Parents' Perceptions of Adolescent Gambling: A Canadian National Study

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Abstract

Previous unsubstantiated reports by children and adolescents suggest tacit parental acceptance of their gambling behaviour. A Canadian national survey of parents with teens between the ages of 13 and 18 revealed that in general parents view adolescent gambling as a relatively unimportant issue compared to other potentially risky behaviours. Parental attitudes toward youth gambling, their knowledge and awareness of youth gambling prevention programs, and their gambling behaviours with their children suggest that gambling has become normalized, with few parents being aware of the potential seriousness of youth gambling. The results are interpreted with the aim of improving harm minimization and prevention initiatives.

Introduction

Adolescent Gambling in Canada

Approximately 80% of Canadian adolescents reported having gambled at least once during their lifetime on regulated and non-regulated activities (Gupta & Derevensky, 1998; Jacobs, 2000; Shaffer & Hall, 1996). The legal age for regulated gambling varies in Canada from province to province. Currently, the legal age for purchasing lottery tickets in the provinces is either 18 or 19, with provincial laws differing with respect to the age at which individuals are allowed to gamble in casinos or play provincially regulated electronic gambling machines (Canadian Partnership for Responsible Gambling, 2009). Lottery scratch tickets are often a favourite pastime for underage youth, and the enforcement of existing statutes is not always adhered to by retailers who sell lottery products. A recent study by St-Pierre (2008) examining retailer compliance with lottery laws in and around the city of Montreal found that youth aged 15 to 17 were frequently able to purchase lottery products without providing any form of identification, in spite of existing legislation. Underage participants were found to be able to purchase lottery tickets 42% of the time. Evidence further suggests that youth

under the age of 18 are able to access casino gambling in Canada (Adlaf, Paglia-Boak, & Ialomiteanu, 2006).

Adolescent Problem Gambling

Although adult problem gambling is an issue of considerable concern, rates of problem gambling and numbers of individuals at risk for problem gambling are reportedly higher among adolescents than among adults. Studies have found prevalence rates for youth and adolescent serious problem gambling to range from 4% to close to 8% (Jacobs, 2000; Shaffer & Hall, 1996; Shaffer, Hall, & Vander Bilt, 1999; Volberg, Gupta, Griffiths, Olason, & Delfabbro, in press). By comparison, pathological gambling rates among adults are much lower, with approximately 1% to 2% of Canadian adults suffering from pathological gambling (Cox, Yu, Afifi, & Ladouceur, 2005). Problem gambling during adolescence may lead to problem gambling as an adult (Winters, Stinchfield, & Kim, 1995; Winters, Stinchfield, Botzet, & Anderson, 2002) and is associated with higher than normal rates of problem behaviours including smoking, drinking, drug use (Hardoon, Gupta, & Derevensky, 2004; Stinchfield, 2000; Winters & Anderson, 2000), and school-related problems (Gupta & Derevensky, 1998; Ladouceur, Boudreault, Jacques, & Vitaro, 1999).

Despite evidence showing the multiple negative consequences of problem gambling, many individuals do not view gambling as a problematic issue. In a study by Shaffer (1996), only 25% of adolescents viewed gambling as potentially dangerous. By comparison, 60% of adolescents viewed alcohol, 64% viewed smoking, and 75% viewed stimulants and narcotics as potentially dangerous. Studies on adult perceptions of gambling reflect a similar attitude. A national study examining Canadian attitudes on gambling found that when asked to compare gambling to a number of other issues, participants viewed gambling as being a less serious problem than drug use, alcohol addiction, smoking, and driving above the speed limit, although the variance in the responses on the seriousness of gambling was considerable (Azmier, 2000).

The general population is thought to lack knowledge about problem gambling. Although approximately 90% of adults could identify at least one warning sign related to problem gambling, less than half were aware of the term "responsible gambling"; had observed a public notice about problem gambling; or were cognizant of any program initiated by governments, social service agencies, or other organizations to reduce and/or minimize problem gambling (Turner, Weibe, Falkowski-Ham, Kelly, & Skinner, 2005). No studies to date have assessed parental knowledge about resources available for children who may have a gambling problem, although the results from Turner et al. (2005) would suggest that this knowledge is limited at best.

Reports of Parental Attitudes Toward Youth Gambling

Prior research studies have examined parental attitudes/perceptions about the gambling participation of their children by questioning the children rather than the parents about these perceptions. A number of empirical studies have reported that youth believe their parents

are not very concerned about their gambling behaviour and even purchase lottery tickets for them (Felsher, Gupta, & Derevensky, 2001; Gupta & Derevensky, 1997; Ladouceur & Mireault, 1988). Parents who purchase lottery tickets for their children provide tacit approval, which may lead to much more serious involvement in gambling or serve to support already problematic behaviour (Felsher, Derevensky, & Gupta, 2004). If this is indeed the case, then current parental attitudes toward youth gambling as reported by their children are of significant concern.

Thus far very little has been done to directly examine parents' attitudes toward youth gambling, although early work by Fisher (1999) suggests that having a parent who is indifferent to his or her child's gambling significantly increases the probability that the child will experience significant gambling problems. A small-scale adult study investigating parental perception toward youth gambling reported significant ambivalence (Vachon, Vitaro, Wanner, & Tremblay, 2004). Such ambivalence or tacit acceptance of children's gambling is likely an important contributing factor to their gambling behaviour.

Prevention of Youth Gambling

In spite of the lack of empirically based gambling prevention programs designed for youth, a conceptual framework has been developed by Dickson, Derevensky, and Gupta (2004b) based on empirical evidence from prevention efforts aimed at other addictive behaviours utilizing a risk-protective factor model, adapted from Jessor's (1998) model of adolescent risk behaviour theory. The model outlines several risk and protective factors previously identified from empirical research, including those specific to gambling, those that influence both gambling and other addictive behaviours, and those that have been identified for addictive behaviours other than gambling. Risk factors identified through research specific to gambling outlined in the model include paternal pathological gambling, access to gambling venues, a positive media portrayal of gambling, and an early onset of gambling experience. Being male, having models for deviant behaviour, having low conformity, and having school difficulties are all risk factors that adolescent problem gambling shares with other high-risk behaviours. Although the model requires further refinement, it is an important framework that may be particularly useful in the development of prevention programs aimed at youth gambling.

Despite adolescents' not being of legal age to participate in government-regulated forms of gambling, numerous prevalence studies have suggested that they remain at risk for developing gambling problems. Ascertaining parents' perceptions of adolescent gambling behaviour may be particularly important in the development of programs and strategies, especially if parents are to become partners in helping prevent adolescent problem gambling. The purpose of this study is to determine parental attitudes and perceptions of youth gambling, especially as it relates to their children, and to compare these attitudes and perceptions to other risky behaviours in an effort to determine how to involve parents in the prevention of youth problem gambling. The study also aims to determine parents' current level of knowledge and awareness of adolescent problem gambling and speculate how best to involve parents in efforts aimed at preventing youth gambling problems.

Table 1
Number of Participants by Province: Actual and Weighted Responses

Province	N	Percentage	Percentage of Canadian residents	Weighted response rates
Alberta	500	18.45%	9.3%	239
British Columbia	500	18.45%	13.9%	355
Manitoba	36	1.33%	3.9%	101
N.B./Nfld./P.E.I.	43	1.59%	0.8%	19
Nova Scotia	500	18.45%	6.9%	177
Ontario	394	14.54%	40.8%	1044
Quebec	237	8.75%	21.1%	540
Saskatchewan	500	18.45%	3.3%	85
Total	2710	100.0%	100.0%	2560

Method

Participants

Participants who had one or more children between 13 and 18 years of age were recruited via the Internet. Approximately 40,000 Canadian individuals were contacted via email to complete the survey, with 3,315 people responding to the survey and 2,710 individuals completing the entire survey. The survey was originally developed in English and then translated into French, so it was available in both official languages. In total, 237 parents completed the survey in French, representing 8.7% of completed surveys.

The inclusion criteria included being the parent of at least one child between the ages of 13 and 18, residing with one or both parents. This criterion ensured that parents were aware of the issues facing adolescents. Participants with multiple children between the ages of 13 and 18 were asked to report on the oldest child within that age range. The sample included responses from residents of all Canadian provinces but did not include residents of the three territories. The number of participants from each province is provided in Table 1. An unequal distribution across the country was included, as only certain provinces contributed to the overall funding of the project. The data were then weighted to reflect the Canadian population distribution by province as outlined by Statistics Canada (2008). Participants from the provinces of Alberta and Quebec were required to have at least one child between 13 and 17 years of age, as the legal restrictions on gambling in those provinces exclude individuals under 18 years of age (rather than 19 in other provinces). Participation in the survey was monitored to ensure that the final sampling encompassed a balanced gender distribution and that it also included parents with children of varying ages.

In total, 846 participants were male (31.2%) and 1,864 were female (68.8%). The data used in the analysis were again weighted by parent gender to obtain an approximate equal number of men and women to use with the analysis. The mean age of respondents was

Table 2
Ages and Genders of the Children of Respondents

	All ages N (Percentage)	13–14 years	15–16 years	17–18 years
Male	1383 (51.0%)	416 (15.4%)	532 (19.6%)	435 (16.1%)
Female	1327 (49.0%)	398 (14.7%)	528 (19.5%)	401 (14.8%)
Total	2710 (100%)	814 (30.0%)	1060 (39.1%)	836 (30.8%)

Note. Includes answering questions on household income and level of education obtained.

45, with most parents falling between the ages of 45 and 54. The distribution of children by gender and age is presented in Table 2. Compared to the recent Canadian census data, participants are more likely to live in a town or rural area, have higher levels of education, and have higher levels of income.

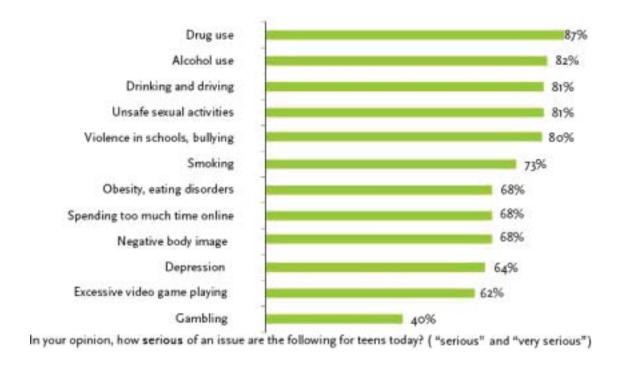
Measures

The survey assessed the attitudes that parents held toward gambling in comparison to other risky behaviours, parental involvement in gambling with their children, and attitudes/awareness regarding youth education and prevention for gambling and other risky behaviours. Questions were developed by the research team and pilot tested, and data were collected over a four-month period. Some of the questions used in the study were adapted from the Parent Smoking Communication Survey-II (Herbert & Schiaffino, 2007) and the South Oaks Gambling Screen (Lesieur & Blume, 1987). In addition, participants were also required to complete a section with demographic information.

Procedure

Participants were contacted via e-mail to participate in the study electronically. They were selected from a database (available to the research company *Research Now*) that contained contact information for individuals registered to complete online surveys. Included in the email were the inclusion criteria, a list of the tasks required to complete the study, and a description of any risks involved. Upon reading the message, participants provided their consent by selecting the "continue" option. The sequence of questions was determined automatically by the survey software (e.g., questions that were not relevant to specific participants based upon their responses were skipped and not presented). The program automatically removed incomplete surveys from the database, so that only completed surveys were accepted. Upon completion of the study, participants were entered into a draw for a \$1,000 prize or received \$5, depending upon recruitment procedures. The entire survey took approximately 30 minutes to complete.

Figure 1. Parental perception of the seriousness of certain issues that adolescents may encounter.



Results

In general, measures of central tendency were computed for all questions. Where comparisons were made between groups, either chi-square analyses or ANOVAs were performed.

Seriousness of Gambling as an Issue

Parents were asked to rate the overall seriousness of a diverse set of 12 adolescent issues that may affect their child by indicating their level of agreement on a 5-point Likert scale (1 = not at all serious, $5 = very \, serious$). These issues were gambling, drug use, alcohol use, drinking and driving, unsafe sexual activities, violence in schools/bullying, smoking, obesity/eating disorders, spending too much time online, negative body image, excessive video game playing, and depression. As shown in Figure 1, drug use was perceived by parents as being the most serious issue (87% viewed the issue as either serious or very serious), followed by alcohol use (82%), drinking and driving (81%), and unsafe sexual activities (81%). Of all the potential problematic behaviours, gambling was viewed by parents as being the least serious. Overall, only 40% of all parents viewed adolescent gambling as either serious or very serious. Parents were also asked whether each of the 12 issues had affected their child personally. The most commonly reported issue was bullying/violence, with 28.3% of parents indicating that their child had been personally involved. Gambling was the issue that parents were least likely to mention as having affected their child personally (1% of parents), with no differences based on the gender or age of the child. Interestingly, approximately a

Table 3
Parents' Support of Gambling

Statements in support of gambling	Mean	SD
If you really know the game, gambling can be an easy way to make money.	1.86	0.95
Gambling is a good way for community organizations to raise funds.	2.78	1.11
Gambling can be a good way to relieve boredom.	2.16	1.04
It is acceptable for teens to watch professional poker tournaments or TV shows featuring gambling.	2.70	1.00
Gambling for money is acceptable if you are just playing with friends.	2.30	1.00
There is nothing wrong with teens' gambling occasionally.	2.18	1.03
Statements against gambling	Mean	SD
It is impossible to gamble responsibly.	2.70	1.17
Lottery and scratch tickets should be kept out of sight in stores.	2.75	1.17
Teens are more at risk for problem gambling than adults.	2.85	1.50

Note. Based on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

third of parents (34.2%) noted that their child had not been affected by any of the issues presented.

Perceptions About Adolescent Gambling

Parents provided their opinion on a number of gambling statements attempting to assess their acceptance of their child's gambling behaviour. Examples of the statements are, "There is nothing wrong with teens gambling occasionally," "Gambling can be a good way to relieve boredom," "Gambling is a good way for community organizations to raise funds," and "Gambling for money is acceptable if you are just playing with your friends." The majority of parents disagreed with these positive statements about gambling, although at least one parent strongly agreed with each of the statements (see Table 3). Parents strongly disagreed with the statement, "If you really know the game, gambling can be an easy way to make money." There were some differences with respect to parents' agreement with these statements based upon the age of their child. Parents of 13-to-14-year-old children were more likely to disagree with the statement, "Nothing is wrong with gambling occasionally" $(F(2, 2412) = 4.22, p < 0.05, \eta_p^2 = 0.004)$, while parents of 17- to 18-year-olds reported being more likely to think that it is acceptable for them to watch poker on television (F(2,2224) = 4.45, p < 0.05, $\eta_p^2 = 0.004$). Parents disagreed that teens are more at risk for problem gambling than adults, that it is impossible to gamble responsibly, and that lottery and scratch tickets should be kept on retail store counters. Although parents were unlikely to agree with many of the positive statements about gambling, they were also not very likely to strongly endorse statements that portray gambling as a negative activity for adolescents.

Information about Gambling for Parents

Only 8.1% of parents replied that their child had ever brought home information from school related to gambling prevention. In addition, a small number of parents (9.7%) reported that their child had participated in a school-based prevention or education program concerning the potential risks of gambling. By comparison, parents reported that their school had provided considerable prevention programs or educational material for their child on other adolescent risky behaviours, including sex education (82.9%), bullying (79.9%), drug use (79.8%), cigarette smoking (66.7%), alcohol use (64.2%), and eating disorders (39.4%). Only a small number of parents (7.7%) reported that their child had not received any educational material or been provided with prevention programs for any of the abovementioned behaviours.

Parents were also requested to rate the resources available on a number of adolescent topics, including gambling, smoking, alcohol use, drug use, eating disorders, and safe sex. Parents perceived the best information was available for smoking (69%), with gambling rated as having the poorest available information (35% of parents rated the information available as *good* or *excellent*). Parents noted that they would prefer receiving gambling information via school bulletins (57%), brochures (46%), and websites (42%).

Participation in Gambling with Children

To assess the impact of parental behaviours, parents were asked to indicate those gambling activities in which they participated with their child for money. Overall, approximately 60% of parents reported having engaged in some form of gambling (for money) with their child. The most commonly participated-in activities were purchasing joint lottery scratch tickets (40%), raffle tickets for fundraising (36%), and lottery draw tickets (12%). Many of the activities had very low participation levels, including video lottery terminal (VLT) gambling and casino table games, in which only 1% of parents reported having participated with their child.

Children's gambling behaviour, without parent involvement, was also investigated based upon parental reports. Overall, 12.5% of parents stated that they were aware their child was gambling. Parents were more likely to be aware of their son taking part in such an activity (17.7%) than of their daughter (7.3%) ($\chi^2(1, N=2559)=62.59, p<0.001$), with the level of awareness of this activity increasing with their child's age ($\chi^2(2, N=2559)=60.28, p<0.001$). Only 7.6% of parents of 13- to 14-year-olds reported being aware of their child's gambling, whereas 11.1% of parents of 15- to 16-year-olds and 20.1% of parents of 17- to 18-year-olds reported being aware of their child's gambling.

Approximately half of all parents (52.1%) reported that they would be concerned if their child gambled with any amount of money, with 71.7% being concerned with amounts less than \$5. Only 9.3% of parents noted that their child would have to gamble with amounts greater than \$20 before they would become concerned. As the age of children increased, parents became less concerned about the amount of money their child wagered $(F(2, 2233) = 58.77, p < 0.001, \eta_p^2 = 0.05)$. Overall, 60.4% of parents of 13- and

Table 4
What Parents Would Do if Their Child Came to Them with a Gambling Problem

Action	Mean	SD
Have a discussion about the dangers of gambling	4.67	0.62
Seek information on teen gambling	4.52	0.80
Set controls and monitor child's internet activity	4.46	0.84
Set strict curfews	4.33	0.90
Seek help from a professional	4.28	0.96
Restrict child's access to money	4.24	1.00

Note. Based on a 5-point Likert scale ranging from 1 = not at all likely to 5 = very likely.

14-year-olds were concerned when their child gambled with any amount of money, with 51.9% of parents of 14- to 15-year-olds and 42.5% of parents of 17- to 18-year-olds being similarly concerned.

Helping with Children's Gambling Problems

Parents revealed their priorities for help-seeking strategies should their child have a gambling problem. Discussing the dangers of involvement in gambling activities (M = 4.67/5.00, SD = 0.63) was the predominant response, followed by seeking additional information about teen gambling (M = 4.52/5.00, SD = 0.80). Parents were most likely to restrict their child's access to money (M = 4.11/5.00, SD = 0.97) if it was suspected they were gambling or had a gambling problem (see Table 4).

The resources that parents were most likely to use if their child came to them with a gambling problem were Gamblers Anonymous (45%), their child's school guidance counsellor (39%), an addiction centre (34%), and online resources (34%). Figure 2 shows a complete breakdown of the utilization of all resources. Although there was no single resource that the majority of parents reported they would use, only 3% of parents indicated that they would not seek help or use any of the resources available.

Discussion

Adolescents have been reported to be at increased risk for developing a gambling problem in comparison to adults and have high rates of gambling participation (see the recent comprehensive review by Volberg et al. (in press). Previous studies have shown that adolescents perceive that their parents generally approve of their gambling and report that gambling with family members is a relatively common occurrence (Gupta & Derevensky, 1997; Ladouceur & Mireault, 1988). Rather than merely relying on adolescents' perceptions, the current study, using a Canadian national sample, examined parents' knowledge and attitudes toward their child's gambling behaviour.

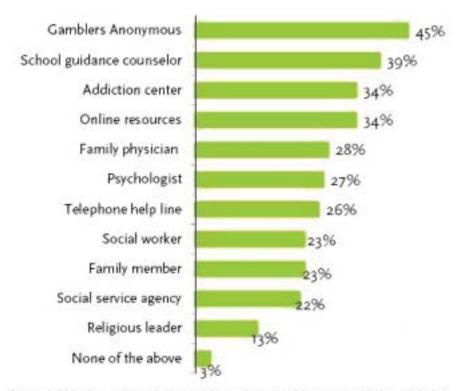


Figure 2. Resources parents would access if their child developed a gambling problem.

If your child had a problem with gambling, where would you most likely seek help?

Canadian parents clearly revealed that gambling is not viewed as a potentially serious issue, with fewer than 50% of parents rating it to be a serious or very serious concern. Similar to other studies, drug use, alcohol use, and drinking and driving were identified by parents as being the three most serious issues (Beck, 1990; Beck, Scaffa, Swift, & Ko, 1995; Blanchard, Gurka, & Blackman, 2006; Kypri, Dean, & Stojanovski, 2007). It would be difficult to argue that youth gambling is a more serious issue than drug or alcohol use by teens, as the latter activities have potentially addictive properties along with well-established negative impacts upon physical health, psychological well-being, and relationships.

The risks associated with drug and alcohol abuse have largely been portrayed in the mass media, and the effects that these substances have on individuals are established and well known by adolescents and their parents. More recently, drinking and driving has received similar attention from the media, with its potential consequences being acknowledged. It is thus not surprising that parents viewed gambling as a less serious issue than drug and alcohol consumption. Nevertheless, it is surprising how relatively unimportant youth gambling is perceived to be by parents, considering that excessive gambling does have well-established and recognizable problems associated with it, including negative financial consequences, impaired relationships, mental health issues, and academic problems. The fact that provincially regulated gambling is prohibited to minors, similar to alcohol consumption and smoking, seems to suggest that gambling among youth should be viewed by

parents on a somewhat similar scale. Of the 12 potentially problematic and risky adolescent behaviours presented to parents, gambling was the issue of least concern. However, some caution is necessary, given the concerns about the generalizability of this current study's sample.

Despite parents' identifying gambling to be the least serious issue facing adolescents, a number of findings suggest that parents perceive teen gambling to be of some concern. Parents accurately noted the potential risks associated with excessive gambling. Youth gambling was not perceived to be a harmless activity. Very few parents agreed with the statement that there is nothing wrong with occasional teen gambling. However, one could ask the question: Are they aware of their child's gambling problem, or, as is the case with other adolescent risky behaviours, have they chosen to ignore it?

Gambling, especially youth gambling, has often been referred to as a hidden addiction. As such, it was not surprising that only 1% of parents reported that their child had been directly negatively impacted by excessive gambling. Given that teens are quite capable of hiding their gambling and/or gambling problems from their parents, the concerns raised by their parents may be negligible. Contributing to the lack of concern is the normalization of gambling within Canadian society. Provincial governments are expanding and promoting gambling, and advertisements for multiple forms of gambling are becoming widespread in Canada. Government ownership of much of the gambling and advertising for gambling activities may have removed any stigma associated with gambling. Advertising of gambling as a socially enjoyable recreational activity has supplanted the drawbacks and negative correlates associated with excessive gambling. Since many gambling activities are restricted to adults, and depictions of adolescent gambling in the media are uncommon, individuals typically do not view gambling as an adolescent activity, despite multiple studies showing that gambling in general and problems associated with gambling are common among youth (Dickson, Derevensky, & Gupta, 2004a; Jacobs, 2004; Shaffer & Hall, 1996; Shaffer et al., 1999; Volberg et al., in press).

Parental gambling involvement with children

Similar to previous studies, the current study found that the majority of parents report some form of gambling with their children. Only 40% of parents reported that they had never gambled for money with their child. However, it is important to note that the frequency of gambling is not high, as most parents report gambling with their child infrequently. The type of gambling that parents most often participated in with their children was purchasing lottery scratch tickets and raffle fundraising tickets. Fewer than 2% of parents participated in Keno, VLTs, or casino table games with their children. It is plausible that some parents are introducing their children to forms of gambling that they otherwise would not have access until they reach the legal age. Ample evidence also suggests that early initiation is a predictor of later gambling problems (Gupta & Derevensky, 1998; Productivity Commission, 1999).

Despite the majority of parents' reporting that they have gambled at least once with their child, only a relatively small percentage of parents reported being aware of their child's gambling participation without their involvement. This is interesting in light of findings

that indicate that between 70% and 90% of adolescents report having gambled for money in the past year (Gupta & Derevensky, 1998; Jacobs, 2000; Shaffer & Hall, 1996; Shaffer et al., 1999), making prevalence reports by parents in the current study significantly underreported. Multiple studies of adolescents have confirmed that the rate of adolescent gambling is much higher than the 32% reported by parents in the current study. These results support the theory that parents, in general, remain unaware of their children's gambling behaviour. This finding, while disconcerting, is not particularly surprising, given that parents also underestimate their children's alcohol and drug use (Beck et al., 1995; Stanton et al., 2000).

Despite the majority of parents' reporting they had gambled with their child, parental opinions and attitudes toward gambling suggest that they are not comfortable with the idea that their children may be gambling. While parents generally do not believe adolescent gambling to be a serious problem, they would nevertheless be concerned if they became aware that their child was gambling. Very few parents strongly agreed with the statements, "There is nothing wrong with teens gambling occasionally," "Gambling can be a good way to relieve boredom," and "If you really know the game, gambling can be an easy way to make money." Although most parents tended to disagree with statements that endorse gambling, a small but identifiable minority of parents suggested that there is nothing wrong with teens' gambling occasionally.

Information and resources available to parents

The lack of readily available information and programs concerning youth gambling remains a significant problem. Only 35% of parents that were aware of programs thought that the available information on gambling was good or excellent. In contrast, 69% of parents thought that the information available to them on smoking and drug use was either good or excellent. The information that children are currently provided with concerning gambling is perceived by parents to be less useful in comparison to other issues facing teens. The minimal information currently available to parents about youth gambling may need to be re-examined for its quality and effectiveness, although it is possible that this perception by parents is due to their limited exposure to such programs about gambling.

In general, parents would like to receive more information on youth gambling. Such information can be provided to them through school newsletters or bulletins. Using schools to distribute information on adolescent gambling is highly advantageous. In addition to materials for parents, new initiatives should be reviewed toward educating youth about the risks associated with excessive gambling (see Derevensky, Gupta, Dickson, & Deguire, 2004).

Several new public service announcements raising the risks associated with youth gambling have been developed for parents and are currently being evaluated. This seems like a viable way to reach a large majority of parents, as the overwhelming majority of households in Canada with school-age children has a television (98%) and access to the Internet (83%) (Statistics Canada, 2005; Statistics Canada, 2008). However, using the Internet to raise awareness about adolescent gambling may be difficult, as individuals are not likely to open

web links on issues not of interest. While advertising on popular general websites that receive considerable Internet traffic may be useful, the costs are likely prohibitive.

Limitations

Despite the large sample size, only individuals with access to the Internet were able to participate. In particular, individuals were part of a target population previously identified by the research company specializing in Internet data collection. Such individuals were more likely to have high-speed access, be willing to participate in online surveys, have higher than average incomes, and have attended a postsecondary educational institute. Thus, the current study may be overrepresented by individuals belonging to these groups. Second, the overall response rate was not high. Over 40,000 individuals were contacted and invited to participate in the study, with only 3,315 responding and 2,710 completing the study. However, many of those contacted may not have met the criteria for inclusion in the study (this number is unknown). Since only fully completed surveys were used to calculate the results, the response rate was less than 7%. Response rates to Internetbased surveys are typically lower than for mail-based surveys (Kaplowitz, Hadlock, & Levine, 2004; Kongsved, Basnov, Holm-Christensen, & Hjollund, 2007) and usually have a response rate that is 11% lower than for research incorporating other methods (e.g., mail, telephone, and fax surveys) (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008). Finally, a disproportionate number of females participated in the study. While their responses were weighted, it would be important to try to balance the numbers by gender in the future. Questions remain as to the representativeness of the sample, and no reliability or validity checks were performed. As such, further research is warranted.

Conclusions

Gambling, despite being a growing issue, is not perceived by parents to be a serious concern. If we are to curtail adolescent gambling, thereby reducing the number of youth that are negatively impacted, parents must become a partner in effective prevention initiatives. It is problematic that the majority of parents report having gambled at least once with their child in the past year, given that such behaviour is often not accompanied by discussions urging caution. Despite what appears to be parental indifference, there does seem to be a growing concern, and parents appear willing to receive information and work with professionals. Further follow-up with parents seems warranted.

References

Adlaf, E., Paglia-Boak, A., & Ialomiteanu, A. (2006). Underage gambling in Ontario casinos. *Journal of Gambling Issues*, 16.

Azmier, J.J. (2000). *Canadian gambling behaviour and attitudes*. Calgary, AB: Canada West Foundation.

Beck, K.H. (1990). Monitoring parent concerns about teenage drinking and driving: A

random digit dial telephone survey. *American Journal of Drug and Alcohol Abuse*, 16, 109–124.

Beck, K.H., Scaffa, M., Swift, R., & Ko, M. (1995). A survey of parent attitudes and practices regarding underage drinking. *Journal of Youth and Adolescence*, 24, 315–334.

Blanchard, L.T., Gurka, M.J., & Blackman, J.A. (2006). Emotional, developmental, and behavioral health of American children and their families: A report from the 2003 National Survey of Children's Health. *Pediatrics*, *117*, 1202–1212.

Canadian Partnership for Responsible Gambling. (2009). *Canadian Gambling Digest*, 2007–08. Retrieved at:

http://www.cprg.ca/articles/Canadian_Gambling_Digest_2007_2008.pdf

Cox, B.J., Yu, N., Afifi, T.O., & Ladouceur, R. (2005). A national survey of gambling problems in Canada. *Canadian Journal of Psychiatry*, *50*, 213–217.

Derevensky, J.L., Gupta, R., Dickson, L., & Deguire, A.-E. (2004). Prevention efforts toward reducing gambling problems. In J. Derevensky & R. Gupta (Eds.), *Gambling problems in youth: Theoretical and applied perspectives* (pp. 211–230). New York: Kluwer Academic/Plenum Publishers.

Dickson, L., Derevensky, J.L., & Gupta, R. (2004a). Youth gambling problems: A harm reduction prevention model. *Addiction Research and Theory*, *12*, 305–316.

Dickson, L., Derevensky, J.L., & Gupta, R. (2004b). Harm reduction for the prevention of youth gambling problems. *Journal of Adolescent Research*, 19, 233–263.

Felsher, J., Derevensky, J.L., & Gupta, R. (2004). Lottery participation by youth with gambling problems: Are lottery tickets a gateway to other gambling venues? *International Gambling Studies*, *4*, 109–125.

Felsher, J.R., Gupta, R., & Derevensky, J.L. (2001, June). *An examination of lottery ticket purchases by minors*. Paper presented at the annual meeting of the National Council on Problem Gambling, Seattle, WA.

Fisher, S. (1999). A prevalence study of gambling and problem gambling in British adolescents. *Addiction Research*, 7, 509–538.

Gupta, R., & Derevensky, J.L. (1997). Familial and social influences on juvenile gambling behavior. *Journal of Gambling Studies*, *13*, 179–192.

Gupta, R., & Derevensky, J.L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies*, *14*, 319–345.

Hardoon, K.K., Gupta, R., & Derevensky, J.L. (2004). Psychosocial variables associated with adolescent gambling. *Psychology of Addictive Behaviors*, 18, 170–179.

Herbert, D.F., & Schiaffino, K.M. (2007). Adolescents' smoking behavior and attitudes: The influence of mothers' smoking communication, behavior and attitudes. *Journal of Applied Developmental Psychology*, 28, 103–114.

Jacobs, D.F. (2000). Juvenile gambling in North America: An analysis of long term trends and future prospects. *Journal of Gambling Studies*, 16, 119–152.

Jacobs, D.F. (2004). Youth gambling in North America: Long-term trends and future prospects. In J. Derevensky and R. Gupta (Eds.), *Gambling problems in youth: Theoretical and applied perspectives* (pp. 1–24). New York: Kluwer Academic/Plenum Publishers.

Jessor, R. (1998). New perspectives on adolescent risk behaviour. In R. Jessor (Ed.), *New perspectives on adolescent risk behaviour* (pp. 1–12). Cambridge, U.K.: Cambridge University Press.

Kaplowitz, M.D., Hadlock, T.D., & Levine, R. (2004). A comparison of web and mail survey response rates. *Public Opinion Quarterly*, 68, 94–101.

Kongsved, S.M., Basnov, M., Holm-Christensen, K., & Hjollund, N. (2007). Response rate and completeness of questionnaires: A randomized study of Internet versus paper-and-pencil versions. *Journal of Medical Internet Research*, *9*, 39–48.

Kypri, K., Dean, J.I., & Stojanovski, E. (2007). Parent attitudes on the supply of alcohol to minors. *Drug and Alcohol Review*, *26*, 41–47.

Ladouceur, R., Boudreault, N., Jacques, C., & Vitaro, F. (1999). Pathological gambling and related problems among adolescents. *Journal of Child and Adolescent Substance Abuse*, *8*, 55–68.

Ladouceur, R., & Mireault, C. (1988). Gambling behaviors among high school students in the Quebec area. *Journal of Gambling Behavior*, 4, 3–12.

Lesieur, H.R., & Blume, S.B. (1987). The South Oaks Gambling Screen (SOGS): A new instrument for the identification of problem gamblers. *American Journal of Psychiatry*, 144, 1184–1188.

Manfreda, K.L., Bosnjak, M., Berzelak, J., Haas, I., & Vehovar, V. (2008). Web surveys versus other survey modes: A meta-analysis comparing response rates. *International Journal of Market Research*, 50, 79–104.

Productivity Commission. (1999). *Australia's gambling industries*. Victoria, NSW, Australia: Productivity Commission Report.

Shaffer, H.J. (1996, April). *The natural history of gambling: Initiation and its consequences*. Paper presented at the 2nd New England Conference on Compulsive Gambling, Hartford, CT.

Shaffer, H.J., & Hall, M.N. (1996). Estimating prevalence of adolescent gambling disorders: A quantitative synthesis and guide towards standard gambling nomenclature. *Journal of Gambling Studies*, *12*, 193–214.

Shaffer, H.J., Hall, M.N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: A research synthesis. *American Journal of Public Health*, 89, 1369–1376.

St-Pierre, R. (2008). *Retailer compliance with youth access regulatory policies*. Unpublished master's thesis, McGill University.

Stanton, B.F., Li, X., Galbraith, J., Cornick, G., Feigelman, S., Kaljee, L., et al (2000). Parental underestimates of adolescent risk behavior: A randomized, controlled trial of a parental monitoring intervention. *Journal of Adolescent Health*, *26*, 18–26.

Statistics Canada. (2005, February 5). CANSIM II series V969637, Table number 358-0003. Characteristics of household Internet users, by location of access (Any location), series title *Household Internet survey*. Ottawa: Statistics Canada. Retrieved June 16, 2009, from CANSIM II.

Statistics Canada. (2008, December 22). CANSIM II series V28469597, Table number 203-0020. Selected dwelling characteristics and household equipment (Household electronics and vehicles), series title *Survey of household spending (SHS)*, *household equipment at the time of interview, by province, territory and selected metropolitan areas, annual*. Ottawa: Statistics Canada. Retrieved June 16, 2009, from CANSIM II.

Stinchfield, R. (2000). Gambling and correlates of gambling among Minnesota public school students. *Journal of Gambling Studies*, *16*, 153–173.

Turner, N.E., Weibe, J., Falkowski-Ham, A., Kelly, J., & Skinner, W. (2005). Public awareness of responsible gambling and gambling behaviors in Ontario. *International Gambling Studies*, *5*, 95–112.

Vachon, J., Vitaro, F., Wanner, B., & Tremblay, R.E. (2004). Adolescent gambling: Relationships with parent gambling and parenting practices. *Psychology of Addictive Behaviors*, 18, 398–401.

Volberg, R.A., Gupta, R., Griffiths, M.D., Olason, D.T., & Delfabbro, P. (in press). An international perspective on youth gambling prevalence studies. *International Journal of Adolescent Medicine and Health*.

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Winters, K.C., & Anderson, N. (2000). Gambling involvement and drug use among adolescents. *Journal of Gambling Studies*, *16*, 175–198.

Winters, K.C., Stinchfield, R.D., Botzet, A., & Anderson, N. (2002). A prospective study of youth gambling behaviors. *Psychology of Addictive Behaviors*, 16, 3–9.

Winters, K.C., Stinchfield, R.D., & Kim, L.G. (1995). Monitoring adolescent gambling in Minnesota. *Journal of Gambling Studies*, 11, 165–183.

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