of onset of gambling may in fact ultimately reduce the number of youth experiencing significant gambling problems given that there is ample research suggesting that delaying the age of onset for other addictive behaviors similarly reduces the risk for developing a serious addiction. The fact that we currently have very few early prevention programs addressing excessive gambling is also problematic and it has been argued that such prevention programs need to begin in the elementary/primary school grades.⁴⁰

Interestingly, a number of states (Arizona and Louisiana) in the U.S. have raised the minimum gambling age for casino playing from 18 to 21, primarily to be consistent with the legal age required for alcohol consumption. The Louisiana legislature went even further by raising the legal age to gamble on the state lottery and privately owned video poker machines to 21.⁴¹ In testimony before the legislative hearings, Dr. James Westphal, an expert from Louisiana, noted that although the 18–20 year old age group only comprised 8.2% of the adult population in Louisiana, it represented almost

three times (22.5%) the percentage of adults with significant gambling disorders. Confirmatory evidence comes from Audet, St-Laurent, Chevalier, Allard, Hamel, and Crépin,⁴² in Quebec who noted that 2.6% of youth age 18–24 in Quebec are problem gamblers (3.4% of individuals reporting gambling), representing the highest age group at risk of having a gambling problem. While 18–24 year olds represent 13.3% of the adult population in Quebec, 20.1% of the problem gamblers in the province are between age 18–24. If one examines only the adult gambling population, young adults age 18–24 represented 12.7% of the population yet comprise 20.4% (almost double) of the gambling population with a gambling problem. This age group is more likely to play cards, engage in multiple casino games, purchase sports lottery tickets, use a bookmaker for placing sports bets, and play Video Lottery Terminals. Also of importance is the finding that individuals do not develop a gambling disorder after a single episode of gambling. Rather, this is a progressive disorder over time. As such, if individuals as young as 18 years old are experiencing significant problems they must have begun their gambling at a much younger age.⁴³

TECHNOLOGY AND YOUTH GAMBLING

Aided by technological advances including the use of video-game technology, on-line gam-

³⁶ Gupta & Derevensky, *supra* note 3.

³⁷ See J. Felsher, J.L. Derevensky & R. Gupta, *Lottery playing amongst youth: Implications for prevention and social policy*, JOURNAL OF GAMBLING STUDIES (in press).

³⁸ See Gupta & Derevensky, *supra* note 25.

³⁹ See *id.*

⁴⁰ See J.L. Derevensky, R. Gupta, L. Dickson & A-E Deguire, A-E, *Prevention Efforts Toward Minimizing Gambling Problems*, Report prepared for the National Council for Problem Gambling, Center for Mental Health Services (CMHS) and the Substance Abuse and Mental Health Services Administration (SAMHSA), Washington, D.C. (2001).

⁴¹ See Rose, *supra* note 2.

⁴² C. AUDET, D. ST-LAURENT, S. CHEVALIER, D. ALLARD, D. HAMEL & M. CREPIN, ÉVALUATION DU PROGRAMME EXPERIMENTAL, SUR LE JEU PATHOLOGIQUE RAPPORT 7—MONITORAGE EVALUATIF-INDICATEURS D'IMPLANTATION—DONNEES RETROSPECTIVES (Institut national de santé publique du Québec, 2003).

⁴³ See AUSTRALIAN PRODUCTIVITY COMMISSION, AUSTRALIA'S GAMBLING INDUSTRIES (Canberra, Australia, 1999).

bling, electronic gambling machines, interactive television and telephone wagering, and interactive CD-ROM lotteries, gaming has become even more appealing to a technologically savvy and sophisticated population.⁴⁴ Internet gambling in particular allows players to participate in a number of casino-type games in the privacy of their own homes, without direct parental supervision and strict controls concerning entry into this gambling environment. There are no security people checking identification and/or age of participation with most Internet gambling websites being housed in off-shore operations.⁴⁵

The proliferation of online gambling sites poses a new problem for youth. Researchers have highlighted the ease with which gambling websites may be accessed by young people as well as the visually enticing aspects of Internet gambling.⁴⁶ Many gambling websites offer free games and free practice sites as well as financial rewards and incentives which are all available to anyone with access to a computer and the Internet. Sites now appear to be highly appealing to adolescents and young adults offering a multitude of games including blackjack, roulette, slots, poker, and other casino games virtually identical to real life casinos while incorporating videogame technology. Other sites offer sports betting, another attractive activity for adolescents. Some early research suggests that youth who play videogames excessively gamble more than those who play infrequently.⁴⁷ While videogames appear random, their underlying heuristics enable youth to continuously improve their score and reach higher levels. However games of chance are truly random. While one improves performance outcomes when playing videogames, with gambling the more one plays the more one loses. Early speculation is that there may be an inappropriate transfer of learning taking place whereby adolescents believe that they can control totally random events. With new sites appearing daily, researchers suspect that the distinction between gambling and gaming may become blurred by the online gambling industry in order to maximize future profits.⁴⁸ Such games include sophisticated graphics, colorful and realistic sounds and images, and enhanced excitement. Even when playing on practice sites without money, adolescents report that it is engaging, exciting, and exhilarating.⁴⁹

While little is currently known about the number of young people actually accessing gambling Internet sites it is clear that more and more youth are accessing and playing games on the Internet. Research by Willms and Corbett⁵⁰ suggested that upwards of 48% of youth age 15 are playing a variety of games on the Internet. Griffiths⁵¹ in a small study of youth age 15 to 19 years (N = 119) reported that while none had actually gambled on the Internet, 4% of youth indicated that they would like to try it. Recent data by Hardoon et al.⁵² revealed that 25% of adolescents with serious gambling problems and 20% of those at-risk for a gambling problem may be playing online gambling type games using so-called "practice sites" where no money is needed to play. Such practice sites expose youth to adult games, encouraging them to practice and perhaps move to "for money" online casinos. It may be that amongst individuals at risk for developing a gambling problem, the Internet presents a special danger.⁵³

Adolescents appear particularly vulnerable to the appeal of Internet gambling as they find gambling enjoyable, are particularly attracted to the colorful, fast-paced videogame-like qualities, view themselves as highly intelligent, and perceive themselves as invulnerable to a gambling problem. These factors, coupled with

⁴⁴ See M.D. Griffiths, & R. Wood, *Risk factors in adolescence: The case of gambling, videogame playing, and the Internet*, 16 JOURNAL OF GAMBLING STUDIES 199-225 (2000).

⁴⁵ See R. KELLEY, P. TODOSICHUK & J.J. AZMIER, *GAMBLING@HOME: INTERNET GAMBLING IN CANADA* (Gambling in Canada Research Report No. 15) (Canada West Foundation, 2001).

⁴⁶ See M.D. Griffiths, *The acquisition, development, and maintenance of fruit machine gambling in adolescents*, 6(3) JOURNAL OF GAMBLING STUDIES 193-204 (1990); Griffiths & Wood, *supra* note 44.

⁴⁷ See R. Gupta & J.L. Derevensky, *The relationship between gambling and video game playing behavior in children and adolescents*, 12(4) JOURNAL OF GAMBLING STUDIES 375-394 (1996).

⁴⁸ See C. Messerlian, A. Byrnes & J.L. Derevensky, *Gambling, youth and the Internet: Should we be concerned?* CANADIAN CHILD AND ADOLESCENT PSYCHIATRY REVIEW (in press).

⁴⁹ See Hardoon et al., *supra* note 26.

⁵⁰ J.D. Willms & B.A. Corbett, *Tech and teens: Access and use*, 69 CANADIAN SOCIAL TRENDS 15-20 (2003).

⁵¹ M.D. Griffiths, *Why don't adolescent gamblers seek treatment?* ELECTRONIC JOURNAL OF GAMBLING ISSUES 5 (2001).

⁵² Hardoon et al., *supra* note 27.

⁵³ See Messerlian et al., *supra* note 48.

their experience playing on Internet gambling free practice sites makes them prime targets as future players. Internet casino sites (often referred to as properties) also have reward, loyalty programs which may be enticing to youth. Such programs include earning redeemable *comp* points through playing (Peak Entertainment which owns five sites enables players to earn comp points interchangeably on all their sites); high initial deposit bonuses (with some sites including 100% match bonus dollars); returning player bonuses of up to \$20 per month; *Refer-A-Friend* bonuses as high as \$50; 10% bonuses for wire transfers of funds, certified check and money orders; and some sites even provide "Bettor's Insurance" programs which returns 10% of net gaming losses.⁵⁴ Fortunately, such sites require a credit card in order to wager, and few adolescents currently possess a credit card. Are these sites training a new breed of gamblers? Only time will tell, as regulation of these sites continues to be highly problematic.

YOUTH GAMBLING: SOME MENTAL HEALTH AND BEHAVIORAL PROBLEMS

Mental health professionals are only beginning to fully recognize the magnitude and impact of problem gambling amongst teens. Awareness of the risks and harm associated with gambling problems in youth and the public at-large is lacking. There is a growing need to examine and respond to gambling problems in adolescents from a prevention and public health orientation.

A gambling disorder is often referred to as a *hidden addiction*. This may be even more true for adolescents with a gambling disorder as they infrequently embezzle or steal excessively large sums of money (they don't have access to large sums of funds), they do not lose their jobs (most are still in school), they are not evicted for failure to pay rent (most live at home with their parents), and their spouse does not threaten to leave because of gambling debts (for the most part they are not married). Nevertheless, they engage in multiple forms of illegal activities to acquire money to continue their gambling. The majority of these youth initially report using their allowance money or

money earned from part-time or summer employment, which ultimately leads to selling personal possessions, and stealing from parents, siblings, or other relatives in order to gamble.⁵⁵ While this can be viewed as petty crime some of the clients have reported stealing large sums of money over time with one adolescent client in the McGill University Research and Treatment Clinic reporting embezzling \$9,000 from his parent's bank account. Others report having stolen thousands of dollars from their parents, siblings, and other relatives. One client, when asked whether or not he felt any remorse about stealing from family members responded, "Yes, it's nothing personal, I just needed the money." After these avenues are depleted some adolescents turn to bookmakers as they offer credit, others begin stealing money or items (which can eventually be sold for cash to gamble) outside of the home.

GAMBLING AND CRIMINAL BEHAVIOR

The connection between gambling and crime has been well-documented with adult gambling-related criminal offenses typically including fraud, theft, fencing stolen goods, embezzlement, tax fraud and evasion, forgery, selling drugs, and counterfeiting.⁵⁶ Prevalence rates for adults who report committing an illegal act to finance their gambling generally fall between 65–89%.⁵⁷ Meyer⁵⁸ reported that 45.5% of pathological gamblers committed crimes solely for the purpose of financing their gambling, 35% had altercations necessitating police/legal intervention, and 28.3% have been convicted for a crime at least once. For incar-

⁵⁴ See Gambling Online, *Top rewards program: Peak Entertainment*, GAMBLING ONLINE, THE YEARBOOK EDITION 36 (2003).

⁵⁵ See Gupta & Derevensky, *supra* note 21.

⁵⁶ See P. Crofts, *Problem gambling and property offences: An analysis of court files*, 3(2) INTERNATIONAL GAMBLING STUDIES 183–198 (2003); R. Ladouceur, J. M. Boisvert, M. Pèpin, M. Loranger & C. Sylvain, *Social cost of pathological gambling*, 10(4) JOURNAL OF GAMBLING STUDIES 399–409 (1994).

⁵⁷ See Ladouceur et al., *supra* note 56; H. R. Lesieur, *Compulsive gambling*, 29(4) SOCIETY 43–50 (1992); G. Meyer, *Pathological gambling and criminal behavior*, Paper presented at the International Conference on Gambling and Risk Taking, Montreal (1997).

⁵⁸ Meyer, *supra* note 57.

cerated adults, 97% of the pathological gamblers reported committing illegal acts to finance gambling or pay gambling-related debts.

While research has been conducted on adult crime/incarceration and its relationship to problem gambling, only a small number of studies have measured gambling behavior among incarcerated adolescents.⁵⁹ Incarcerated adolescents represent a particularly high-risk population for gambling problems,⁶⁰ a population which has been generally ignored for their gambling problems. Prevalence rates of problem gambling were found to increase dramatically for incarcerated adolescents, with 21% of these youth being identified as a problem gambler and 18–38% displaying pathological gambling symptomology.⁶¹ These rates are up to nine times the prevalence of pathological gamblers in the general adolescent population, and 20+ times that of the adult general population of pathological gamblers (1–3%). Furthermore, while males and females in the general adolescent population typically differ on the amount of money wagered, self-esteem, mood levels (happiness and depression), and sensation seeking, male and female incarcerated adolescents failed to differ significantly on these measures.⁶²

Few studies have empirically examined and documented adolescent gambling-related criminal behavior in the general adolescent population. In two separate studies,⁶³ specific questions were asked related to whether criminal acts were committed for the purpose of financing adolescents' gambling. Yeoman and Griffiths⁶⁴ reported that in 3.9% of the juvenile cases the offense was gambling-related. Of these, 86% involved theft or burglary, 7% involved missing persons, 5.5% involved criminal damage, and one case involved domestic dispute. Huxley and Carroll⁶⁵ found that 12% of adolescents reported stealing money from parents, 5% noted stealing money from outside the home, and 6% sold other people's possessions in order to finance their gambling problem. It is important to note that Derevensky and Gupta⁶⁶ reported that 42.4% of adolescent problem and pathological gamblers indicated borrowing or stealing money in order to cover gambling debts; 21% either committed or seriously considered committing illegal acts to finance their gambling; 24% had taken money

from their family without their knowledge; and 12% had stolen from outside the family.

Adolescent gamblers are more likely to participate in or have a history of committing delinquent or illegal acts, particularly those with a serious gambling problem.⁶⁷

In particular, the frequency and amount of money spent on gambling activities seem to be relevant predictors of delinquent activities.⁶⁸ Although these youth may not have been in contact with the juvenile justice system or been specifically asked why their illegal acts were committed, it is plausible that these acts are connected in some way to help finance their gambling.

Blaszczynski and Silove⁶⁹ have suggested that adolescents likely commit criminal acts more frequently because they have more peer pressure and have less available financial resources. As pathology increases, so does the need for money, with many criminal acts being committed for the sole purpose of financing their gambling addiction.⁷⁰ The need to participate at higher levels of gambling behavior (i.e., increased frequency) to obtain the de-

⁵⁹ See J.L. Derevensky & R. Gupta, Pathological gambling problems among a population of delinquent adolescents, National Conference on Compulsive Gambling, Las Vegas, Nevada (1998); T. Maden, M. Swinton & J. Gunn, *Gambling in young offenders*, 2 CRIMINAL BEHAVIOR AND MENTAL HEALTH 300-308 (1992); J.R. Westphal, J.A. Rush, L. Stevens & L.J. Johnson, *Gambling behavior of adolescents in residential placement in northwest Louisiana*, 91(11) SOUTHERN MEDICAL JOURNAL 1038-1041 (1998).

⁶⁰ See Westphal et al., *supra* note 59.

⁶¹ See Derevensky & Gupta, *supra* note 59; Westphal et al., *supra* note 59.

⁶² See Derevensky & Gupta, *supra* note 59.

⁶³ See J. Huxley & D. Carroll, D., *A survey of fruit machine gambling in adolescents*, 8(2) JOURNAL OF GAMBLING STUDIES 167-179 (1992); J. Yeoman & M.D. Griffiths, M. D., *Adolescent machine gambling and crime*, 19 JOURNAL OF ADOLESCENCE 99-104 (1996).

⁶⁴ Yeoman & Griffiths, *supra* note 63.

⁶⁵ Huxley & Carroll, *supra* note 63.

⁶⁶ Derevensky & Gupta, *supra* note 12.

⁶⁷ See Fisher, *supra* note 35; Griffiths, *supra* note 46; Ladouceur & Mireault, *supra* note 13; Lesieur & Klein, *supra* note 5; Winters & Anderson, *supra* note 22; Wynne et al., *supra* note 13; Yeoman & Griffiths, *supra* note 63.

⁶⁸ See Fisher, *supra* note 35; Huxley & Carroll, *supra* note 63.

⁶⁹ A.P. Blaszczynski & D. Silove, *Pathological gambling: Forensic issues*, 30(3) AUSTRALIAN AND NEW ZEALAND JOURNAL OF PSYCHIATRY 358-369 (1996).

⁷⁰ See M. Dickerson, *Gambling: A dependence without a drug*, 1 INTERNATIONAL REVIEW OF PSYCHIATRY 157-172 (1989).

sired level of excitement often necessitates increased wagers, which results in a vicious cycle. As the probability of winning remains low, in order to increase one's level of excitement, increased wagers generally results in increased criminal behavior to acquire funds for gambling.

YOUTH GAMBLING: SOME SOCIAL POLICY ISSUES

There remains little doubt that adolescents constitute a particularly high-risk group for acquiring a gambling problem given their high rates of risk-taking, their perceived invulnerability, their lack of recognition that gambling can lead to serious problems, the ease and accessibility of gambling venues, the increasingly technological forms of gambling, and the social acceptability and glamorization of gambling throughout the world. It is important to note that gambling issues cut across a number of public health policy domains: social, economic, health, and justice, and is only beginning to emerge as an important social policy issue. Given that it takes several years to develop a significant gambling problem (the downward spiral presented in Lesieur's⁷¹ work), the true social impact upon youth will likely take years to realize. Equally important is that under most governmental statutes children and adolescents are prohibited from engaging in legalized/regulated forms of gambling. Yet, we know that most youth have little difficulty accessing and engaging in most forms of gambling.⁷² A concerted effort must therefore be made to ensure that existing statutes are adhered to, with steep fines and penalties for operators and vendors violating such laws. Where such laws are non-existent, government legislatures are strongly urged to initiate strong legislative statutes. In recent years it has been encouraging to see industry representatives working closely with researchers, treatment providers, and prevention specialists in attempting to limit the negative consequences associated with problem gambling.

While we know that excessive gambling behaviors are associated with criminal acts,⁷³ what type of gambling behavior is more likely to promote criminal behaviors remains unknown. The

fact that many young problem gamblers reach the point where they steal from family to support their habit is in contrast to a smaller number who steal from outside the home.⁷⁴ Stealing from inside versus outside the home may be a key distinction between adolescents who have not been involved with the juvenile justice system since family members are more likely to bail out their children and less likely to report them to law enforcement officials than adolescents stealing from strangers. How do these two populations differ? Does the type of gambling behavior differ? Clinical evidence seems to suggest that while some youth stop gambling when their access to funds is depleted others will continue stealing both within and outside the home. More research is needed to uncover how and why this transition takes place.

CONCLUSIONS

Adolescence is a time of egocentrism, testing boundaries, and societal restrictions including participation in risky and potentially problematic behaviors. Given adolescent pathological gambling prevalence rates are higher than adult pathological gambling prevalence rates, there is an assumption that adolescents will "mature out" of this behavior. However, clinical evidence suggests that excessive gambling results in many long-term negative consequences; many of which are extraordinarily difficult to overcome (e.g., dropping out of school, criminal records, severed relationships with parents, family members, and friends) and result in mental health and behavioral problems.⁷⁵ The short and long-term consequences to the individual, his/her family, friends, and peers can be devastating. Problematic gambling during adolescence remains a growing

⁷¹ H.R. LESIEUR, *THE CHASE: CAREER OF THE COMPULSIVE GAMBLER* (Schenkman Books, Inc., 1977).

⁷² See J. Felsher, J.L. Derevensky & R. Gupta, *Parental influences and social modeling of youth lottery participation*, 13 *JOURNAL OF COMMUNITY AND APPLIED SOCIAL PSYCHOLOGY* 1-17 (2003).

⁷³ See Huxley & Carroll, *supra* note 63.

⁷⁴ See S. Fisher, *Measuring pathological gambling in children: The case of fruit machines in the UK*, 8 *JOURNAL OF GAMBLING STUDIES* 263-285 (1992); Huxley & Carroll, *supra* note 63.

⁷⁵ See Gupta & Derevensky, *supra* note 21

social and public health issue with serious psychological, sociological, and economic implications. While the incidence of severe gambling problems amongst youth remains relatively small, the number of individuals with severe gambling problems combined with those at risk for a gambling problem is substantial. The devastating long-term consequences for those youth with gambling problems, their families, and friends are enormous.

Until recently, gambling problems have not been viewed as a public health problem⁷⁶ or public policy issue but rather as a personal or individual problem.⁷⁷ New research has expanded our knowledge of gambling problems and its societal impact, with legislators being forced to carefully examine the social and financial costs associated with gambling expansion as well as assessing the accrued financial benefits.⁷⁸

From a social policy perspective, legislatures and regulatory bodies have the ability to determine suitable forms of gambling, to raise the legal age for government regulated forms of gambling, and have the ability to enforce current statutes yet their frequent failure to take a proactive stance is of concern. For example, there is clear evidence that underage youth have very little difficulty in purchasing lottery tickets. In a survey of 1072 adolescents, Felsher, Derevensky and Gupta⁷⁹ reported that 54.2% of underage adolescents played scratch tickets, 22.4% played lottery draws (6/49, etc.) and 14.8% played the sports lottery (*Sports Select*) (in Ontario, wagering on sports events is legal through the provincial lottery corporation). Overall, these adolescents reported beginning to play the lottery to win money (65%), because their parents play (48%), for enjoyment (38%), excitement (31%), and curiosity (28%), with similar reasons being cited for maintaining their playing behavior. Other studies reveal little difficulty by adolescents in gaining access to gambling venues in spite of legal prohibitions.⁸⁰ In discussion with several state and provincial lottery directors and representatives they frequently report that few if any vendors have been fined or had their licenses temporarily or permanently suspended. As well, several states have installed instant scratch lottery

vending machines with little or no supervision as to who uses these machines.

Current research efforts have been focused upon basic issues of assessment of gambling severity; the identification of physiological, psychological and socio-emotional mechanisms underlying excessive gambling behavior among youth; understanding why some individuals continue to gamble in spite of repeated losses; and how to best educate, prevent, and treat these problems. There remains little doubt that gambling amongst youth remains an important area in need of further basic and applied research, additional funding, and responsible social policy development.

The field of youth gambling is relatively new and as a result there currently are significant gaps in our knowledge. A better understanding of the effects of accessibility and availability of gaming venues on future gambling behaviors is required. Adolescent pathological gamblers, like their adult counterpart, continue to chase their losses, have a preoccupation with gambling, have an impaired ability to stop gambling in spite of repeated attempts and their desire to do so, and frequently get involved in delinquent criminal behavior to support their gambling. This behavior continues independent of the accompanying negative consequences and ensuing problems. Stricter enforcement of current statutes and innovative way of protecting our youth are necessary. Regulatory boards and government legislatures would be well advised to take this issue seriously.

⁷⁶ See D.A. Korn & H.J. Shaffer, *Gambling and the health of the public: Adopting a public health perspective*, 15(4) *JOURNAL OF GAMBLING STUDIES* 289-365 (1999).

⁷⁷ See K. Whyte, *A public policy response to problem gambling*, in *GAMBLING: WHO WINS? WHO LOSES?* (G. REITH, ED., 2003).

⁷⁸ See NATIONAL INSTITUTE OF ECONOMIC AND INDUSTRY RESEARCH, *THE ECONOMIC IMPACT OF GAMBLING: A REPORT FOR THE CASINO COMMUNITY BENEFIT FUND* (New South Wales, July 2003).

⁷⁹ Felsher et al., *supra* note 72.

⁸⁰ See Jacobs, *supra* note 1.

ADDITIONAL REFERENCES

- Dickson, L., Derevensky, J. L., & Gupta, R. (in press). Harm reduction for the prevention of youth gambling problems: Lessons learned from adolescent high-risk prevention programs. *Journal of Adolescent Research*.
- Messerlian, C., Derevensky, J. L., & Gupta, R. (2003). *A public health perspective for youth gambling: A prevention and harm minimization framework*. McGill University: Unpublished manuscript.
- Meyer, G., & Stadler, M. A. (1999). Criminal behavior associated with pathological gambling. *Journal of Gambling Studies*, 15(1), 29-43.