

An Empirical Study Examining the Impact of Gambling Advertisements on Adolescent Gambling Attitudes and Behaviors

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Abstract Based upon a previous qualitative study a questionnaire ascertaining adolescents' awareness of gambling advertisements and their impact upon their behavior was developed and administered to 1,147 youth between the ages of 12 and 19. The findings suggest that almost all youth report being exposed to advertising with many individuals indicating being bombarded with messages, especially through pop-up ads viewed on the Internet. Sixty-one percent of youth reported receiving spam gambling advertisements by e-mail and 96% had seen TV advertisements for gambling. The underlying perceived message is that winning is easy, the chance of winning is high and that gambling is an easy way to become wealthy. While most youth are dismissive of the messages and are aware of the risks associated with gambling, a large percentage of youth report that these messages prompt them to gamble. Rather than inciting non-gamblers to begin gambling, advertisements appear to serve the function of maintaining established gambling habits and were particularly problematic to youth with gambling problems. Gender and developmental trends were noted.

Keywords Youth · Gambling · Advertising · Pathological gambling

The past decade has witnessed an increased expansion in the types of available gambling activities and their accessibility. While traditional forms of gambling are generally thought to be an adult activity, today's youth are not immune to their lure. On the contrary, they appear to be actively participating in a wide diversity and array of gambling activities (Derevensky 2008; Gupta and Derevensky 2008; Jacobs 2004). Given the widespread international financial crisis, the likelihood is that gambling venues and accessibility will increase with some jurisdictions even considering lowering the legal age to gamble. Concomitant with some of the newer forms of gambling (e.g., Internet gambling), there has been a significant increase in the advertising of different games and gambling opportunities

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(Mongahan and Derevensky 2008; Najavits et al. 2003). While certain jurisdictions have mandated responsible codes of practices with respect to advertising, its impact upon adolescents remains unknown. To what extent are adolescents aware of gambling advertisements? Do gambling advertisements promote the initiation or maintenance of gambling? Do today's youth tune out or habituate to the bombardment of gambling advertisements? The answers to these questions remain unclear.

While there is a paucity of research examining the potential effects of gambling advertisements on children and adolescents behavior (Monaghan and Derevensky 2008; Youn et al. 2000), it is widely accepted that the media has a powerful impact upon people's behaviors and attitudes (De Pelsmacker et al. 2002; Feeney 2004; Wiseman et al. 2005). An abundance of research has demonstrated the impact of alcohol advertisements upon youth drinking behaviors and intentions. Similarly, research on the impact of tobacco advertising on youth is abundant despite recent attempts to prohibit smoking advertisements due to their health risks in many jurisdictions. Research on both alcohol and smoking advertisements has shown their strong impact upon the initiation, maintenance and brand loyalty for their products (Ellickson et al. 2005; Martin et al. 2002; Saffer 2002; Wyllie et al. 1998).

Gambling Advertising

Numerous gambling advertisements portray gambling as a glamorous lifestyle, filled with excitement and promoting a sense of fantasy (Derevensky et al. 2009). These images can lure individuals by convincing them that a glamorous lifestyle can be easily achieved. Current research on the effects of gambling advertisements is scarce, as few researchers have examined gambling advertising and its impact (Griffiths 2005). Even less research exists on the impact of gambling advertising on youth behaviors and attitudes towards gambling.

Some early studies appear to shed light on the potential impact of advertising on youth. Felsher et al. (2004), studying adolescent lottery ticket purchases, reported that the majority of adolescents reported viewing lottery advertisements, with most advertisements being recalled through television (90%), billboards (69%), newspapers (68%), and magazines (55%). As well, a large number of adolescents reported viewing scratch/instant tickets at the check-out counters of local convenience stores. Overall, 39% of adolescents who reported seeing any of the ads admitted they would be more likely to purchase a ticket after viewing them. Developmental differences in reactions and preferences for types of lottery ads suggested that older adolescents (age 15–17) reported seeing ads on television most often, while younger adolescents reported viewing lottery ads primarily in newspapers.

Gambling Advertising and Youth

A small qualitative study using adolescents age 13–17 suggested that the entire sample of youth were familiar with gambling ads and that gambling has been a part of their life experiences through their peers, family and community (Korn et al. 2005). A content analysis, based upon the messages presented and the style of the ads taken from Ontario, Canada further suggested that the themes present included gambling as entertaining and exciting, it represents a form of escapism, and that anyone can win (Korn et al. 2005).

In a precursor to the current study, Derevensky et al. (2009) using a qualitative methodology with 143 youth between 12–19 years of age similarly found that there is a general perception that gambling advertisements promote gambling as entertaining,

exciting, enjoyable and an easy opportunity to make money. Humour, bright and flashy colours, the use of celebrities, provocative females (often on Internet gambling sites) and glitz were observed by these youth as prominent features of commercial gambling ads. Some participants also expressed a dislike for gambling ads due to their ubiquitous prevalence (e.g., television and in particular an inordinate number of advertisements via the Internet through pop-up messages). Youth discussed numerous messages contained within gambling ads and a variety of opinions emerged as to which individuals appear to be targeted and influenced by gambling ads. Nevertheless, even though they are aware they are legally prohibited from engaging in regulated forms of gambling they believe that the advertisements are targeting them. Adolescents remain acutely aware of the fact that gambling ads place significant emphasis on the possible acquisition of wealth, that most forms of gambling represent immediate gratification and a relatively easy opportunity to change their lifestyle.

In a recent qualitative study of adult problem gamblers in Sweden, Binde (2009) reported that a quarter of problem gamblers believed the advertisements had no impact on their problem, a little more than half indicated that it had a marginal impact upon their behavior and one fifth indicated it had a tangible impact. It is important to note that none considered advertising to be the primary cause of their gambling problem. However, these advertisements appeared to serve as triggers to continue gambling and were perceived to be a deterrent to their decision to gamble less or stop gambling.

The current study seeks to have a better understanding of the impact of gambling advertising on youth gambling behavior. In particular, it seeks to determine whether such advertising may be promoting the initiation of gambling behavior and/or its maintenance. Of significant interest, this research seeks to understand its impact upon youth already experiencing gambling-related problems.

Methodology

Participants

The participants consisted of 1,147 (575 males; 572 females) adolescents from 5 secondary schools in Quebec and 3 secondary schools in Ontario. The age distribution included 220 students in Grades 7–8 (ages 12–14), 502 students in Grades 9–10 (ages 14–16) and 425 students in Grades 11–12 (ages 16–19). All schools were from middle class SES areas and represented a general population of secondary school adolescents.

Instruments

Gambling Activities Questionnaire (GAQ) [(Gupta and Derevensky 1996)]. The GAQ consists of 13 items and assesses four general domains related to gambling behavior: *Descriptive information* including prevalence and types of activities; *familial and peer gambling*; *social networks*; and *academic achievement*. Questions within each section domain are discrete, analyzed individually, and no cumulative scores are calculated.

DSM-IV-MR-J (Fisher 2000)]. This instrument is a revised version of the DSM-IV-J and includes 12-items (nine-categories) used to screen for problem gambling during adolescence. The items are modeled after the DSM-IV (APA 1994) criteria for diagnosis of adult pathological gambling. The revised instrument, the DSM-IV-MR-J (MR= multiple

response, J=juvenile), was developed for use with adolescents that have gambled during the past year. To compensate for the lack of opportunity for probing, most of the questions in the revised instrument have been given four response options: “never,” “once or twice,” “sometimes,” or “often.” The DSM-IV-MR-J represents a more conservative classification system of problem gambling groups in that various questions now require an endorsement above a certain severity level to receive a score of 1. Any score of four of the nine categories or greater is indicative of significant gambling problems (often referred to as probable pathological gamblers). At-risk gamblers have endorsement rates of 3 while social gamblers have endorsement rates of 1–2 on the scale. The instrument assesses a number of important variables related to gambling: progression and preoccupation, tolerance, withdrawal and loss of control, escape, chasing, lies, and deception, illegal activities and family or school disruption. Internal consistency reliability for this scale is adequate, with Cronbach’s $\alpha = .75$ (although slightly lower than .78 for the original DSM-IV-J screen) (Fisher 2000).

The Effects of Gambling Advertising Questionnaire (EGAQ) (Derevensky et al. 2007) was developed specifically for this study following collating information from an earlier qualitative study of 143 students (Derevensky et al. 2009). This questionnaire sought to ascertain information concerning the types and frequency of observed gambling advertisements, perceptions of the underlying messages, the qualities most influential, the perceived target of the advertisement, behavioral reactions to advertisements, the impact of advertisements and the ability to recall several advertising campaigns. The EGAQ was field-tested, refined, items are discrete and takes approximately 15–20 min to complete.

Procedure

Data collection was completed in a classroom, cafeteria, or school library depending upon the available facilities. In those schools where a large number of students agreed to participate or where students were scattered in various classrooms large group administration was completed. During this time, additional research assistants ensured appropriate supervision and anonymity of responses. Informed consent was obtained from parents and children prior to their participation, student participation was voluntary, and individuals were able to terminate their participation at any time.

Participating students completed all instruments in one class period, taking approximately 20–30 min. No deceptive practices were included and anonymity and confidentiality was assured. Teachers were requested to either leave the room or remain at the front of the classroom in order to respect participants’ privacy. A trained researcher was present at all times to answer any questions and provide clarification if necessary.

Results

Gambling Behavior

A relatively high rate of frequent and problematic gambling was reported (see Table 1). These youth report gambling at a young age, with almost one quarter of the sample first reporting gambling for money before reaching adolescence. Consistent with the majority of previous studies, males were significantly more likely than females to report being frequent and problem gamblers. Almost one in five males reported gambling weekly, and more than

Table 1 Gambling Participation and Severity of Gambling Problems

	Percentage			<i>p</i>
	Males	Females	Total	
Frequency of Participation				.005
Gambles at least once a week	27	9	18	
Gambles 1-3 times a month	29	24	26	
Gambles less than once a month	24	38	31	
Gambling Problem Severity				.005
Non-Gamblers	20	30	25	
Social Gamblers	54	62	58	
At-Risk Gamblers	13	6	10	
Probable Pathological Gamblers	13	2	7	
Age when started gambling				.0005
11 years or younger	29	20	24	
12-15 years old	44	23	34	
16 years and older	3	5	4	
Never gambled	13	33	23	
Gambled but not for money	11	19	15	

one in four reported gambling-related problems (i.e., at-risk and probable pathological gamblers combined) based upon scores on the DSM-IV-MR-J.

Overall, the most popular gambling activity reported was card playing. Males were more likely than females to report being involved in sports or game-related wagering. Almost half of the males reported wagering on individual sporting events while females tended to report purchasing more lottery scratch tickets, wagering on cards and playing bingo.

Perceptions About Gambling and Gambling Advertisements

Males tended to hold more positive attitudes towards gambling (see Table 2). They were more likely than females to agree with statements suggesting that gambling is a fun, enjoyable and exciting activity, an escape from daily problems and stressors, as well as a good opportunity to socialize. Their high level of agreement suggests that gambling has become an integral part the social lives among many male adolescents.

Paradoxically, a majority of adolescents, both males and females, report that gambling should be for adults only and that gambling can become a problem. Nevertheless, they view gambling as a socially acceptable form of entertainment and recreation.

As depicted in Table 2, males were significantly more likely to report positive reactions to gambling advertisements, including being excited, wanting to gamble after viewing ads, and that gambling looks like fun. Females were more likely to report negative reactions to advertisements including being bored, disinterested, and finding the ads annoying. A greater proportion of females believed that gambling advertisements delivered messages such that “your chances of winning are high” and “winning is easy.” They perceived these messages to be unrealistic. There were no gender differences in the degree to which the advertisements increased their awareness or

Table 2 Gender Differences in Perceptions about Gambling and Gambling Advertisements

	Percent in agreement		
	Males	Females	<i>p</i>
Gambling advertisements try to convince you that...			
...you should buy this product	69	74	n.s
...winning is easy	64	72	.005
...gambling is fun	81	80	n.s
...your chance of winning are high	55	65	n.s
...gamble but know the risks	43	36	n.s
...gambling can make you rich	83	79	n.s
...gambling can relieve financial problems	46	47	n.s
...gambling is an escape from daily realities	46	42	n.s
...gambling is a form of entertainment	88	83	n.s
Reaction to gambling advertisements			
Excited	36	23	.005
Hopeful	33	32	n.s
I want to try it	47	38	.005
That could be me	47	38	.005
Annoyed	54	65	.005
Disinterested	54	65	.005
Unrealistic	59	73	.005
Influence			
Sometimes or often gambled after seeing an ad	11	3	.0005
Gambling advertisements increase my interest in gambling	27	25	n.s
I don't pay attention to gambling advertisements	64	70	n.s
Gambling advertisements increase awareness of products	66	65	n.s
Attitudes towards gambling			
Gambling should be for adults	60	78	.005
Gambling can become a problem	92	97	.005
Gambling is an escape from daily problems	30	17	.005
Gambling is a fun activity	70	51	.005
Gambling is a good way to socialize	50	34	.005
If I continue to gamble, my chances will improve	19	8	.005
Gambling is a good way to make money	31	15	.005

interest in gambling. However, more males than females admitted to gambling immediately after viewing gambling advertisements.

Developmental Differences

On the whole, older respondents reported more positive attitudes towards advertisements and gambling in general (Table 3). They reported being more likely to gamble after viewing a gambling advertisement and to perceive positive messages (e.g., “winning is easy” and “your chances of winning are high”). Interestingly, a larger percentage of older respondents

Table 3 Developmental Differences in Perceptions about Gambling and Gambling Advertisements

	Percent in agreement with statement			
	Grade 7-8	Grade 9-10	Grade 11-12	<i>p</i>
Gambling ads try to convince you that...				
...you should buy this product	61	74	74	.0005
...winning is easy	57	72	69	.0005
...gambling is fun	64	83	86	.0005
...your chance of winning are high	46	64	62	.0005
...gamble but know the risks	45	39	38	n.s.
...gambling can make you rich	71	83	84	.0005
...gambling can relieve financial problems	40	49	47	n.s.
...gambling is an escape from daily realities	37	43	48	n.s.
...gambling is a form of entertainment	70	89	89	.0005
Reaction to gambling advertisements				
Excited	22	24	41	.0005
Hopeful	21	27	45	.0005
I want to try it	31	37	55	.0005
That could be me	35	40	49	.005
Annoyed	71	62	52	.0005
Disinterested	67	65	50	.0005
Unrealistic	64	71	61	.005
Influence				
Sometimes or often gambled after seeing an ad	5	5	11	.005
Advertisements increase my interest in gambling	19	23	33	.0005
I don't pay attention to gambling advertisements	70	70	61	.005
advertisements increase awareness of products	55	65	72	.0005
Attitudes towards gambling				
Gambling should be for adults	80	69	37	.0005
Gambling can become a problem	97	97	91	.0005
Gambling is an escape from daily problems	20	23	25	n.s.
Gambling is a fun activity	34	62	72	.0005
Gambling is a good way to socialize	20	42	44	.0005
If I continue to gamble, my chances will improve	10	11	18	.005
Gambling is a good way to make money	16	19	28	.0005
Weekly Gambler	11	13	28	.0005
Problem Gambler	11	14	23	.0005

held the belief that “if you continue to gamble, your chances of winning will improve.” These findings are not likely due to younger adolescents being more enlightened. The more plausible explanation would be that perceptions are altered or created such that they are consistent with their behavior (cognitive dissonance theory). This is particularly true for males who attribute winnings to skill and losing to bad luck. As such, frequently gambling adolescents may adopt new perceptions including being “due for a win” or being “on a

roll". It is nevertheless important to note an alternative explanation. Given that a large number of youth reported card/poker playing as their primary activity, there may well be a practice effect such that performance improves in poker with repeated playing. The fact that the older youth hold this belief to a greater extent than younger adolescents may suggest that they have better card playing skills. Nevertheless, it may well be that they overestimate their expertise.

The results suggest that gambling advertisements appear to have more of an impact upon older adolescents. However, it must be noted that the long-term effects of gambling advertisements are a complex and multifaceted issue, and require much more in-depth analyses before definitive conclusions can be drawn. Nevertheless, gambling advertisements seem to be consistent with fun, excitement, high success rates (such advertisements always show winners), wealth and relief from financial problems, with a sizeable proportion of adolescents reporting it provides them with an escape from reality.

Youth with Gambling Problems

Problem gamblers held more favorable attitudes towards gambling than social and non-gamblers, and were more likely to maintain the belief that one's chances improve if you gamble more (see Table 4). Such beliefs may serve as catalysts for certain problematic behaviors including chasing losses.

One may question whether problem gamblers are more influenced by gambling advertisements because they receive more exposure. To test this hypothesis, statistically significant Spearman correlations were found between problem gambling severity and viewing ads on television, radio, billboards, newspapers, magazines, and spam e-mails. Most of the correlations remained significant (see Table 5). A Kruskal-Wallis Test yielded identical results; the more severe the gambling problem the greater the exposure to gambling advertisements. In particular, pathological gamblers reported seeing many TV and magazine gambling ads, possibly reflecting differences in television watching preferences.

It is important to note that the study did not directly measure exposure to gambling advertisements but rather assessed recall of exposure by asking adolescents to respond to the frequency of observed gambling advertisements. The distinction between exposure and recall is important as recall likely varies significantly with the interest level of what is being advertised. Attention to gambling advertisements is likely heightened by individuals interested in gambling and subsequently easier to recall. Conversely, if an individual had little or no interest in gambling such advertisements would receive little attention and less likely to be recalled (the exception to this might be Internet popup messages which require some action to remove).

Vulnerability to Gambling Advertisements

In order to identify the characteristics of youth who are likely to gamble after seeing ads, youth reporting *sometimes*, *often* or *always* were classified as vulnerable while those reporting *rarely* or *never* were classified as not vulnerable. Compared to the non-vulnerable group, a number of demographic and gambling characteristics distinguished the vulnerable group. Seventy-nine percent of males ($\chi=29, p<.0005$), and 57% of youth in grades 11 and 12 ($\chi=13, p<.0005$) were in the vulnerable group. These youth were found to have held favorable attitudes towards gambling and gambling advertisements and one third of the group reported gambling weekly.

Table 4 Perceptions about Gambling and Gambling Advertisements by Gambling Behavior

	Percent in agreement			<i>p</i>
	non gamblers	social gamblers	problem gamblers	
Gambling ads try to convince you that...				
...you should buy this product	70	74	67	n.s.
...winning is easy	69	69	63	n.s.
...gambling is fun	75	82	88	.005
...your chance of winning are high	64	61	53	n.s.
...gamble but know the risks	34	39	52	.005
...gambling can make you rich	78	82	83	n.s.
...gambling can relieve financial problems	43	47	52	n.s.
...gambling is an escape from daily realities	41	43	51	n.s.
...gambling is a form of entertainment	83	86	87	n.s.
Reaction to gambling advertisements				
Excited	16	28	57	.005
Hopeful	22	32	51	.005
I want to try it	23	45	64	.005
That could be me	26	44	67	.005
Annoyed	73	59	42	.005
Disinterested	70	60	42	.005
Unrealistic	73	68	48	.005
Influence				
Sometimes or often gambled after seeing an ad	0	3	32	.005
Advertisements increase my interest in gambling	16	24	50	.005
I don't pay attention to gambling advertisements	77	67	49	.005
Advertisements increase awareness of products	66	65	70	n.s.
Attitudes towards gambling				
Gambling should be for adults	83	71	41	.005
Gambling can become a problem	96	97	85	.005
Gambling is an escape from daily problems	18	22	34	.005
Gambling is a fun activity	40	63	86	.005
Gambling is a good way to socialize	26	41	67	.005
If I continue to gamble, my chances will improve	6	10	34	.005
Gambling is a good way to make money	11	20	48	.005

To ascertain whether problem gamblers identified as vulnerable are different from other problem gamblers, a series of post-hoc comparisons were performed. Among problem gamblers, those classified as vulnerable to advertising were more likely to be weekly gamblers (72% vs. 44%, $\chi=13$, $p<.0005$). Further analysis revealed their increased participation extended to all types of gambling activities. Finally, vulnerable problem gamblers were more likely to hold the belief that if you continue to gamble, the chances of winning improves (49% vs. 26%, $\chi=10$, $p<.005$).

In order to better understand whether vulnerability to advertisements was predictive of gambling problems after controlling for age, gender, and selected predictors (gambling

Table 5 Correlations between Problem Gambling Severity and Exposure to Ads

	Location of Advertisement	Problem gambling severity ^a	<i>p</i>	Problem gambling severity (excluding non-gamblers)	<i>p</i>
Exposure to ads ^b	TV Show	.166	.000	.185	.000
	Radio	.096	.002	.093	.007
	Billboard	.125	.000	.063	n.s.
	Newspaper	.160	.000	.163	.000
	Magazine	.212	.000	.162	.000
	Internet Pop-up	.028	n.s.	-.029	n.s.
	Email Spam	.144	.000	.120	.001
	Convenience Store	.145	.000	.054	n.s.

^a Severity was coded as: 1=non-gambler, 2=social gambler, 3=at-risk gambler, 4=PPG

^b Exposure to ads seen was coded as: 1=no ads, 2=1 to 3 ads, 3=4 to 6 ads, 5=7 to 9 ads, 6=more than 10 ads

frequency, erroneous beliefs about gambling), a stepwise logistic regression was performed. With the other correlates of gambling problems already entered in the model, the addition of vulnerability significantly improved the prediction model (improvement $\chi^2=49$, $p<.0005$). In fact, the risk of having a gambling problem increased by a factor of 2.4 with every one-point increment on the vulnerability scale. Only gambling frequency proved a stronger predictor of problem gambling.

Discussion

Consistent with the findings from qualitative studies examining the impact of gambling advertisements, adolescents perceive the primary messages in such ads to be that gambling is fun, exciting, entertaining, and that individuals can easily achieve wealth, success and happiness. Humour, bright and flashy colours, the use of celebrities, provocative females (often on Internet gambling sites) and glamour were prominent features of commercial gambling ads.

Previous marketing and advertising research have reliably shown that repeated advertising of particular brands or types of products increases product recall and sales (Burke and Srull 1989; Noel 2006; Stout and Burda 1989). Clearly, the majority of adolescents are well aware of the advertisements promoting most forms of gambling. The research also suggests that those most often viewing such advertisements are individuals who are not only gambling but those experiencing gambling-related problems. The fact that these youth, primarily males, also report being enticed by provocative females depicted within the ads and frequently report gambling to escape and relieve boredom is of concern. While the results suggest that these ads may not necessarily precipitate participation by non-gamblers, there remains little doubt about the reach of the exposure of such ads.

The findings revealed that youth are observant of advertisements for multiple forms of gambling activities including casinos, lotteries, poker, Internet, and scratch tickets should come as no surprise. As well, adolescents are attracted to the characteristics depicted in these ads; bright, flashy colours, excitement, glamour, and the potential for financial gain. Gambling is portrayed as a lifestyle; an entertaining social activity that results in a more rewarding, enriching

and happier life. Some adolescents also expressed a dislike for gambling ads due to their ubiquitous prevalence on multiple media sources including television, radio, billboards, signage in convenience stores and on Internet pop-up messages.

Gambling advertisements employ multiple strategies that work to influence and modify the consumer's attitudes toward gambling and reinforcing the image of achieving great wealth without much work. The results of several studies suggest that ads are most effective when they capture and maintain an individual's attention (Faber et al. 2004; Steenkamp and Baumgartner 1992) and when individuals continue to think about the product after the advertisement has ended (Igartua et al. 2003; Maddock and Fulton 1996).

The impact that gambling advertisements have on youth may further be explained by the *Elaboration Likelihood Model* (ELM). This model suggests that the advertisement's impact is partially dependent upon an individual's level of involvement in the issue(s) portrayed in the ad as well as their ability to understand the message (Petty and Cacciopo 1986; Whittler and Spira 2002). As such, advertisements that contain messages that gambling can lead to a happier lifestyle would almost certainly attract adolescents, often thought to be in a transitional developmental period between childhood and adulthood. Adolescents typically searching for their identity, sexuality, as well as attempting to engage in more adult-type behaviors may make them particularly vulnerable. Adolescence is often perceived as a stressful period where escape and fantasy help relieve feelings of inadequacy. Thus, not surprisingly, participants who positively viewed gambling ads also tended to express a desire to gamble and were experiencing gambling-related problems. In contrast, individuals not attracted to gambling ads tended not to endorse current or future plans to gamble.

A significant finding was that those individuals currently experiencing a gambling problem appear to have some vulnerability to the suggestions to keep playing and that success is imminent. These youth were more likely to view gambling advertisements and report gambling after seeing an advertisement than those individuals either not gambling or who gamble occasionally. While a natural conclusion might be to assume that exposure to advertising may be causally related to problem gambling, an alternative interpretation would suggest that problems gamblers merely pay more attention to such advertisements and have an easier time recalling them especially given that preoccupation with gambling is a typical characteristic associated with problem gambling. There thus appears two possible explanations for the correlation between exposure/recall to gambling advertisements and severity of gambling problems. The first, exposure contributes to the problem. Second, problem gamblers are more attentive to the gambling advertisements, are more likely to recall such ads, and heightens the risk that the alluring messages contribute to excessive gambling.

The fact that gambling advertisements are most enticing to individuals excessively involved in gambling should come as no great surprise. Males, older youth and problem gamblers were most susceptible to the lure of advertisements. Rather than promoting the initiation of gambling for non-gamblers, these advertisements appear to serve the function of maintaining and reinforcing established gambling habits, beliefs and behaviors. Such findings reinforce the recently reported results by Binde (2009) with adult pathological gamblers in treatment.

While individuals with gambling problems were also more likely to report that advertisements advocate and promote responsible gambling, this appears to have had little impact upon their curtailing their gambling. This finding is also consistent with a recent study of perceived outcome expectancies such that problem gamblers were not only more aware of the positive aspects of gambling but also the negative consequences associated with problem gambling (Gillespie et al. 2007). Unfortunately, these youth understood the consequences and need for responsible gambling but did not view their gambling as an

immediate problem or concern but one of a long-term problem which will be resolved before the behavior becomes serious. While some of the ads incorporated a “gamble responsibly” message, simultaneously gambling was depicted as financially and emotionally rewarding. The *gamble responsibly* part of the message appears to have been lost on those individuals already gambling excessively (Derevensky et al. 2009). Should the industry be serious about this message, they will have to re-educate the public.

Gambling advertising is prolific in most jurisdictions. You can view it on television, in the corner convenience store, on billboards and on the Internet. According to *Cultivation Theory*, the amount of media consumption to which an individual is exposed determines the likelihood that they adopt dominant, hegemonic meanings and beliefs as their own (McQuail and Windahl 1993). Excessive exposure to media messages cultivates attitudes consistent with a media-conjured version of reality (i.e., everyone wins). Although this theory is typically used in relation to television viewership, it is equally useful in theorizing the ways in which the mass media collectively cultivates certain dominant meanings. The popular view of gambling as entertaining and harmless matches perfectly the rose-coloured perspective offered by its advertising.

A social learning theory perspective would suggest that the mere exposure and reinforcement of winning, happiness and excitement portrays gambling to be a normal and harmless form of entertainment. Coupled with the fact that few adolescents are concerned about their parent knowing they gamble compounds to the potential impact of existing advertisements. Such ads seem to provide a trigger and impediment for stopping gambling for those individuals with gambling problems. The notion that certain youth problem gamblers are vulnerable to gambling advertisements is consistent with the clinical accounts of therapists and treatment providers (Gupta and Derevensky 2008).

Gambling providers and regulators should heed the warnings about the impact of gambling advertisements on youth and vulnerable individuals. At the very least, the development of responsible codes of practice and guidelines should be established (Monaghan and Derevensky 2008; Monaghan et al. 2008). While many jurisdictions have endorsed such responsible codes of advertising, the enforcement of such codes is absent by regulatory boards. Ironically, in the United States, lottery corporations are exempt from the Federal Truth in Advertising statute. And, in other jurisdictions the advertising agency responsible for developing the social responsibility messages aimed at limiting excessive gambling is often the same agency given the mandate to increase revenues. The fact that we have a large number of underage youth gambling in regulated gambling venues also represents a serious concern. Gambling operators and regulators have a responsibility to ensure that underage minors are not permitted to gamble in such establishments. The ability of our adolescents to gamble in spite of regulations prohibiting them to do so, along with a general societal permissive attitude toward gambling, represents a tacit acceptance of the social desirability of gambling. Our legislators, regulators and the industry should take careful notice of these findings.

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