

special section

Responsible Gambling Strategies: Are They Effective Against Problem Gambling Risk in Older Ontarians?

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Abstract

Despite the limited amount of research on gambling in older adults (55+ years), they are often encouraged to use responsible gambling strategies to ensure that it remains a “low-risk” activity. However, the effectiveness of these strategies has not been examined in this population. The purpose of this study was threefold: to document the types of responsible gambling strategies used by older Ontario residents, to examine how these strategies relate to problem gambling risk, and to assess whether there are differences in the use of responsible gambling strategies between those who are and are not at risk of problem gambling. We examined the data of 673 older adults ($M = 68.7$, $SD = 7.6$) from three different studies that used the same measurement instruments to assess demographics, problem gambling risk, and responsible gambling strategies (Norris & Tindale, 2006; Thériault, 2015; Tindale & Norris, 2015). We failed to find any evidence that the use of responsible gambling strategies was related to the risk of problem gambling in older adults (as measured by the Problem Gambling Severity Index of the Canadian Problem Gambling Index and the Windsor Screen). The respondents who used these strategies did not have a lower problem gambling risk than did the respondents who did not use the strategies. Further, the number of strategies used did not vary between problem gambling risk categories. These results raise questions about the utility of strategies used for responsible gambling

Keywords: older adults, responsible gambling, problem gambling, Ontario

Résumé

Malgré le nombre restreint de recherches effectuées sur le jeu chez les personnes âgées de 55 ans et plus, on constate que ces personnes sont souvent invitées à recourir à des stratégies de jeu responsable pour s'assurer que cette activité demeure « à faible risque ».

L'efficacité de ces stratégies n'a cependant pas été examinée dans cette population. La raison d'être de cette étude est triple : répertorier les types de stratégies de jeu responsable utilisées par les personnes âgées en Ontario, examiner comment ces stratégies sont liées au risque de jeu compulsif, et évaluer s'il existe des différences entre les personnes à risque de jouer de manière compulsive et celles qui ne le sont pas dans l'utilisation de stratégies de jeu responsable. Au total, 673 personnes âgées (moyenne = 68,7, *ÉT* = 7,6) ont été recrutées dans trois études différentes recourant aux mêmes instruments de mesure; les mesures évaluaient les données démographiques, le risque de jeu problématique et les stratégies de jeu responsable (Norris et Tindale, 2006; Tindale et Norris, 2015; Thériault, 2015). L'étude n'a pas permis de prouver que l'utilisation de stratégies de jeu responsable était liée au risque de jeu excessif chez les personnes âgées (tel que mesuré par l'Indice canadien du jeu problématique, l'Indice de gravité du jeu problématique et le dépistage de Windsor). Les répondants qui ont utilisé ces stratégies n'affichaient pas un risque de jeu problématique inférieur à ceux qui ne les utilisaient pas. Enfin, le nombre de stratégies utilisées n'a pas varié entre les catégories de risque de jeu problématique. Ces résultats soulèvent des questions quant à l'utilité des stratégies employées pour assurer le jeu responsable.

Introduction

When we think about the stereotypical recreational activities of an older adult, we tend to visualize that person playing bingo or sitting at a slot machine. Gambling has increased in popularity as a recreational activity in the past two decades for all adults, especially older adults (Tepperman & Wanner, 2012). Older adults are, in fact, the fastest-growing age group of gamblers (Alberghetti & Collins, 2015; Canadian Partnership for Responsible Gambling, 2013).

Despite this popularity, the literature on older gamblers is limited (e.g., Lorains, Cowlshaw, & Thomas, 2011) and most of this body of work predominantly focuses on problem gambling (PG; Munro, Cox-Bishop, McVey, & Munro, 2003; Tse, Hong, Wang, & Cunningham-Williams, 2012). The rates of PG in this age group range widely, depending on the study, population, and measures used. Researchers who used what was once the industry standard, the South Oaks Gambling Screen, reported that 1.6% of older Manitobans were gambling at “problem levels” and another 1.2% at a “pathological level” (Wiebe & Cox, 2005). A similar study in Montréal, Québec, found comparable results for their sample of older adults (Philippe & Vallerand, 2007). Other studies that used the Canadian Problem Gambling Index (CPGI) reported this rate to be between 1.6% and 6.1% (Canadian Partnership for Responsible Gambling, 2013). However, when the Windsor Screen was used, an instrument designed to measure PG risk in older adults, this proportion increased to 30.8% who were at risk of PG (Langewisch, 2005). The Windsor Screen is seldom used in the PG literature; nonetheless, this leaves open the question of the true incidence of PG in older Canadians and

points to the need for more research, especially studies that take a population-level approach. Considering the increasing popularity of gambling among older adults, as well as its increasing availability and promotion, some clinicians caution about a potential increase in these PG rates among older adults (Canadian Partnership for Responsible Gambling, 2013).

PG has long been associated with a wide range of comorbid disorders for all age groups; however, these comorbidities tend to be experienced at a higher level among older adults (e.g., Hong, Sacco, & Cunningham-Williams, 2009). Lorains et al. (2011) reviewed 11 studies pertaining to the prevalence of common comorbid disorders among older gamblers. They found high prevalence rates for several conditions, such as nicotine dependence, alcohol misuse, and illicit drug abuse. Results also indicated that mood and anxiety disorders “were highly prevalent in problem and pathological gambling. Unlike the case for addictive disorders which may co-develop with problem and pathological gambling, it has been suggested that mood and anxiety disorders may often precede gambling problems” (Lorains et al., 2011, p. 495).

In one of the few studies performed in Ontario, McCready, Mann, Zhao, and Eves (2008) identified various socio-demographic health determinants and mental health problems that were associated with gambling-related problems in older adults. The authors also found that both alcohol and substance dependence were significantly associated with experiencing gambling problems. Not surprisingly, more frequent participation in gambling activities was associated with an increased risk of PG. Wiebe, Single, Falkowski-Ham, and Mun (2004) also found similar relationships between alcohol, nicotine dependence, and PG among older Ontarians. In contrast, they did not find a relationship between PG and self-reported health; however, there was some indication of greater depressive feelings among problem gamblers.

The aforementioned comorbidities might be the result of PG, but they could also be precursors of gambling problems. Understanding the factors that might increase the risk of PG among older adults is essential to understanding how to mediate these risks. In a large sample of older adults, Parke, Griffiths, Pattinson, and Keatley (2018) proposed a pathway model in which PG risk might develop because of several vulnerabilities. The model found an association between PG risk and anxiety and loneliness among older adults from Great Britain. In addition, anxiety was found to be associated with loneliness, as well as with pain and depression, illustrating that such issues, which so many older adults are faced with, could contribute to PG risk among this population and could place them at greater risk for PG.

Notably, some of these factors have also been highlighted by older adults as reasons for gambling. In a qualitative study of older frequent gamblers from Britain, the participants described the use of gambling as an escape from psychological stresses such as loneliness, issues related to retirement, and bereavement. Gambling was also highlighted as being an escape from physical pain and a way to be cognitively and socially stimulated (Pattinson & Parke, 2016). Similar themes emerged from a comparable interview-based study that focused on older women from Britain who

frequently gamble. Themes of escaping and filling voids were also highlighted by these women. The ease of overspending at a casino was also mentioned and, worryingly, that PG was not an issue for older adults because there are worse addictions (Pattinson & Parke, 2017). These findings are important when trying to understand how to reduce the risk of PG among older adults.

With an increase in the popularity of gambling, the number of people facing dangers associated with it can also increase (e.g., Johansson, Grand, Kim, Odlaug, & Götestam, 2009; Levens, Dyer, Zubrusky, Knott, & Oslin, 2005). To mitigate the potential dangers associated with problematic gambling, the gambling industry strongly focuses on encouraging people to “gamble responsibly” (Hing, Sproston, Tran, & Russel, 2017). While early responsible gambling (RG) initiatives focused on providing environments that encouraged safe consumption, more recently, the RG emphasis has changed to the behaviours of the gambler (Reith, 2007). Even PG strategies led by the gambling industry, such as self-exclusion programs, concentrate on these behaviours. Common RG behaviours are usually meant to reduce money or time spent while gambling (Lostutter, Lewis, Crounce, Neighbors, & Larimer, 2014). Examples of these behavioural strategies can include taking a limited amount of money, leaving bank and credit cards at home, not gambling alone, setting a time limit, avoiding borrowing money, and using self-control (Hing et al., 2017). In a study that examined 27 RG strategies among gamblers, S. M. Moore, Thomas, Kyrios, and Bates (2012) identified five categories of RG behaviours: cognitive approaches, direct action, social experience, avoidance, and limit setting. Items in the direct action and avoidance categories were most endorsed by those at risk for PG in comparison to items in the other three categories.

Hing et al. (2017) found that RG strategies are associated with PG risk, with those in lower risk groups most likely to use them. The study examined RG strategies and PG risk as measured by the Problem Gambling Severity Index (PGSI). These researchers also found that the most common RG strategy was the limitation of gambling expenditures. The least used RG strategies focused on limiting time while gambling. They also found that knowledge of RG strategies was high in every PG risk group, indicating that knowledge of these strategies is insufficient to ensure non-harmful gambling.

Considering the limited research on gambling among older adults (e.g., Wu & Wortman, 2009), it is no surprise that little is known about the RG strategies of this group. In a small phenomenological study of non-PG in older adults, Hagen, Nixon, and Solowoniuk (2005) reported that almost all of the participants interviewed mentioned the potential risk of gambling and that they knew someone who had let his or her gambling get out of control. The participants discussed knowledge of RG and various strategies that they could use, such as understanding that gambling is a game and limiting their gambling activities. In a similar qualitative study, Subramaniam and colleagues (2017) stated that although none of the participants explicitly used the term “responsible gambling,” they described the use of RG strategies while gambling, including limiting time and money, as well as understanding the dangers of gambling.

These two qualitative studies illustrate that most of the older non-problem gamblers interviewed understood the risks of gambling and used some RG strategies. Nevertheless, these studies do not indicate how common RG strategies are in older adults and, more important, whether they are related to PG risk, as Hing and colleagues (2017) found in adults over the age of 18. This is especially important to understand because simply knowing about RG strategies does not relate to PG risk (Hing et al., 2017). In addition, these discussed strategies do not integrate concepts that are known to relate to and possibly predict PG among older adults, such as isolation, lack of stimulation, and physical and psychological stress (e.g., Lorains et al., 2011; Parke et al., 2018).

In the research on RG strategies, there are thus few principles or strategies that are known to be truly effective in the general population (Ladouceur, Shaffer, Blaszczynski, & Shaffer, 2017). Considering this and the potential consequences of PG, it is essential to gain a better understanding of which RG strategies might be effective in an older population. This is especially important because RG has become the responsibility of the gambler, as opposed to the gambling industry (e.g., Hing et al., 2017). The purpose of this study was to document the types of RG strategies used by older Ontarians and how these strategies relate to PG risk.

Method

To meet the objectives of this study and to better understand PG risk and RG strategies in older adults, we asked three research questions: (1) What are the rates of PG risk among those in the sample? (2) What and how often are RG strategies used by older Ontarians? (3) Are RG strategies effective in this sample, and are there differences between the PG risk groups and their use of RG strategies?

Participants

Data from participants over the age of 55 years were selected from three different studies that used the same measures. These three samples were amalgamated into one group of participants for this study. The first sample was originally part of a much larger gambling study. Between 2009 and 2011, Tindale and Norris (2015) recruited 270 adults over the age of 56 who were born in Canada and whose primary language was English. Most participants in this sample were from Southwestern Ontario and all were recruited solely online. The second sample was also originally part of a larger study. Norris and Tindale (2006) recruited, over the course of 2005, a sample of older adults from Ontario who completed a hand-distributed pen-and-paper survey. This sample of 222 older adults from Northeastern Ontario was included in the present study because it was geographically and methodologically distinct from that in the first study. However, neither of these studies included older adults whose first language was French.

Gambling research has long been criticized for ignoring older adults (e.g., Lorains et al., 2011) and especially for excluding minority older adults (e.g., Ariyabuddhipongs, 2012; Munro et al., 2003). Francophones in Ontario represent 4.8% of the total population

with the largest numbers in the Eastern (15.7%) and Northeastern (23.4%) areas of the province (Statistics Canada, 2006). With over half a million people (568,340, per Statistics Canada in 2016), they represent the largest population of Francophones, one of the two official language groups of Canada outside the province of Québec. The literature shows that minority groups and linguistic minority groups have higher rates of PG than the general population does (e.g., Welte, Barnes, Wiczorek, Tidwell, & Parker, 2001). However, despite a greater risk of marginalization, exclusion, and discrimination (e.g., DeWit & Bénéteau, 1999a, 1999b; Kauppi et al., 2004; Thériault & Stones, 2009), older Francophones in Ontario did not demonstrate a higher PG risk than older English-speaking Ontarians did (Thériault, 2015).

The third sample had been recruited to construct the gambling profile of an older Francophone group. This group consisted of 181 older Francophone Ontarian adults from Northeastern Ontario. These participants filled out a survey either online or with a paper-and-pencil questionnaire. We expected that this variability in the samples would aid in forming a complete picture of RG in older Ontarians. A full breakdown of the demographic information of the 673 participants is shown in Table 1.

Some similarities and differences in demographic information between the three samples need mentioning. No significant differences were observed in gender composition or in number of children and grandchildren. There were, however, differences in income, marital status, and age of the samples. Further, these differences are complex when examined closely. The differences in income are related to geography: Those in the Southwestern Ontario sample had a higher income than did those in the Northeastern sample. This difference is in line with demographic data from Statistics Canada (2012). Similarly, we noted differences in the marital status of the participants based on the language of the group: Francophones were more likely to be married. This trend was also echoed in census data, where 10% more Francophones in Ontario were married than were their English language counterparts (Statistics Canada, 2016). Lastly, there were differences in the age distribution of the three samples. However, because age was collected as an ordinal variable in both samples from Norris and Tindale (2006; Tindale & Norris, 2015), it is difficult to determine the nature of these differences. Despite these differences between samples, they represent an accurate representation of the diversity of older adults in Ontario. Thus, the differences are consistent with those observed in census and other related data and help us to gain a better understanding of gambling within this population.

In addition to a demographic comparison, we also compared the three samples for various gambling measures. Thériault (2015) noted that there were few differences concerning PG risk and risk categories, the only significant differences being in the raw PGSI scores but not its risk categories. Moreover, except for those in the Francophone sample being most likely to bring a set amount of cash and less likely to rely on self-control, few differences emerged among the RG strategies.

Table 1
Demographic Information of the Samples.

Measures	Francophone		Southwestern Sample		Northeastern Sample		χ^2	df	p
	N	%	N	%	N	%			
Age									
55-59	21	11.6	80	29.6	35	15.8	45.24	10	.000
60-64	29	16.0	61	22.6	55	24.8			
65-69	43	23.8	44	16.3	33	14.9			
70-74	37	20.4	29	10.7	49	22.1			
Over 75	35	19.3	56	20.7	50	22.5			
Gender									
Male	59	32.6	80	29.6	88	39.6	4.87	2	.088
Female	108	59.7	178	65.9	128	57.7			
Marital status									
Married or common law	134	74.0	172	63.7	138	62.2	23.22	6	.001
Single	6	3.3	23	8.5	17	7.7			
Divorced or separated	8	4.4	75	27.7	23	10.4			
Widowed	19	10.5	0	0	43	19.4			
Income									
Less than \$29,000	26	14.4	47	17.4	56	21.2	31.24	6	.000
\$30,000-\$59,000	66	36.5	60	22.2	70	31.5			
\$60,000-\$89,000	31	17.1	67	24.8	32	16.8			
More than \$90,000	32	17.7	71	26.3	32	16.8			

Measures

To answer the research questions, we used two PG risk measures, as well as questions regarding RG strategies and demographic information.

The Windsor Screen. The Windsor Screen (Frisch, Fraser, & Govoni, 2003) is a 16-item scale developed to identify older adults who might be at risk for PG by asking binary yes-or-no questions related to gambling. Higher scores indicate greater risk. For this study, the 9-item short form of the Windsor Screen was used. This scale has been found to have good internal consistency (Cronbach's α s = .76 to .94) and convergent reliability with the PGSI (r s = .58 to .89; Frisch et al., 2003; Tindale & Norris, 20015).

The PGSI of the CPGI. The PGSI (Ferris & Wynne, 2001) is a 9-item measure of the risk of PG. It is a 4-point Likert scale-type measure that categorizes individuals into four gambling risk categories on the basis of their summary scores: non-gambler/no risk (0), low risk (1–2), moderate risk (3–7), and problem gambler (8+). The PGSI has been found to have good internal consistency (Cronbach's α = .84) and good test-retest reliability (r = .78; Ferris & Wynne, 2001).

The Guelph Family Gambling Items. The Guelph Family Gambling Items (Norris & Tindale, 2003) include a wide variety of questions about the gambling activities of participants and their family members: what games are played, how often, with whom, and the reason for gambling. For the present study, only the questions regarding RG strategies were selected. These questions included endorsing a variety of RG strategies such as setting a spending or time limit, bringing a set amount of cash, leaving bank cards at home, using self-control, and not borrowing money to gamble.

Results

Considering the exploratory nature of the goals of this study and that it is the first to examine RG in an older sample, we used univariate analyses.

In examining the first research question, we found that most participants did not demonstrate PG risk. The results of the Windsor Screen showed that 76.2% of the sample were not at risk of PG, whereas the CPGI revealed that 80.9% of participants were in the no-risk, 5.5% in the moderate-risk, and 2.1% in the high-risk categories. The mean scores of both PG measures were also low (Table 2).

The second research question was answered by the information shown in Table 3 that demonstrates the frequency of the various RG strategies used by the participants in the study. Most used several different RG strategies (M = 2.4 strategies, SD = 1.1), the most common being setting a spending limit (61.8%), followed by the use of self-control (42.3%) and bringing a set amount of cash (35.8%). The strategies least used by the participants were leaving their bank cards at home (10.3%), setting a time limit (11.0%; however, this item was included only with the Francophone sample),

Table 2
PG Risk Rates of the Samples as Measured by the PGSI and Windsor Screen.

Measure	<i>N</i>	Mean (<i>SD</i>)
PGSI	529	0.70 (2.70)
Windsor Screen	474	1.58 (1.94)
	<i>N</i>	%
PGSI		
No risk (0)	428	80.9
Some risk (1–2)	61	11.5
Moderate risk (3–7)	29	5.5
High risk (8+)	11	2.1
Windsor Screen		
No risk (0–2)	361	76.2
Risk (3–9)	113	23.8

Note. PGSI = Problem Gambling Severity Index.

Table 3
RG Strategies Used by Participants.

RG Strategies	<i>N</i>	%
Set a spending limit	416	61.8
Leave bank cards at home	69	10.3
Bring set amount of cash	241	35.8
Avoid borrowing	93	13.8
Use self-control	285	42.3
Set a time limit ^a	20	11.0 ^b

Note. RG = responsible gambling.

^aOnly collected for those in Francophone sample.

^bOf the 181 in the Francophone sample.

and avoiding borrowing money to gamble (13.8%). Few participants (8.6%) did not use any of the RG strategies listed.

Examination of the last research question showed that there were few differences between the PG risk categories and the RG strategies of the PGSI (Table 4). Only leaving one's bank card(s) at home proved to be of marginally significant difference among the four PG risk groups, $\chi^2(3) = 7.23$, $p = .07$. Those in the no-risk group were least likely to use this RG strategy. When we examined the Windsor Screen as a measure of PG risk (Table 5), the same trend appeared in which, again, leaving one's bank card(s) at home proved to be marginally significantly different, $\chi^2(1) = 3.67$, $p = .06$. This trend was also found when the extremes of the scales were compared.

An examination of possible differences between the PG risk categories and the frequency of the RG strategies also failed to show significant differences. There was

Table 4
RG Strategies by CPGI PG Risk Categories.

RG strategies	No Risk		Low Risk		Mild Risk		High Risk		CPGI Categories		
	N	%	N	%	N	%	N	%	χ^2	df	Sig.
Set a spending limit	292	98.3	46	98.0	26	96.3	6	85.7	5.60	3	.13
Leave bank cards at home	41	13.4	12	25.5	6	27.3	2	25.0	7.23	3	.07
Bring set amount of cash	173	56.5	26	55.3	12	54.5	5	62.5	.17	3	.98
Avoid borrowing	65	21.3	16	34.0	3	13.6	3	37.5	5.80	3	.12
Use self-control	202	66.0	29	61.7	14	63.6	4	50.0	1.17	3	.76
Set a time limit ^a	12	13.0	2	16.7	1	33.3	0	0	1.07	2	.59

Note. RG = responsible gambling; CPGI = Canadian Problem Gambling Index; PG = problem gambling.

^a Only collected for those in Francophone sample.

Table 5
RG Strategies by Windsor Screen PG Risk Categories.

RG strategies	No/Low Risk		Some Risk		Windsor Screen Categories		
	<i>N</i>	%	<i>N</i>	%	χ^2	<i>df</i>	Sig.
Set a spending limit	248	98.8	90	96.8	1.63	1	.20
Leave bank cards at home	34	12.9	18	21.4	3.67	1	.06
Bring set amount of cash	142	53.6	49	58.3	0.58	1	.45
Avoid borrowing	55	20.8	19	22.6	0.12	1	.73
Use self-control	182	68.7	50	59.5	2.40	1	.12
Set a time limit ^a	13	18.1	2	15.4	0.05	1	.82

Note. RG = responsible gambling; PG = problem gambling.

^aOnly collected for those in Francophone sample.

no significant correlation between the number of RG strategies used and the scores on either the PGSI ($r = .043, p = .44$) or the Windsor Screen ($r = .045, p = .44$). This was also the case for the PG risk categories from the PGSI, $F(3) = .30, p = .83$, and the Windsor Screen, $t(296) = .48, p = .62$, illustrating that not only are there no differences between PG risk categories in the RG strategies used, but there is also no difference in the number of strategies used. Again, this was also found when the extremes on both ends of the scales were compared.

Discussion

The first research question posed in this study asked about the PG rates of this sample. We found that few of the participants were at risk for PG. However, a better understanding of these results can be achieved by comparing these findings with those from other studies that examined older adults. In a large-scale study of over 25,000 Canadians, Currie, Hodgins, and Casey (2012) used the CPGI to measure PG risk. They reported that 1.4% of Canadians (over the age of 18) were at high risk of PG and 4.3% were at moderate risk. These proportions are slightly lower but similar to those found in our study. In another study of nearly 10,000 Canadians, lower rates of PG risk were found among this age group, where only 0.3% were at high PG risk and 2.2% at moderate risk (Martins, Storr, & Ghandour, 2008), possibly indicating a higher risk of PG in our group of older adults than in other samples. However, because of the variation in PG risk in the available literature (Canadian Partnership for Responsible Gambling, 2013) and the lack of a dedicated focus on older adults (e.g., Lorains et al., 2011), it is difficult to conclude that our sample of older Ontarians is at higher risk of PG.

The second research question and the principal objective of this study was to better understand the use of RG strategies by the older participants. Consistent with the literature, and not surprisingly, the majority of older adults reported using RG strategies. Although previous research has indicated that older adults discuss the use of RG strategies (Hagen et al., 2005; Subramaniam et al., 2017), none have examined

which strategies are used and at what frequency. As discussed by Hing and colleagues (2017), knowledge of RG strategies on its own is not sufficient, and thus understanding the actual strategies used by older adults is paramount.

The results of our study confirm the use of these RG strategies by most older adults. Similar to that used by other demographic groups, the most frequent RG strategy used here revolved around limiting the money spent on gambling (Hing et al., 2017). The use of limiting expenditures on gambling as an RG strategy has been found in numerous other studies (e.g., Abbott et al., 2013; Ladouceur, Blaszczynski, & Lalande, 2012). In addition, considering the RG language used by some in the gambling industry, this is the RG strategy that gamblers are often encouraged to use, for example, in the “know your limit play within it” campaign by the Ontario Lottery and Gaming Corporation (2018).

More important than knowing whether older adults use RG strategies and how many they use was finding an answer to the third research question: whether the use of these strategies relates to PG risk. Hing and colleagues (2017) reported that those in the low PG risk categories were significantly more likely to use each RG strategy measure, with the exception of leaving bank cards at home and not drinking while gambling. They also reported a higher number of RG strategies used by those in the lower PG risk groups than by those in the higher risk groups. However, we did not find these results in our study. With both PG measures, the CPGI and the Windsor Screen, there was no difference in usage in all other RG strategies between PG risk groups and there were no significant differences in the number of RG strategies used.

Paradoxically, leaving bank cards at home was the only RG strategy that was marginally significant, those in the higher PG risk groups being more likely to use this strategy. This finding is important considering the growing body of research regarding the association between the use of bank cards and increased spending. In an experimental setting, individuals were shown to be more likely to spend money by using a bank card than by using cash (Runnermark, Hedman, & Xiao, 2015) and exposure to debit and credit card logos was associated with increased spending (A. Moore & Taylor, 2011). The use of bank cards has also been associated with an increase in household spending (Mercatanti & Li, 2014).

The literature and the results of the present study are important for a better understanding of potential RG strategies among older adults. In an older study, McNeilly and Burke (2000) found that older adults sampled in an American gambling facility reported having gambled more than they intended and using their credit cards to do so. This was in comparison to older adults within the broader community, who were not at a casino. However, this study examined only a small number of older gamblers and did not study PG risk in those sampled. Nonetheless, these findings illustrate the need for a better understanding of the potential protective effects for older adults of leaving a bank card at home while visiting a gambling facility.

These findings illustrate that although older adults use RG strategies, their use was not greater among those in lower PG risk groups. It is possible that the use of RG strategies protects against PG risk: thus the lack of association between the two. Nevertheless, this association has been found in a younger population (Hing et al., 2017); it is therefore difficult to conclude from this cross-sectional investigation that RG strategies are ineffective against PG, or that they will not protect against PG in older adults. These findings do, however, cast doubt on the effectiveness of these strategies in older adults.

The use of RG strategies is taken for granted in our culture as a way to prevent PG risk and the potential consequences of gambling. This is true of the advice given to older gamblers to keep their gambling low risk (Responsible Gambling Council, 2017), despite little research having been done that supports these strategies. In a review of available peer-reviewed research, Ladouceur et al. (2017) argued that there is simply not enough research to recommend specific RG strategies to anyone. This sentiment is one that was echoed by a review done by the National Center for Responsible Gambling (Reilly, 2017). The results of our study demonstrate that more research must be done to understand RG strategies in older adults.

When trying to understand potential RG strategies for older adults, an examination of some known PG correlates among this population might be a good place to start. For example, increased social contact could reduce older adults' use of gambling to escape isolation and, similarly, could reduce their use of gambling for social and cognitive stimulation (Pattinson & Parke, 2016). As discussed, loneliness as a result of a shrinking support system has been reported to be an antecedent of PG in older adults (Govoni, Frisch, & Johnson, 2001; McNeilly & Burke, 2000). Analogous work has found that the marital status of older adults can affect PG risk, as those who are married are at lower risk for PG (Zaraneck & Chapleski, 2005). Family warmth, or the perception of family health, has also been found to buffer against PG risk in older adults, especially the warmth of the family one creates (Tindale & Norris, 2015). Tepperman and Korn (2003) argue that an effective prevention strategy should look to the family as social support. Beyond the family, in our sample, those who engaged in gambling with others were also at reduced risk for PG than were those who gambled alone. Thus, it seems that to better understand RG strategies for older adults, it is important to understand and discuss the potential role of social support.

The findings here are important, but, our study, like all research, was not without its limitations. Principally, combining samples that were recruited almost a decade apart may produce issues with the results. The aforementioned differences between the samples echo census data, but the passage of time could be responsible for gambling preferences, and the popularity and accessibility of certain gambling activities can vary over time. This is especially true in Ontario with the modernization of the Ontario Lottery and Gaming Corporation (2018). In addition, the use of univariate analyses could be a limitation in this study, as it might not control for other covariates. However, considering that the goal of the study was to simply better understand and identify the RG strategies used by older adults, we used exploratory analyses.

Assuming that all RG strategies are effective for every age demographic is inappropriate. Clearly, more work needs to be done to understand not only which RG strategies are used by older adults, but also which strategies can protect against the potential consequences of gambling.

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Submitted June 19, 2018; accepted August 29, 2018. This article was peer reviewed. All URLs were available at the time of submission.

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Competing interests: None declared (all authors).

Ethics approval: Wilfrid Laurier University Research Ethics Board approved on August 20, 2013, the research project “Gambling among older Francophones in North-Eastern Ontario” (3728).

Acknowledgements: The authors would like to thank the Gambling Research Exchange Ontario (formerly the Ontario Problem Gambling Research Centre) for funding the various aspects of this project.