

Youth Gambling and Delinquency: Legislative and Social Policy Implications

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THE HISTORY OF GAMBLING in countries worldwide has been characterized by multiple cycles, spanning the gamut from proscription to propagation. In the last century alone, gambling has transitioned from being considered a sinful, immoral pursuit and stigmatized criminal activity to its current position as a socially acceptable form of recreation. Periodic amendments to legislation and social policy changes from prohibition towards sponsorship or regulation of games of chance, combined with a widespread promotion of game offerings, have largely contributed to this shift in public attitudes towards gambling.

While these changes have all played a prominent role in the exponential growth of the industry and in the increase of gambling's popularity, there is abundant evidence to suggest that with it have also come a number of subsequent problems for certain individuals as well as societal costs. For a small proportion of the population, gambling can progress from a socially acceptable form of entertainment to a more serious problem characterized by a maladaptive loss of control over and a preoccupation with wagering activities.¹ Concomitant to this inability to control one's gambling, a number of physical, mental health, personal, and social consequences associated with gambling problems have been observed for individuals, families, and entire communities. These consequences include: a) significant financial problems (e.g., high debt, personal bankruptcy filing); b) comorbid substance use problems and psychiatric con-

ditions (e.g., depression, anxiety); c) disruption of family relationships and violence; d) criminal behaviour to finance wagering activities (e.g., fraud, theft, embezzlement), and e) work and school-related problems (e.g., loss of employment, truancy).² Of particular concern is that certain populations have been identified as being at high risk for gambling problems and their related consequences, with adolescents and young adults especially vulnerable.

THE CURRENT LANDSCAPE OF GAMBLING

On an international level, the past twenty years have witnessed a liberalisation of the operation and regulation of gaming activities. Concomitant with this liberalisation has been a marked expansion of new and existing forms of gambling, leading to a significant increase in availability of gambling opportunities for individuals. Once restricted to major international gambling destinations (e.g., Las Vegas, Atlantic City, Monte Carlo, Macau), recent estimates reveal that over 440 commercial land-based casinos are operating in 13 U.S. states, with approximately 1,070 more in operation in numerous European countries, and a rapid expansion of casino operations in Australasia.³ Moreover, despite the recent global

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¹American Psychiatric Association, *DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS* 671–674 (4thed. text rev. 2000).

²David A. Korn & Howard J. Shaffer, *Gambling and the Health of the Public: Adopting a Public Health Perspective*, 15 *JOURNAL OF GAMBLING STUDIES* 289, 323–324 (1999).

³AMERICAN GAMING ASSOCIATION, *STATE OF STATES: THE AGA SURVEY OF CASINO ENTERTAINMENT* 4 (2010), available at http://www.americangaming.org/assets/files/State_of_the_States_2010_FINAL.pdf; FINANCIAL ACTION TASK FORCE, *VULNERABILITIES OF CASINOS AND GAMING SECTOR* 69–79, available at <http://www.fatf-gafi.org/dataoecd/47/49/42458373.pdf>.

economic crisis and declining casino revenues at some major U.S. gambling destinations,⁴ multiple new venues have opened in several North American districts, and international jurisdictions are currently contemplating the introduction or expansion of casino gaming in an effort to generate public funds, stimulate economic development, and create stable employment opportunities.⁵

The expansion of the gaming industry, however, has not been restricted to casinos. Today, most industrialized jurisdictions license, organize, regulate, operate, or own at least one type of gambling activity, with only a minority of states and countries that continue to strictly prohibit any form of gambling. Some of the more popular forms of government-sponsored or government-regulated gambling include electronic gambling machines, lottery draws and instant scratch cards, pari-mutuel wagering, sports wagering and a rapid expansion of Internet wagering. Nevertheless, even in jurisdictions where legalized/regulated gambling is prohibited or limited, unlicensed betting activities such as card games, sports pools, and illegal electronic gaming machines continue to multiply at an impressive rate.

With the advent of new emerging technologies, such as Internet and mobile (remote) wagering, the environmental landscape of gambling possibilities is undergoing a momentous and unparalleled growth worldwide. Despite its legal prohibitions in some jurisdictions, recent estimates suggest that upwards of 23 million people worldwide wagered on the Internet in 2005.⁶ Remote wagering is an attractive gaming choice for many consumers, given that individuals can gamble on a multitude of casino style games, poker, and sports wagering, all conveniently from the comfort of their home or workplace. In addition to the convenience of remote wagering, Internet and mobile gambling allows users to place multiple types of wagers and to participate in gambling both in isolation and anonymously.⁷ As a result of minimal operating costs and enormous competition for clientele, remote gaming opportunities have the potential to offer enhanced advantageous payout rates and bonuses compared with traditional land-based counterparts, thereby representing another appealing feature for players.⁸ Further, unlike land-based gambling venues, several online and mobile gambling websites offer “practice” or “trial” modes for gamblers, allowing the individual to sample a multiplicity of games of chance without having to spend actual money. Although these practice modes are not con-

sidered gambling *per se*, their availability to players remains an attractive aspect of remote wagering, particularly since they are reported as being useful for learning to manage risk, for improving gambling skills, and for enhancing confidence about gambling for real money.⁹ Given the consumer appeal of remote wagering, coupled with the relative accessibility of the Internet and mobile/smart telephones and the substantial increase in individual technological savvy, it is not surprising that its growth rate has far exceeded that of land-based gambling. Recent estimates place the expansion of Internet gambling at about four times as fast as land-based gambling¹⁰ and forecasts predict total mobile gambling wagers to exceed 48 billions dollars annually by 2015.¹¹

Along with the impressive growth and propagation of land-based gambling and remote wagering has been a significant increase in the marketing of game offerings and gambling opportunities. To maximize the industry’s business objectives, gaming/gambling corporations have expanded internationally and actively promote their game offerings on the radio, on television, in print, via Internet pop-up messages, at points of sale, and in public advertising spaces. Typically, these gambling opportunities emphasize the glamour, excitement and entertainment aspects. Moreover, despite the existence of mandated or recommended codes of

⁴AMERICAN GAMING ASSOCIATION, *supra* note 3, at 2.

⁵Peter T. Calcagno, Douglas M. Walker, & John D. Jackson, *Determinants of the Probability and Timing of Commercial Casino Legalization in the United States*, 142 PUBLIC CHOICE 69, 70–72 (2010).

⁶AMERICAN GAMING ASSOCIATION, *Industry Information Fact Sheets: Internet Gambling* (2006), <http://www.american-gaming.org/industry.factsheets>.

⁷Mark D. Griffiths & Jonathan Parke, *Adolescent Gambling on the Internet: A Review*, 22 INTERNATIONAL JOURNAL OF ADOLESCENT MEDICINE AND HEALTH 59, 59 (2010).

⁸ROBERT J. WILLIAMS & ROBERT T. WOOD, *INTERNET GAMBLING: A COMPREHENSIVE REVIEW AND SYNTHESIS OF THE LITERATURE* 21 (Ontario Problem Gambling Research Centre, 2007).

⁹Eric Meerkamper, *Youth Gambling 2.0: Understanding Youth Gambling, Emerging Technologies, and Social Platforms*, paper presented at the Nova Scotia Gaming Corporation 6th Annual Responsible Gambling Conference, Halifax, Nova Scotia (October 2010).

¹⁰Pedro Raventós & Sandro Zolezzi, *Sportsbooks and Politicians: Place your Bet!* 64 JOURNAL OF BUSINESS RESEARCH 299, 300 (2009).

¹¹WINDSOR HOLDEN, *GOOD ODDS FOR MOBILE GAMBLING* 3 (Juniper Research, 2010), <http://juniperresearch.com/shop/products/whitepaper/pdf/Mobile%20Gambling%20Whitepaper.pdf>.

practice related to responsible advertising in a number of jurisdictions, industry advertisements generally make few references to accurate probabilities of winning or to the possible negative consequences associated with gambling (albeit some will include hotline telephone numbers or messages such as “keep it a game”).¹² It is also of interest that within the United States, state lottery corporations are exempt from the Federal truth in advertising statutes. Given marketing’s widely acknowledged influence on consumers’ attitudes and beliefs, it has been suggested that the glamorous and positive portrayals of gaming in advertisements may possibly foster erroneous beliefs that individuals possess exaggerated odds or skills for winning and that gambling behaviour will result in the attainment of a similar lifestyle without much work.¹³ However, corporate advertisements aren’t the only marketing agents that have positioned gambling at the forefront of public attention. Within the past few years, local and cable television networks have launched regular broadcasting of “professional” high-stakes poker tournaments, further glamourizing gambling to the general public. Additionally, sponsored online poker tournaments have been heavily advertised by representatives on college campuses targeting the student body, with small and/or large scholarships awarded to winners.¹⁴ Recently, one U.S.-based company set up an online website whereby students could wager on grades attained in their college and university courses.¹⁵ Similar to corporate advertisements, exposure to gambling television shows and sponsored poker tournaments is speculated to have an impact on individuals’ gambling attitudes and beliefs. In a recent study, Lee, Lemanski and Jun¹⁶ noted that exposure to television poker shows led to positive attitudes towards gambling-related media, which ultimately led to greater intentions to gamble. The proliferation of gambling advertisements and increase in media exposure has resulted in the normalization of gambling as an attractive, harmless and socially acceptable form of entertainment.

Considering this vast global expansion and active promotion, the current generation of adolescents and young adults have lived their entire lives in an environment where gambling has not only been legal, normalized, and easily accessible, but also popular and often endorsed by both governments (who frequently are not only the regula-

tor but also an operator) and industry. Coupled with the fact that most parents do not perceive gambling as a serious issue for youth and identify few potential harms associated with gambling for their children,¹⁷ it is not surprising that gambling has become an alluring activity for adolescents and young adults.¹⁸

YOUTH GAMBLING: OUR PRESENT STATE OF KNOWLEDGE

Previously considered an adult activity, it is now well established that gambling constitutes a popular activity and form of recreation among youth. Although there are notable jurisdictional differences in legislation and policies for restricting underage access to government-sponsored or government-regulated gaming offers where gambling is sanctioned, there remains little doubt that adolescents and young adults participate in multiple forms of

¹²Sally M. Monaghan & Jeffrey Derevensky, *An Appraisal of the Impact of the Depiction of Gambling in Society on Youth*, 6 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 537, 537 (2008).

¹³Jeffrey Derevensky, Alyssa Sklar, Rina Gupta, & Carmen Messerlian, *An Empirical Study Examining the Impact of Gambling Advertisements on Adolescent Gambling Attitudes and Behaviours*, 8 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 21, 22 (2010).

¹⁴Thomas W. Hardy, *A Minute to Learn and a Lifetime to Master: Implications of the Poker Craze for College Campuses*, 113 NEW DIRECTIONS FOR STUDENT SERVICES 33, 36–37 (2006).

¹⁵Stephanie Banchemo, “Wager 101: Students Bet on Their Grades,” *N.Y. Times*, Aug. 19, 2010, <http://online.wsj.com/article/SB10001424052748703824304575435494221610702.html>

¹⁶Hyung-Seok Lee, Jennifer L. Lemanski, & Jong W. Jun, *Role of Gambling Media Exposure in Influencing Trajectories Among College Students*, 24 JOURNAL OF GAMBLING STUDIES 25, 34 (2008).

¹⁷N. Will Shead, Jeffrey L. Derevensky, & Eric Meerkamper, *Your Mother Should Know: A Comparison of Maternal and Paternal Attitudes and Behaviors Related to Gambling among Their Adolescent Children*, INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION (July 27, 2010), <http://www.springerlink.com/content/d1213k888545k112/fulltext.pdf>; Colin Campbell, Jeffrey Derevensky, Eric Meerkamper, & Joanna Cutajar, *Parents’ Perceptions of Adolescent Gambling: A Canadian National Study*, JOURNAL OF GAMBLING ISSUES (forthcoming).

¹⁸Durand F. Jacobs, *Youth Gambling in North America: Long-Term Trends and Future Prospects*, in GAMBLING PROBLEMS IN YOUTH: THEORETICAL AND APPLIED PERSPECTIVES 1, 2 (Jeffrey L. Derevensky & Rina Gupta eds., 2004).

both unlicensed and regulated forms of gambling.¹⁹ Numerous studies assessing the prevalence of gambling involvement and identifying adolescent gambling patterns have been conducted in several North American, European, and Australasian jurisdictions since the beginning of the 1990s. While these figures represent only a general evaluation of gambling involvement, estimates of youth past-year and lifetime gambling range between 35% and 92%. The wide range and discrepancy in estimates for past-year and lifetime participation rates is partially explained by differences in the data collection period, in the age and gender distribution of the youth surveyed, in methodology, and in the availability of gambling opportunities in jurisdiction where the studies were completed. These differences notwithstanding, overall, the data clearly suggests that a large majority of adolescents and young adults have engaged in some form of gambling in their lives, with an identifiable proportion of them gambling for money on a regular basis.²⁰

Albeit for many adolescents and young adults, gambling is an occasional recreational activity, evidence from the collection of international prevalence studies and large-scale meta-analyses reveals that an identifiable proportion of youth experience serious gambling-related negative consequences. Regardless of a lack of consensus as to the actual prevalence of severe gambling problems, current estimates suggest that approximately 0.3–10% of adolescents and young adults meet criteria for problem gambling, with another 8–14% at risk for developing or returning to a severe gambling problem.²¹ Given that prevalence rates of problem gambling for adult populations are established as somewhat lower (0.4–4.7%),²² it is clear that adolescents and young adults, in general, constitute a high-risk population for gambling problems. Most prevalence studies with adults further reveal that younger adults (between ages 18 and 30) have the highest prevalence rates among the adult population.²³

Available research seems to suggest that gambling preferences varies according to age, developmental stage, gender, and availability of activities. The most popular adolescent gambling activities tend to be self-organized or peer-related games. These include wagering on non-casino card (poker being the current rage) and dice games, playing bingo in bingo halls, as well as wagering on sports or games of personal skill.²⁴ Other betting activities that adolescents are likely to take part in include lot-

tery draws and scratchcards.²⁵ Conversely, older adolescents tend to prefer age-restricted forms of gambling as this group approaches legal age, likely as a result of their greater accessibility to these opportunities and venues as well as their superior financial resources.²⁶ In general, the preferred activities of young adults include casino gambling, lottery draws, sports wagering, card playing, and electronic gaming machines, with a growing number engaging in a multitude of gambling activities over the Internet.²⁷ Most recently, monthly use of

¹⁹See Durand F. Jacobs, *supra* note 18, at 2–4; National Research Council, *Pathological Gambling: A Critical Review* 84–85 (National Academy Press, 1999); Rachel A. Volberg, Rina Gupta, Mark D. Griffiths, Daniel T. Ólason, & Paul Delfabbro, *An International Perspective on Youth Gambling Prevalence Studies*, 22 *INTERNATIONAL JOURNAL OF ADOLESCENT MEDICINE AND HEALTH* 3, 3 (2010).

²⁰Jeffrey Derevensky, *Gambling Behaviors and Adolescent Substance Abuse Disorders*, in *ADOLESCENT SUBSTANCE ABUSE: PSYCHIATRIC COMORBIDITY AND HIGH RISK BEHAVIORS* 403, 404 (Yifrah Kaminer & Oscar G. Bukstein eds., 2008); John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman, *The Prevalence of Problem Gambling Among U.S. Adolescents and Young Adults: Results from a National Survey*, 24 *JOURNAL OF GAMBLING STUDIES* 119, 125–126 (2008); John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman, *The Association of Form of Gambling with Problem Gambling Among American Youth*, 23 *PSYCHOLOGY OF ADDICTIVE BEHAVIORS* 105, 107–109 (2009).

²¹See Durand F. Jacobs, *supra* note 18, at 8–11; Rachel A. Volberg, Rina Gupta, Mark D. Griffiths, Daniel T. Ólason, & Paul Delfabbro, *supra* note 19, at 4–20.

²²Stephanie Stuckie & Margret Rihs-Middel, *Prevalence of Adult Problem and Pathological Gambling between 2000 and 2005: An Update*, 23 *JOURNAL OF GAMBLING STUDIES* 245, 251 (2008).

²³Howard J. Shaffer, Matthew N. Hall, & Joni Vander Bilt, *Estimating the Prevalence of Disordered Gambling Behaviour in the United States and Canada: A Research Synthesis*, 89 *AMERICAN JOURNAL OF PUBLIC HEALTH* 1369, 1372 (1999); John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman, *Gambling and Problem Gambling Across the Lifespan*, 27 *JOURNAL OF GAMBLING STUDIES* 49, 56 (2011).

²⁴Rina Gupta & Jeffrey L. Derevensky, *Gambling Practices Among Youth: Etiology, Prevention and Treatment*, in *ADOLESCENT ADDICTION: EPIDEMIOLOGY, ASSESSMENT AND TREATMENT* 207, 208 (Cecilia A. Essau ed., 2008).

²⁵See Jeffrey Derevensky, *supra* note 20.

²⁶Randy Stinchfield, William E. Hanson, & Douglas H. Olson, *Problem and Pathological Gambling Among College Students*, 113 *NEW DIRECTIONS FOR STUDENT SERVICES* 63, 63 (2006).

²⁷George S. McClellan & Ken C. Winters, *Gambling: An Old School New Wave Challenge for Higher Education in the Twenty-First Century*, 113 *NEW DIRECTIONS FOR STUDENT SERVICES* 9, 16–18 (2006).

Internet gambling sites was found to have increased significantly among male youth (18 – 22 years of age) from 4.4% in 2008 to 16% in 2010.²⁸ It is estimated that, in spite of legal prohibitions, upwards of 400,000 male young adults wager on the Internet for money on a weekly basis, and that an additional 1.7 million do so on a monthly basis in the United States alone. Consequently, it appears that changing trends in gambling (*e.g.*, availability of remote gambling forms, increased media exposure) are leading to modifications in the ranking of popular betting activities for young adults and represent a significant change in playing behavior.

Gambling researchers have long speculated about the potential addictive properties of certain types of gambling activities that may have a powerful impact on the development of problem gambling.²⁹ Some have suggested that gambling games and activities containing unique characteristics with intermittent reinforcements have the potential to induce regular or excessive gambling behaviour.³⁰ These characteristics include rapid event frequencies (*i.e.*, opportunities to gamble limited only by how fast a person can play), short pay out intervals (*i.e.*, brief time lapse between the initial gamble and the payment of winnings), player involvement and perceived skill features (*i.e.*, the illusion of control over the outcome of the game), and the incorporation of near miss designs (*i.e.*, the illusion of coming close to winning a substantial prize). To date, however, there is little evidence in the literature to suggest that preference for and frequent participation in specific gambling activities results in greater prevalence rates for developing problem gambling among adolescents and young adults. One possible caveat to this conclusion is the small body of research investigating the remote wagering behaviours of young people. Although Internet and mobile gambling is a relatively new phenomenon and research in this area is just beginning to emerge, there is preliminary evidence to suggest that remote gambling may pose unique risks to young people.³¹ One study revealed that while there were no differences in the wagering behaviours of non-problem and problem gamblers for land-based activities in the previous year, significantly more problem than non-problem gamblers reported gambling online.³² The meaning of this relationship is not entirely clear, but could suggest that gambling via the Internet may be a medium particularly favoured by individuals with serious gam-

bling problems. Recently, Welte and his colleagues³³ reported that in addition to reporting a higher average number of problem gambling symptoms, Internet gamblers participated in a larger number of gambling activities overall. It is therefore possible that increased risk for problem gambling in youth is more a consequence of their wide-ranging participation in gambling opportunities rather than a direct causal relationship between Internet gambling and problem gambling. Nevertheless, despite a need for additional research to delineate the relationship between online gambling and youth problem gambling, it remains clear that adolescents and young adults are becoming increasingly involved in remote wagering.

The number and accessibility of legal gambling operations available in a jurisdiction has been found to have an impact on the prevalence of youth problem gambling. Specifically, U.S. young adults living in states with 8 – 10 regulated gambling activities had a past-year rate of problem gambling of 6.3%, while those living in states with 7 or less regulated forms of gambling available had a past-year problem gambling rate of 1.6%.³⁴

²⁸DAN ROMER, *Internet Gambling Grows Among Male Youth Ages 18 to 22: Gambling Also Increases in High School Age Female Youth* (October 2010), The Annenberg Public Policy Center of the University of Pennsylvania, <http://www.annenbergpublicpolicycenter.org/Downloads/Releases/ACI/Card%20Playing%202010%20Release%20final.pdf>

²⁹Mark Griffiths, Tobias Hayer, & Gerhard Meyer, *Problem Gambling: A European Perspective*, in PROBLEM GAMBLING IN EUROPE: CHALLENGES, PREVENTION, AND INTERVENTIONS xix, xx (Gerhard Meyer, Tobias Hayer, & Mark Griffiths eds., 2009).

³⁰Mark D. Griffiths, *Are Lottery Scratchcards a "Hard" Form of Gambling?* 7 JOURNAL OF GAMBLING ISSUES 1, 4–6 (2002), <http://www.camh.net/egambling/issue7/opinion/scratchcards.html>; Jonathan Parke & Mark Griffiths, *The Psychology of the Fruit Machine: The Role of Structural Characteristics (Revisited)*, 4 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 151, 151–153 (2006).

³¹Mark Griffiths, Jeffrey Derevensky, & Jonathan Parke, *Online Gambling Among Youth: Cause for Concern?* In HANDBOOK OF INTERNET GAMBLING (Robert Williams, Robert Wood & Jonathan Parke eds., forthcoming).

³²Jessica McBride & Jeffrey Derevensky, *Internet Gambling Behavior in a Sample of Online Gamblers*, 7 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 149, 152–154 (2009).

³³See John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman (2009), *supra* note 20, at 108–109.

³⁴John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman, *Legal Gambling Availability and Problem Gambling Among Adolescents and Young Adults*, 9 INTERNATIONAL GAMBLING STUDIES 89, 95 (2009).

Although no relationship between rate of problem gambling and availability of gambling activities was observed for adolescents, this is presumably the result of a more restricted set of potential opportunities and venues for wagering, as well as enforcement of legal age limits.

Numerous other correlates and risk factors associated with youth problem gambling behaviour have been identified within extant research and prevalence literature reviews. While there are a variety of risk factor constellations that may place certain youth at greater risk for the development and maintenance problematic gambling involvement, there is also a growing recognition that youth suffering from gambling problems are not a homogeneous group, and that multiple pathways may exist which can lead to the problematic behaviour.³⁵ This stipulation notwithstanding, there is substantial empirical evidence from both cross-sectional and longitudinal studies suggesting that males gamble more than females in general and are more likely to experience gambling-related problems.³⁶ The age of onset of gambling behaviour has also been found to be a consistent risk factor for youth problem gambling, with adolescent and young adult problem gamblers reporting initiation of gambling at an early age (between 9 and 12 years), as compared with peers who report gambling, but experience fewer gambling-related consequences.³⁷ Once initiated, there is often rapid progression from non-problem to problem gambling among vulnerable adolescents³⁸ and a continuity of problematic gambling from adolescence into young adulthood.³⁹ Additionally, youths who have experienced a big win early on in their gambling involvement are at increased risk for gambling problems (it is important to note that what constitutes a large win for an adolescent may be significantly different than for an adult).⁴⁰ Further, evidence from numerous international prevalence studies suggests an association between early exposure to gambling via parental participation and problematic youth involvement, with adolescents and young adult problem gamblers more likely to have parents that gamble or parents that are problem gamblers themselves.⁴¹ Finally, research examining the personality characteristics of problem gamblers reveals that youth problem gamblers tend to be more excitable and impulsive, are greater risk-takers, and have greater difficulty conforming to societal norms.⁴²

RESTRICTING YOUTH ACCESS TO GAMBLING: EXISTING LEGISLATION AND POLICIES

Limiting youth access to high-risk substances, such as tobacco and alcohol, is accepted by many as a valuable and well-documented strategy for reducing adolescents' use of those substances.⁴³ A successful reduction in substance use is, in turn, hypothesized to prevent the development of long-term

³⁵See Alex Blaszczynski & Lia Nower, *A Pathways Model of Gambling and Problem Gambling*, 97 ADDICTION 487, 491–496 (2002); See Jeffrey Derevensky, *supra* note 20, at 409.

³⁶N. Will Shead, Jeffrey L. Derevensky, & Rina Gupta, *Risk and Protective Factors Associated with Youth Problem Gambling*, 22 INTERNATIONAL JOURNAL OF ADOLESCENT MEDICINE AND HEALTH 39, 41 (2010); Rachel A. Volberg, Rina Gupta, Mark D. Griffiths, Daniel T. Ólason, & Paul Delfabbro, *supra* note 19, at 22.

³⁷Rina Gupta & Jeffrey L. Derevensky, *Familial and Social Influences on Juvenile Gambling Behaviour*, 13 JOURNAL OF GAMBLING STUDIES 179, 188–189 (1997); Rina Gupta & Jeffrey L. Derevensky, *Adolescent Gambling Behavior: A Prevalence Study and Examination of the Correlates Associated with Problem Gambling*, 14 JOURNAL OF GAMBLING STUDIES 319, 336–339 (1998); Frank Vitaro, Brigitte Wanner, Robert Ladouceur, Mara Brendgen, & Richard E. Tremblay, *Trajectories of Gambling During Adolescence*, 20 JOURNAL OF GAMBLING STUDIES 47, 63–64 (2004).

³⁸See Rina Gupta & Jeffrey L. Derevensky (1998), *supra* note 37.

³⁹Brigitte Wanner, Frank Vitaro, René Carbonneau, & Richard E. Tremblay, *Cross-Lagged Links Among Gambling, Substance Use, and Delinquency from Midadolescence to Young Adulthood: Additive and Moderating Effects of Common Risk Factors*, 23 PSYCHOLOGY OF ADDICTIVE BEHAVIORS 91, 98 (2009).

⁴⁰See Rina Gupta & Jeffrey L. Derevensky (1997), *supra* note 37; See HAROLD J. WYNNE, GARRY J. SMITH, & DURAND F. JACOBS, *ADOLESCENT GAMBLING AND PROBLEM GAMBLING IN ALBERTA* (Alberta Alcohol and Drug Abuse Commission, 1996).

⁴¹See Rachel A. Volberg, Rina Gupta, Mark D. Griffiths, Daniel T. Ólason, & Paul Delfabbro, *supra* note 19, at 22.

⁴²Rina Gupta, Jeffrey L. Derevensky, & Stephen Ellenbogen, *Personality Characteristics and Risk-Taking Tendencies Among Adolescent Gamblers*, 38 CANADIAN JOURNAL OF BEHAVIOURAL SCIENCE 201, 209–210 (2006); Lia Nower, Jeffrey L. Derevensky, & Rina Gupta, *The Relationship of Impulsivity, Sensation Seeking, Coping and Substance Use in Youth Gamblers*, 18 PSYCHOLOGY OF ADDICTIVE BEHAVIORS 49, 53 (2004).

⁴³Clyde Dent & Anthony Biglan, *Relation Between Access to Tobacco and Adolescent Smoking*, 13 TOBACCO CONTROL 334–338 (2004); Patricia A. Harrison, Jayne A. Fulkerson, & Eunkyoung Park, *The Relative Importance of Social Versus Commercial Sources in Youth Access to Tobacco, Alcohol, and Other Drugs*, 31 PREVENTIVE MEDICINE 39–48 (2000).

addiction, as well as related physiological, psychological, and social problems.⁴⁴ Although a significant proportion of youth gain access to controlled products through social sources (i.e., parents or other family members, the home, friends, parties), older adolescents also report gaining access to alcohol and tobacco from commercial sources.⁴⁵ Consequently, over the last two decades, a number of state, provincial, and federal social policies have been instituted to further restrict the commercial availability of tobacco and alcohol to children and adolescents. Youth access policies typically include a combination of minimum-age requirements and enforcement via compliance checks.

Within the last fifteen years, similar efforts have been made to restrict minors' access to gambling products and venues. The fact that gambling problems frequently result in multiple, long-lasting, negative outcomes underlines the importance of these initiatives.⁴⁶ Minimum-age legislation and other regulatory policies, aimed at restricting underage access to legal gaming opportunities, have been adopted internationally. However, there exists considerable variability in legislative regulation of gambling aimed at youth between jurisdictions. For example, while many jurisdictions in the United States prohibit land-based casino gambling by individuals less than 21 years of age, the majority of Canadian provinces have established the age of entry at 18 or 19 or older, and numerous other countries worldwide place the minimum casino admittance age at 18 years.⁴⁷ In addition to substantial variability between jurisdictions, there also exist variations in the legislative regulation of available gambling activities within jurisdictions. Although casino attendance in the United Kingdom is restricted to persons at least 18 years of age, anyone aged 16 years can legally purchase National Lottery tickets and scratch cards, and youth of any age can play low stakes/low prize (category D) electronic gaming machines in seaside arcades and family leisure centres.⁴⁸ Similar discrepancies between minimum-age legislation for different gambling activities are evident in other jurisdictions; for example while there exist legislative age limits on slot machines and casinos in Denmark, Finland, and Poland, no formal minimum-age regulations have been ratified for the purchase of lotto coupons or scratch cards.⁴⁹ This inconsistency in minimum-age legislation and policies within and between jurisdiction is not limited to the regulation of gaming: legislative reg-

ulations and policies aimed at restricting youth access to controlled products diverge depending on the targeted merchandise or activity (i.e., tobacco, alcohol, gaming activities). While the sale of tobacco products in the province of Saskatchewan is restricted to persons 18 years of age and older,⁵⁰ the sale of alcoholic beverages is prohibited to persons less than 19 years of age.⁵¹ Likewise, while the minimum legal drinking age has been established at 21 years in all U.S. states following the enactment of the National Minimum Drinking Age statute,⁵² many of these same states permit the sale of tobacco products to persons 18 years of age and older.⁵³ As a result of these differences in minimum age requirements across product categories, businesses are

⁴⁴Michael D. Resnick et al., *Protecting Adolescents from Harm: Findings from the National Longitudinal Study on Adolescent Health*, 278 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION 823-832 (1997).

⁴⁵Mary O. Hearst, Jayne A. Fulkerson, Mildred M. Maldonado-Molina, Cheryl L. Perry, & Kelli A. Komro, *Who Needs Liquor Stores When Parents Will Do? The Importance of Social Sources of Alcohol Among Young Urban Teens*, 44 PREVENTIVE MEDICINE 471-476 (2007).

⁴⁶Jeffrey L. Derevensky, Rina Gupta, Laurie Dickson, & Anne-Elyse Deguire, *Prevention Efforts Toward Reducing Gambling Problems*, in GAMBLING PROBLEMS IN YOUTH: THEORETICAL AND APPLIED PERSPECTIVES 211 (Jeffrey L. Derevensky & Rina Gupta eds., 2004).

⁴⁷I. Nelson Rose, *Underage Gambling and the Law*, in FUTURES AT STAKE: YOUTH, GAMBLING, AND SOCIETY 126, 148-180 (Howard J. Shaffer, Matthew N. Hall, Joni Vander Bilt, & Elizabeth M. George eds., 2003).

⁴⁸Mark Griffiths, *Great Britain*, in PROBLEM GAMBLING IN EUROPE: CHALLENGES, PREVENTION, AND INTERVENTIONS 103, 105 (Gerhard Meyer, Tobias Hayer, & Mark Griffiths eds., 2009); JIM ORFORD, AN UNSAFE BET? THE DANGEROUS RISE OF GAMBLING AND THE DEBATE WE SHOULD BE HAVING 17, 25-28 (2011).

⁴⁹Bartłomiej Dzik, *Poland*, in PROBLEM GAMBLING IN EUROPE: CHALLENGES, PREVENTION, AND INTERVENTIONS 219, 220 (Gerhard Meyer, Tobias Hayer, & Mark Griffiths eds., 2009); Tapio Jaakkola, *Finland*, in PROBLEM GAMBLING IN EUROPE: CHALLENGES, PREVENTION, AND INTERVENTIONS 53, 55-56 (Gerhard Meyer, Tobias Hayer, & Mark Griffiths eds., 2009); Jakob Linnet, *Denmark*, in PROBLEM GAMBLING IN EUROPE: CHALLENGES, PREVENTION, AND INTERVENTIONS 17, 18 (Gerhard Meyer, Tobias Hayer, & Mark Griffiths eds., 2009).

⁵⁰The Tobacco Control Act, S.S. 2001, c. T-14.1, s. 4 (Can.).

⁵¹The Alcohol and Gaming Regulation Act, S.S. 1997, c. A-18.011, s. 110(1) - 112(2) (Can.).

⁵²23 U.S.C.S § 158 (LexisNexis 2011).

⁵³See CAL. PENAL CODE § 308 (Deering 2011); FLA. STAT. ANN. § 210.095 (LexisNexis 2011); 720 ILL. COMP. STAT. ANN. 675 / 0.01 (2011); N.Y. PUB. HEALTH LAW § 1399-cc (Consol. 2011); TEX. HEALTH & SAFETY CODE ANN. § 161.082 (LexisNexis 2011).

faced with a greater challenge in training their staff to understand and apply these individual rules.⁵⁴

Although the ratification of minimum-age laws and regulatory policies are a necessary component in the prevention of underage gambling participation, their effectiveness in reducing youth access to gaming opportunities have shown moderate success. In a representative sample of high school students in the province of Québec, Martin, Gupta and Derevensky⁵⁵ found that only 7% of adolescents reported having gambled exclusively on any form of provincially-regulated games of chance in the past year (down from 19% in 2002), yet close to one-fifth of students indicated having participated in both unlicensed and unregulated games. Moreover, despite the implementation of legal prohibitions and policies to prevent the sale of lottery products to minors in numerous North American and international jurisdictions, large-scale prevalence studies continue to indicate that lottery and scratch card play rank high amongst preferred gambling activities for adolescents.⁵⁶ In line with this self-report data, results from an empirical study investigating vendor compliance with youth access regulatory policies for lottery products reveal that only a moderate proportion of vendors (60%) were compliant with existing statutes.⁵⁷ From this body of research, it remains clear that current legislative statutes put forth to prevent underage gambling participation are not being adhered to by some retailers, and that additional, stricter measures and penalties are needed to enhance vendor compliance with minimum-age legislation and policies. To make matters worse, a number of Internet gambling providers have failed to ensure minimum age requirements for gambling on their websites.

PROBLEM AND PATHOLOGICAL GAMBLING IN FORENSIC POPULATIONS

The majority of available literature examining problem gambling and criminality has focused on adults. Previous research has established that a significant proportion of pathological gamblers report committing illegal acts directly related to their wagering behaviour. Gambling-related criminal activities are generally white-collar and non-violent, such as shoplifting, fencing stolen goods, fraud, forgery, embezzlement, petty theft, and larceny.⁵⁸ Other

crimes reported to be associated with gambling include perpetration of domestic or intimate partner violence, drug dealing, and robbery. However, exact figures for the prevalence and extent of gambling-related criminal activity are difficult to establish. Estimations of gambling-related offenses vary widely between research methodologies and sample types (e.g., general, clinical or correctional population studies; court files analyses).⁵⁹ Compared with other methodological approaches, such as surveys and interviews, court file analyses are likely to grossly underestimate gambling-related offenses given the potential for under-reporting (i.e., gambling is not necessarily identified on arrest or conviction records as underlying the offense), under-detection (i.e., not all gambling-related offenses are detected by law enforcement agencies), and misrepresentation (i.e., defence and prosecutorial attorneys generally do not mention gambling problems as a motive for crime) of these crimes.⁶⁰

⁵⁴AGE-RESTRICTED PRODUCTS REVIEW GROUP, BETTER REGULATION OF AGE RESTRICTED PRODUCTS: A RETAIL VIEW 7 (2010), Local Better Regulation Office, available at <http://www.lbro.org.uk/docs/age-restricted-products-report.pdf>.

⁵⁵Isabelle Martin, Rina Gupta, & Jeffrey Derevensky, *Participation aux jeux de hasard et d'argent*, in ENQUÊTE QUÉBÉCOISE SUR LE TABAC, L'ALCCOL, LA DROGUE ET LE JEU CHEZ LES ÉLÈVES DU SECONDAIRE, 2008 149, 165 (Institut de la statistique du Québec, 2009).

⁵⁶Alun C. Jackson et al., *Adolescent Gambling Behaviour and Attitudes: A Prevalence Study and Correlates in an Australian Population*, 6 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 325, 334–335 (2008); Agneta Johansson & K. Gunnar Götestam, *Gambling and Problematic Gambling With Money Among Norwegian Youth (12–18 Years)*, 57 NORDIC JOURNAL OF PSYCHIATRY 317, 318–319 (2003); John W. Welte, Grace M. Barnes, Marie-Cecile O. Tidwell, & Joseph H. Hoffman (2009), *supra* note 20, at 107.

⁵⁷Renee A. St-Pierre, Jeffrey L. Derevensky, Rina Gupta, & Isabelle Martin, *Preventing Lottery Ticket Sales to Minors: Factors Influencing Retailers' Compliance Behaviour*, INTERNATIONAL GAMBLING STUDIES (forthcoming).

⁵⁸Jeffrey L. Derevensky, Rina Gupta, & Maggie Magoon, *Adolescent Problem Gambling: Legislative and Policy Decisions*, 8 GAMING LAW REVIEW 107, 113 (2004).

⁵⁹Julie Lahn, *Gambling Among Offenders: Results From an Australian Survey*, 49 INTERNATIONAL JOURNAL OF OFFENDER THERAPY AND COMPARATIVE CRIMINOLOGY 343, 346 (2005).

⁶⁰Alex Blaszczyński & Derrick Silove, *Pathological Gambling: Forensic Issues*, 30 AUSTRALIAN AND NEW ZEALAND JOURNAL OF PSYCHIATRY 358, 360 (1996); Penny Crofts, *Problem Gambling and Property Offenses: An Analysis of Court Files*, 3 INTERNATIONAL GAMBLING STUDIES 183, 185 (2003).

While these differences should be noted, a number of findings regarding the relation of criminal behaviour and gambling have been generally consistent.

In an early study, Blaszczynski, McConaghy, and Frankova⁶¹ found that a little more than half of pathological gamblers seeking help admitted to having committed gambling-related criminal offenses, with about one-fifth of them having been formally charged for the offense. Meyer and Fabian⁶² found similar results in their study of delinquency and pathological gambling. Specifically, they established that approximately 55% of help-seeking gamblers reported committing illegal acts in order to obtain money for gambling, and that 10% of them had been sentenced for a gambling-related criminal offense. Moreover, Ladouceur and his colleagues⁶³ reported that 68% of their treatment-seeking pathological gamblers admitted to participating in illegal behaviour to finance their gambling, with 17% of them having appeared in court for committing a criminal offense. Recently, Ledgerwood, Weinstock, Morasco, and Petry⁶⁴ revealed that fewer than 30% of their sample of pathological gamblers reported committing one or more illegal acts a year prior to entering treatment. They also found that pathological gamblers with a reported past-year history of criminal activity were significantly younger than those gamblers who did not report committing illegal acts in the past year. Overall, the data suggest that approximately half of problem gamblers participate in one or more criminal activities in their lifetime.⁶⁵

The relative consistency of findings indicating a connection between criminal behaviour and gambling notwithstanding, a major limitation of many of these previous studies is that their samples are drawn almost exclusively from treatment-seeking populations; consequently, the results of these studies may therefore not generalize to pathological gamblers in community settings or those who do not seek treatment for their gambling problems.⁶⁶ Treatment-seeking pathological gamblers comprise a small minority of disordered gamblers in community samples, and therefore may not be representative of the larger population of pathological gamblers.⁶⁷ There is also some evidence to suggest differences in the frequency of gambling-related criminal behaviour between clinical and community populations. Brown's⁶⁸ comparison of officially recorded convictions from the United Kingdom with self-reported criminal conviction in a sample

of treatment-seeking gamblers from the same geographical area revealed that the patterns of criminal convictions for the treatment-seeking gamblers differed statistically from the patterns of criminal convictions within the general population. Further, in a study comparing a sample of male pathological gamblers in treatment to a sample of male non-pathological gamblers drawn from the general population and the army, Meyer and Stadler⁶⁹ reported that 59.3% of the pathological gamblers admitted having committed at least one criminal offense during the past year of regular gambling participation, compared to 22.3% of the high- and low-frequency gamblers. They also noted that 28.3% of pathological gamblers reported having been convicted of a criminal offense at least once, whereas only 3.3% of the comparative group did so. It is therefore likely that, in contrast to non-treatment seeking pathological gamblers, treatment-seeking populations exhibit different rates of gambling-related criminal behaviour. Clinically, there is evidence from treatment seeking adolescents at the

⁶¹Alex Blaszczynski, Neil McConaghy, & Anna Frankova, *Crime, Antisocial Personality and Pathological Gambling*, 5 JOURNAL OF GAMBLING BEHAVIOR 137, 143 (1989).

⁶²Gerhard Meyer & Thomas Fabian, *Delinquency Among Pathological Gamblers: A Causal Approach*, 8 JOURNAL OF GAMBLING STUDIES 61, 65 (1992).

⁶³Robert Ladouceur, Jean-Marie Boisvert, Michel Pépin, Michel Loranger, & Caroline Sylvain, *Social Cost of Pathological Gambling*, 10 JOURNAL OF GAMBLING STUDIES 399, 406–407 (1994).

⁶⁴David M. Ledgerwood, Jeremiah Weinstock, Benjamin J. Morasco, & Nancy M. Petry, *Clinical Features and Treatment Prognosis of Pathological Gamblers With and Without Recent Gambling-Related Illegal Behavior*, 35 JOURNAL OF THE AMERICAN ACADEMY OF PSYCHIATRY AND THE LAW 294, 298 (2007).

⁶⁵Jennifer Zorland, Angela Mooss, & Ayana Perkins, *Gambling and Offending: An Examination of the Literature 3* (January 2008) (unpublished manuscript), available at <http://www2.gsu.edu/~psyjge/Rsrc/Pg%20and%20crime%20Lit%20Review.pdf>

⁶⁶David M. Ledgerwood, Jeremiah Weinstock, Benjamin J. Morasco, & Nancy M. Petry (2007), *supra* note 62, at 301.

⁶⁷R. Michael Bagby, David D. Vachon, Eric Bulmash, & Lena C. Quilty, *Personality Disorders and Pathological Gambling: A Review and Re-Examination of Prevalence Rates*, 22 JOURNAL OF PERSONALITY DISORDERS 191, 193 (2008).

⁶⁸R. I. F. Brown, *Pathological Gambling and Associated Patterns of Crime: Comparisons with Alcohol and Other Drug Addictions*, 3 JOURNAL OF GAMBLING BEHAVIOR 98, 105–108 (1987).

⁶⁹Gerhard Meyer & Michael A. Stadler, *Criminal Behavior Associated with Pathological Gambling*, 15 JOURNAL OF GAMBLING STUDIES 29, 34–35 (1999).

International Centre for Youth Gambling Problems and High Risk Behaviors that a large proportion of these youth have been involved in criminal behaviors, often beginning at home (most parents refuse to press charges against their children for stealing from the home).

In addition to examining the relationship between adult problem gambling and criminal activity, several studies have investigated the prevalence of problem gambling within forensic populations, including defendants in court cases, convicted offenders awaiting sentencing, convicted offenders serving community (conditional and probation) sentences, incarcerated inmates, and parolees. In their review of 27 published and unpublished North American, European and Australasian studies examining the prevalence of problem and pathological gambling in offender populations, Williams, Royston and Hagen⁷⁰ found that, on average, about one third of offenders in the criminal justice system are likely to be problem or pathological gamblers, a proportion approximately 20 times the prevalence rate observed in adult community samples. They also indicated that approximately 50% of criminal offenses reported by problem gamblers in forensic populations are committed to finance gambling activities or pay off gambling debts. This self-reported rate of gambling-related crime is somewhat lower than that established in Crofts'⁷¹ analysis of "gambling related" court case files; of the 63 files examined, approximately 75% ($n=47$) of the defendants had committed illegal acts to obtain money to gamble, and about 14% ($n=9$) of them had committed criminal offenses to meet financial debts or commitments as a consequence of gambling. Again, methodological differences are likely to account in large part for discrepancies in the proportions of gambling-related criminal offenses.

The severity of problem gambling has been found to be associated with criminal behaviour within forensic populations. For example, Lahn⁷² revealed that 68.8% of male offenders who met criteria for "severe" problem gambling (SOGS score of 10 or more) reported stealing or obtaining money illegally to pay for gambling or gambling debts, compared to 26.3% of offenders who met criteria for "moderate" problem gambling (SOGS score of 5 to 9). Additionally, from a sample of 106 recently sentenced male offenders with moderate to severe gambling problems, Turner, Preston,

Saunders, McAvoy and Jain⁷³ reported that approximately two thirds of severe problem gamblers admitted to committing criminal acts to provide funds for their continued gambling, compared to one fifth of moderate problem gamblers who acknowledged that gambling led to their criminal activity. Nevertheless, the fact that approximately one third of the crimes committed by offenders who are severe problem gamblers were apparently unrelated to their gambling suggests that gambling severity alone is not necessarily a direct causal predictor of criminal activity among this population.

The high prevalence of gambling problems prior to incarceration appears to pose a unique problem for the criminal justice system. Most jurisdictions explicitly prohibit gambling activities within their correctional facilities. Despite these proscriptions against wagering in correctional institutions, a small number of researchers have highlighted that gambling is indeed prevalent among incarcerated individuals. In their review of studies which investigated the extent of gambling behaviour occurring within correctional institutions, Williams and colleagues⁷⁴ revealed that between 22% and 46% of inmates gamble while incarcerated, with 19% to 24% gambling in prison on a weekly basis. Further, anecdotal evidence from inmate interviews suggests that while gambling plays psychological and social functions in prison, such as to relieve boredom, to provide entertainment and leisure experiences, and to present opportunities for socialization, it can also result in victimization and violence against incarcerated gamblers.⁷⁵ Thus, while much lower levels of gambling participation are reported within

⁷⁰Robert J. Williams, Jennifer Royston, & Brad F. Hagen, *Gambling and Problem Gambling Within Forensic Populations: A Review of the Literature*, 32 CRIMINAL JUSTICE AND BEHAVIOR 665, 679–680 (2005).

⁷¹Penny Crofts (2003), *supra* note 60, at 187.

⁷²Julie Lahn (2005), *supra* note 59, at 350.

⁷³Nigel E. Turner, Denise L. Preston, Crystal Saunders, Steven McAvoy, & Umesh Jain, *The Relationship of Problem Gambling to Criminal Behavior in a Sample of Canadian Male Federal Offenders*, 25 JOURNAL OF GAMBLING STUDIES 153, 165–166 (2009).

⁷⁴Robert J. Williams, Jennifer Royston, & Brad F. Hagen (2005), *supra* note 70, at 680–684.

⁷⁵D. J. Williams & Mary Liz Hinton, *Leisure Experience, Prison Culture or Victimization? Sex Offenders Report on Prison Gambling*, 1 VICTIMS & OFFENDERS 175, 180–184 (2006).

correctional facilities than pre-incarceration, the results of these studies suggest that opportunities to gamble remain readily available during incarceration and that gambling may result in additional gambling-related negative consequences for forensic populations.

YOUTH PROBLEM GAMBLING, DELINQUENCY AND THEFT: COMMUNITY AND FORENSIC POPULATIONS

In contrast to the abundance of research on the relationship between adult crime or incarceration and problem gambling, few empirical studies have examined gambling-related delinquent or criminal behaviour in the general adolescent population.⁷⁶ However, some research has linked adolescent gambling to the commission of illegal or delinquent acts. Adolescent gamblers are more likely to participate in, or have a history of, committing delinquent or illegal acts, particularly those who already exhibit gambling problems.⁷⁷⁻⁸⁴ Derevensky and Gupta⁸⁵ reported that 42.4% of problem and pathological gamblers indicated borrowing or stealing money to cover gambling debts, 21% reported committing illegal acts to finance their gambling, 24% had taken money from their family, and 12% had stolen from outside the family. Adolescent delinquent behaviours may include criminal/illegal acts such as truancy, selling drugs, shoplifting, stealing money, or working as a bookmaker.

One study which specifically asked whether criminal acts were committed for the purpose of financing gambling found that for 3.9% of juvenile cases, the offense was gambling-related.⁸⁴ Among these behaviors, 86% involved burglary or theft. Yet another study reported that delinquent and criminal behaviours were committed specifically to participate in or to finance gambling through truancy (14%), stealing money from parents (12%), stealing money from outside the home (5%), and selling other people's possessions (6%).⁸⁶

Why do some teens with gambling problems get involved in theft or criminal activity? There are several theories that have been suggested that can plausibly explain links between excessive, problematic gambling and criminal behaviour. Personal characteristics such as a genetic predisposition, personality disorders, or intelligence are included at the individual level in theories such as the ratio-

nal choice model or social learning theory. In the rational choice model of behaviour, an individual makes a rational decision to commit a crime based upon weighing the social, psychological, and financial benefits compared to the perceived risks and costs.⁸⁷

Social learning theories contend that most behaviour is learned through experiencing positive and negative reinforcements or consequences for a particular behaviour. Behaviours are often initially learned by imitating significant models in one's life (e.g., parents or peers)^{88,89} Akers⁹⁰ has

⁷⁶Jeffrey L. Derevensky, Rina Gupta, & Maggie Magoon (2004), *supra* note 58, at 114; Maggie E. Magoon, Rina Gupta, & Jeffrey Derevensky, *Juvenile Delinquency and Adolescent Gambling: Implications for the Juvenile Justice System*, 32 CRIMINAL JUSTICE AND BEHAVIOR 690, 696-697 (2005).

⁷⁷Fisher, S., *Gambling and Pathological gambling in Adolescents*, 9 JOURNAL OF GAMBLING STUDIES, 277-288 (1993).

⁷⁸Griffiths, M.D., *The acquisition, Development, and Maintenance of Fruit Machine Gambling in Adolescents*. JOURNAL OF GAMBLING STUDIES, 6, 193-204 (1990).

⁷⁹Gupta, R., & Derevensky, J., *Adolescent Gambling Behavior: A Prevalence Study and Examination of the Correlates Associated with Excessive gambling*, 14 JOURNAL OF GAMBLING STUDIES, 319-345 (1998).

⁸⁰Ladouceur, R. & Mireault, C., *Gambling Behaviours Among High School Students in the Quebec Area*, 4 JOURNAL OF GAMBLING BEHAVIOR, 3-12 (1988).

⁸¹Lesieur, H. R., & Klein, R., *Pathological Gambling Among High School Students*, 12 ADDICTIVE BEHAVIORS, 129-135 (1987).

⁸²Winters, K.C. & Anderson, N., *Gambling Involvement and Drug Use Among Adolescents*, 16 JOURNAL OF GAMBLING STUDIES 175-198 (2000).

⁸³Wynne, H., Smith, G., & Jacobs, D. (1996). *Adolescent gambling and problem gambling in Alberta*. A report prepared for the Alberta Alcohol and Drug Abuse Commission. Edmonton, Alberta: Wynne Resources Ltd.

⁸⁴Yeoman, T. & Griffiths, M., *Adolescent Machine Gambling and Crime*, 19 JOURNAL OF ADOLESCENCE 99-104 (1996).

⁸⁵Gupta, R., & Derevensky, J.L. *Adolescents with Gambling Problems: From Research to Treatment*. JOURNAL OF GAMBLING STUDIES 16, 315-342 (2000).

⁸⁶Huxley, J. & Carroll, D., *A survey of Fruit Machine gambling in Adolescents*, 8 JOURNAL OF GAMBLING STUDIES, 167-179 (1992).

⁸⁷Magoon, M.E., Gupta, R., & Derevensky, J., *Juvenile Delinquency and Adolescent Gambling: Implications for the Juvenile Justice System*, 32 CRIMINAL JUSTICE AND BEHAVIOUR 690-713 (2005).

⁸⁸Akers, R. (1985), *DEVIAN'T BEHAVIOUR: A SOCIAL LEARNING APPROACH* (3rd ed.). Belmont, CA: Wadsworth.

⁸⁹Bandura, A. (1977), *SOCIAL LEARNING THEORIES*. Englewood Cliffs, NJ: Prentice Hall.

⁹⁰Akers, R. (1997). *Criminological Theories: Introduction and Evaluation*, 2nd Ed. Roxbury, Los Angeles, CA.

suggested that associating with individuals who share deviant lifestyles and beliefs, being differentially reinforced for criminal behaviour over conforming behaviour, exposure to deviant models, and personal attitudes favouring criminal activity increases the likelihood of criminal behaviour.

Blaszczynski and Silove⁹¹ have proposed that delinquent or illegal acts are committed more frequently by adolescents in general because of increased peer pressure and fewer available financial resources to support their gambling behaviour. As the severity of gambling behaviour intensifies, so does the need to increase the frequency of gambling participation in order to obtain the desired level of excitement, and since increased frequency of participation often results in increased demand for money to finance wagering, criminal acts are more likely to be committed by adolescents in order to meet this demand.⁹² This vicious cycle of increased severity of gambling behaviour, frequency of gambling participation, and demand for money is especially true for adolescents already identified as problem or pathological gamblers.

A recent study found that while severity of gambling problems in adolescence was prospectively linked to criminal behaviors of theft, the link between gambling problems and theft was mediated by the presence or absence of deviant peers.⁹³ Specifically, for adolescents with deviant peers, adolescent gambling problems were linked to theft in young adulthood. In contrast, for adolescents who had no deviant peers, gambling problems were not found to be associated with such criminal behavior. Wanner and her colleagues suggest that deviant peers may model delinquent behaviours or provide opportunities to commit theft in order to solve monetary problems due to excessive gambling. It is important to note that there was no effect of deviant peers on the continuity of gambling behaviours. This is in line with the assumption that, unlike drug use, deviant peers are neither necessary for having access to gambling venues, nor necessary for modeling gambling behaviours, which are integrated into mainstream society.

Understanding the mechanism linking youth gambling, delinquency, and criminal behavior is crucial for treatment providers. If the link between gambling and delinquency is made through association with delinquent peers, this would have serious

implications in terms of administration of treatment for gambling addictions among youth. Specifically, perhaps adolescents presenting with only gambling problems should not be routinely treated in the same clinic with substance users, substance addicts, or other delinquent adolescents so as to minimize potential negative influences. It also suggests that adolescents with gambling problems not participate in group therapies along with other adolescents with various other types of addictions and potential comorbid psychopathology.

Are adolescents with a significant gambling problem similar to other teen delinquents or adolescents with conduct disorder? If the gambling problems are resolved, and the adolescent no longer has outstanding gambling debts or participates in gambling, will he/she also abandon their delinquent antisocial behaviours? Or, will delinquent behaviours initially engaged in to finance their gambling persist even without gambling involvement? These questions need to be examined empirically. It is very likely that adolescents with co-morbid gambling addictions and conduct problems and delinquency will require comprehensive treatment targeting multiple types of problem behaviours and that alternative judicial interventions may be necessary.⁹⁴

Minimal empirical research has been performed to investigate the prevalence of gambling problems among incarcerated youth.⁹⁵ Early studies of adolescents incarcerated in youth custody and juvenile detention centers revealed a high frequency of regular and excessive gambling behaviour among this population, and that an identifiable proportion of them commit criminal offenses to directly finance

⁹¹Alex Blaszczynski & Derrick Silove (1996), *supra* note 60, at 362.

⁹²See Mark Dickerson, *Gambling: A Dependence Without a Drug*, 1 INTERNATIONAL REVIEW OF PSYCHIATRY 157, 163 (1989).

⁹³Wanner, B., Vitaro, F., Carbonneau, R., & Tremblay, R.E., *Cross-lagged Links Among Gambling, Substance Abuse, and Delinquency from Midadolescence to Young Adulthood: Additive and Moderating Effects of Common Risk Factors*, 23(1) PSYCHOLOGY OF ADDICTIVE BEHAVIORS 91–104 (2009).

⁹⁴Gilbeau, L., Farrell, M., & Derevensky, J. (2011), "Adolescent Gambling...A Risky business," *Casino Lawyer*, 7, 4–6.

⁹⁵Maggie E. Magoon, Rina Gupta, & Jeffrey Derevensky, *Gambling Among Youth in Detention Centers*, 21 JOURNAL FOR JUVENILE JUSTICE SERVICES 17, 17 (2007).

their gambling activities.⁹⁶ Westphal and Johnson⁹⁷ reported that the prevalence of problematic gambling in a sample of imprisoned juvenile offenders was approximately 5.3 times greater than among students from a school community sample, with 20.5% categorized as probable pathological gamblers. This increased prevalence of problem gambling among incarcerated juvenile offenders is consistent with findings from studies with adult forensic samples. Westphal and Johnson also revealed that 12.5% of the incarcerated youth offenders surveyed reported having been arrested for gambling-related criminal activities, compared to only 1.5% of students from the community sample. Juvenile offenders reporting gambling-related arrests were 1.5 times more likely to be problem gamblers (60.5%) than non-problem gamblers (39.5%). Similar results have been reported by Magoon, Gupta and Derevensky⁹⁸ and Brown, Killian and Evans,⁹⁹ indicating a robust relationship between gambling-related delinquent or criminal activities and the frequency and severity of gambling behaviour among adolescents in youth residential centers (*i.e.*, juvenile detention centres, prisons).

To date, no published research examining the extent of adolescent gambling behaviour occurring within youth residential facilities exists. However, data from an unpublished study of youth involved in the juvenile and family courts suggests that more than two-thirds of adolescents who had spent time in a youth detention centre admitted to gambling while detained, with 30% revealing that they gambled on a frequent basis.¹⁰⁰ Further, close to one-third of the young offenders surveyed reported that they had gambled more frequently while in detention, and 40% admitted to gambling at similar rates since their release from youth detention. Thus, much like for adult incarcerated populations, gambling appears to be a common and socially acceptable activity during youth detention, and that sentencing to juvenile residential centres may in and of itself be a potential risk factor for problematic gambling behaviour.

KEEPING KIDS SAFE: PRACTICAL, SOCIAL AND POLICY CONSIDERATIONS

As previously noted, Internet and mobile gambling may pose specific risks for adolescents. The combination of various factors, including the ease

of access to computers, “smart phones,” Facebook, Apps, pop-up advertisements for online gambling sites, the anonymity of Internet gambling, and most adolescents’ extensive experience on the Internet might render Internet gambling particularly appealing to adolescents. Of significant concern is a recent study amongst college students that Internet gambling was engaged in as a way of minimizing and reducing boredom.¹⁰¹

There has been some work done towards the development of software that can effectively block gambling websites from personal computers. Several parental control packages available for purchase now offer the option to block gambling websites in addition to other types of inappropriate content. Some of these family online safety packages allow adults to have a password that they can use to change Internet filtering criteria, such that it is possible to enable or disable filtering rather easily. Other software packages do not allow “password override,” suggesting that this practice protects individuals in moments of vulnerability.

Though various software developers claim to have products that can block inappropriate or restricted content which is inappropriate to minors, including gambling websites, they must be purchased. More importantly, recent research suggest that relatively few

⁹⁶See Graham Huff & Frances Collinson, *Young Offenders, Gambling and Video Game Playing*, 27 BRITISH JOURNAL OF CRIMINOLOGY 401, 403 (1987); Tony Maden, Mark Swinton, & John Gunn, *Gambling in Young Offenders*, 2 CRIMINAL BEHAVIOUR AND MENTAL HEALTH 300, 303 (1992).

⁹⁷James R. Westphal & Lera J. Johnson, *Gambling Behavior of Juvenile Offenders in Louisiana*, 4 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 330, 339–341 (2006).

⁹⁸See Maggie E. Magoon, Rina Gupta, & Jeffrey Derevensky (2007), *supra* note 79, at 21–22.

⁹⁹See Randy Brown, Eric Killian, & William Evans, *Gambling Attitudinal and Behavioral Patterns and Criminality in a Sample of Las Vegas Area Detained Youth*, 13 JOURNAL OF GAMBLING ISSUES (2005), <http://www.camh.net/doi/full/10.4309/jgi.2005.13.5>.

¹⁰⁰Angela Devi Mooss, *Gambling Behaviors Among Youth Involved in Juvenile and Family Courts* (December 1, 2009) (unpublished Ph.D. dissertation, Georgia State University), http://digitalarchive.gsu.edu/cgi/viewcontent.cgi?article=1062&content=psych_diss.

¹⁰¹McBride, J., & Derevensky, J., *Internet Gambling Behavior in a Sample of Online Gamblers*, 7 INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION 149–167 (2009).

parents perceive youth gambling to be an important issue.¹⁰² Similarly, school systems, while providing educational interventions concerning many high risk behaviors (*e.g.*, substance use, eating disorders, unprotected sex, cigarette smoking etc.) have generally omitted problem gambling in their curriculum.

Adolescent problem gambling remains an important social policy issue. While legislators, governments and the industry have begun to focus on responsible gambling initiatives, adolescents as a group have generally been ignored. Exchanges of ideas and cooperation between scientists, policymakers, legislators, legal professionals and clini-

cians are essential. We need to be proactive in establishing standards for our regulators, to provide necessary funding for the development and widespread dissemination of prevention programs, and to provide funds for treatment programs for those in need. As President John F. Kennedy remarked, "Children are our best resource and best hope for the future." We all have a responsible role to play to minimize the harm to our children.

¹⁰²Campbell, C., Derevensky, J., Meerkamper, E., & Cutajar, J. (2011). *Parents' Perceptions of Adolescent Gambling: A Canadian National Study*, *JOURNAL OF GAMBLING ISSUES*, 25, 36–53.