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REVIEW PAPER

Motivators for Resolving or Seeking Help for Gambling Problems: A Review of the Empirical Literature

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Abstract This literature review summarizes recent empirical research on the reasons disordered gamblers try, through treatment or otherwise, to resolve or reduce their gambling problems. Relevant databases and bibliographies were searched for English-language studies, published since 1998, that asked gamblers themselves about motivators for action. Found were ten studies addressing reasons for trying to resolve or reduce gambling problems, five addressing reasons for seeking help and four addressing reasons for requesting self-exclusion from casinos. Help-seeking occurred largely in response to gambling-related harms (especially financial problems, relationship issues and negative emotions) that had already happened or that were imminent. Resolution was often motivated by the same kinds of harms but evaluation/decision-making and changes in lifestyle or environment played a more prominent role. Self-exclusion was motivated by harms, evaluation/decision-making and a wish to regain control. Awareness and educational materials could incorporate messages that might encourage heavy gamblers to make changes before harms became too great. Intervention development could also benefit from more research on the motivators leading to successful (vs. failed) resolution, as well as on the ways in which disordered gamblers are able to overcome specific barriers to seeking help or reaching resolution.

Keywords Pathological gambling · Problem gambling · Treatment · Help-seeking · Casino self-exclusion · Resolution · Motivators · Review

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Introduction

A meta-analysis of prevalence studies covering the period from 1975 through 1999 revealed that more than one out of 20 North American adults experience gambling problems during their lifetime (Shaffer and Hall 2001). Roughly similar proportions have been found in studies outside the US and Canada (Shaffer et al. 2004; Petry 2005). Gamblers encountering difficulties with their playing can be grouped into pathological gamblers (those who have the most severe problems with gambling and who meet accepted diagnostic criteria for a gambling disorder) and problem gamblers (those with subclinical levels of gambling problems) (Shaffer et al. 2004; Petry 2005). Based on the meta-analysis referred to above, 1.9% of North American adults qualified for a lifetime diagnosis of pathological gambling, while 4.2% fell into the problem gambler category (Shaffer and Hall 2001).

Overall population measures of prevalence of pathological and problem gambling mask differences in population sub-groups. Factors such as age, ethnic group affiliation, socio-economic status, gender, mental health, substance use and possibly marital status play a role in likelihood of gambling problems (Shaffer et al. 2004; Petry 2005, Chapters 4 & 5). For example, there tends to be a higher rate of gambling problems among men, adolescents and college students, non-White ethnic minorities in predominantly Caucasian countries and those of lower socio-economic status. Gambling disorders also often occur together with substance use disorders, and there is evidence for a relationship between gambling problems and some mood disorders, especially depression (Petry 2005).

Many measures exist for assessing the presence and level of gambling problems. Shaffer et al. (2004) identified over twenty-seven instruments and noted that many more were being developed. The most commonly used have been the South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987) and screens based on the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; DSM-IV; American Psychiatric Association 1994).

Pathological and problem gambling are often associated with harm, not only in the financial realm (the locus of the most common negative consequences) but also in relationships with family and friends and in the mental health and functioning of spouses and children as well as of the gamblers themselves (Whelan et al. 2007). Because of the greater prevalence of problem gamblers than of pathological gamblers, this group may actually be responsible for a greater proportion of gambling-related harm (Shaffer et al. 2004).

Effective treatment for gambling problems does exist; however, relatively few people with gambling difficulties seek treatment (Cunningham 2005; Petry 2005). Analyses of data from two large national surveys conducted in the US over the last 10 years indicated that approximately 7–10% of lifetime pathological gamblers had sought treatment or attended Gamblers Anonymous (GA) (Cunningham 2005; Slutske 2006). In one of the surveys (the Gambling Impact and Behavior Study or GIBS), no gamblers with symptoms falling below the threshold of pathological gambling reported having sought treatment. In the other survey (the National Epidemiologic Survey on Alcohol and Related Conditions or NESARC), the proportion seeking help was strongly associated with the number of lifetime pathological gambling symptoms reported, ranging from 6% of those with five symptoms to 76% of those with 10 symptoms (Slutske 2006). In Ontario, Canada, 29% of pathological gamblers and 10% of problem gamblers were found to have accessed treatment or GA (Suurvali et al. 2008). Similarly in Australia, a higher proportion of gamblers with severe problems than of those with less severe problems (23% vs. 7%) reported receiving counseling for their gambling difficulties (Productivity Commission 1999).

Formal treatment, however, is not a prerequisite for resolution, even among gamblers with severe problems. Recovery rates among gamblers tend to be considerably higher than treatment rates. Referring to data collected by Shaffer et al. (1998) on 22 North American prevalence surveys providing both lifetime and past year gambling problem rates, Hodgins et al. (1999) showed that from 32 to 46% of both pathological gamblers and problem gamblers had recovered. Slutske (2006) reported very similar recovery rates for the GIBS and NESARC (i.e., between 36 and 46% of both pathological gamblers and problem gamblers). By comparing the numbers of lifetime pathological gamblers reporting no symptoms for the past 12 months with the numbers of these gamblers who had ever sought treatment or attended GA for their gambling problems, Slutske (2006) calculated that approximately a third of the lifetime pathological gamblers in the GIBS and NESARC surveys had, by the time they responded to the surveys, recovered naturally (i.e., without formal treatment).

If examined over time, a person's gambling problems can improve, get worse or remain at much the same level, and they can recur. Based on her assessment of the GIBS and NESARC data, Slutske (2006) concluded that the trajectory of pathological gambling is best described as "variable", i.e., "chronic" in some gamblers and "episodic" in others. Some gamblers reported several episodes of pathological gambling across their lifetime, with durations lasting from one month to several decades; however, the most common pattern found in the NESARC, characterizing 61% of lifetime pathological gamblers was one episode of pathological gambling, lasting one year or less (Slutske 2006). LaPlante et al. (2008) examined individual level data (framed for past year or past 6 months) on gambling problem levels at multiple time points in five prospective studies; none of the studies included gamblers in treatment. Over the time periods of the studies (which ranged from 2 years to approximately 10 years), from 50 to 89% of pathological gamblers and 54–91% of problem gamblers improved sufficiently to be reclassified at a lower problem severity level. In all studies, these changes were found to be statistically significant. In addition, pathological gamblers and problem gamblers were equally likely to improve (LaPlante et al. 2008).

Both natural recovery and treatment, then, are important in resolution of gambling problems. However, why do some gamblers use treatment to resolve and others, even among those with severe problems, do not? Learning more about this question will help in tailoring treatment services, self-help resources and motivational and informational messages to the target the groups most likely to benefit from them.

The authors (Suurvali et al. 2009) recently undertook to review the empirical research on the reasons pathological and problem gamblers do not seek formal help. The current paper takes a similar approach in order to examine the other side of this question: what motivates gamblers to seek help for their gambling problems or, alternatively, to quit or reduce on their own.

Methods

Searches were conducted of relevant databases: Medline (1996 to January 2009, as well as in-process and other non-indexed citations), PsycINFO (1987 to January 2009), HealthStar (1966 to November 2008) and Dissertation Abstracts (1997–2009). Keywords for the search on reasons for seeking treatment or for trying to make a change in gambling behaviour were: "gambling" AND ("treatment" OR "resolution") AND ("motivators" OR "reasons"). In addition, searches were done using Google Scholar, with the words

"gambling treatment" OR "gambling resolution" AND AT LEAST ONE OF "motivators" and "reasons". Only the first 200 hits in the Google Scholar search were investigated. Some studies were also found through references in other articles and through personal communication. The literature review was restricted to papers, reports and conference materials published since 1998 and to those written in the English language.

In order for a study to be included in this review, it had to directly ask gamblers themselves why they tried (or might try) to quit or reduce gambling or why they sought (or might seek) help for gambling problems. There were no other restrictions based on size, characteristics of sample or type of methodology.

Results

Nineteen studies were found: ten asked gamblers about their reasons for resolving/trying to resolve or reduce the gambling problem, four asked specifically about reasons for requesting self-exclusion from casinos, and five focused on reasons for seeking typically formal help with gambling difficulties. These three groups of studies are summarized in Table 1.

Study Samples

Respondents in studies examining reasons for resolution, quitting or reduction were gamblers who had made or had tried to make these changes; the presence or absence of help-seeking in this process was not usually a criterion for inclusion in the study (Marotta 1999 was a notable exception). Respondent samples in some resolution/quitting/reduction studies included gamblers with treatment experience but none consisted entirely of treated gamblers. On the other hand, in studies focusing on reasons for seeking help, respondents were mostly gamblers who had sought assistance (most often formal help but in some cases informal or self-help) for their gambling difficulties. Similarly, studies examining reasons for participation in casino self-exclusion programs were conducted with gamblers who had chosen this method to try to change their gambling.

There were two instances of overlap in study samples: one of the two samples in Hodgins et al.'s (2002) resolution/quitting/reduction study was also examined in Hodgins and el-Guebaly's (2000) resolution/quitting/reduction study and the two Nower and Blaszczynski (2006, 2008) studies on self-exclusion from casinos drew upon the same database of applicants for the program.

Overview of Motivators Identified

Many of the same types of motivators (e.g., financial difficulties, relationships with others, negative emotions, evaluation and decision-making, work or legal difficulties) were identified across the studies, irrespective of the focus of the study (resolution/quitting/reduction; casino self-exclusion; or help-seeking). Table 2 presents the most commonly found categories of motivators and indicates their importance or prevalence in the studies. For each motivator category, relevant studies are grouped according to focus, with those examining resolution/quitting/reduction listed first, those examining casino self-exclusion listed second and those examining help-seeking listed third. The separate inclusion in Table 2 of open- and closed-ended results, when a study provides both of these, means that each motivator category could have a maximum of 14 possible endorsements from

Table 1 Studies of motivators for resolving or seeking help for gambling problems[a]

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Studies examining motivators/reasons for resolution/reduction of gambling problems							
Abbott et al. (1999)	$N = 45$	32 pathological/problem[c] + 13 non-problem gamblers (identified in 1991) whose gambling involvement declined between 1991 and 1998; From 1998 follow-up of gamblers responding to 1991 survey; Adults (age 18+ in 1991)	New Zealand	Population survey in 1991: Phase 1: random-digit dialing and next birthday selection of participants; telephone interviews; Phase 2: face-to-face interviews with subsample of 217 gamblers; 1998 follow-up of 143 gamblers: face-to-face interviews	1998: SOGS-R; Fisher DSM-IV Screen; self-assessment of changes in gambling involvement since 1991; open-ended questions on perceived reasons for these gambling changes (answers subsequently categorized) and on life events seen to be associated with the changes	Yes (no statistical tests) (see next column)	Reported for: (a) the 32 pathological/problem gamblers; (b) the 13 non-problem gamblers; %'s
Hodgins et al. (1999)	$N = 6$	Out of 42 "potentially recovered gamblers" (based on SOGS framed for lifetime and past year), these 6 explicitly acknowledged a past but not current gambling problem; mean lifetime SOGS for the 6 respondents was 8.1; 2 of the 6 had had treatment and 4 had recovered on their own; Adults (age 18+)	Alberta, Canada	Population survey: random-digit dialing and nearest birthday selection of participants; computer-assisted telephone interview	SOGS; closed and open-ended questions about gambling history and behaviour and about what led to recovery	No	Reported for the 6 participants; Individual case descriptions

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Marotta (1999)	$N = 58$	Pathological/problem gamblers resolved for at least 2 years: $N = 29$ (86% pathological, 14% problem) had resolved naturally; $N = 29$ (100% pathological) had resolved with treatment and/or GA; Adults (age 18+)	USA (Nevada, Oregon, CA)	Media recruitment and snowballing; telephone screening interview + face-to-face interview for those successfully passing screen	DSM-IV; SOGS; open-ended question on primary reason for improvement in problem gambling followed by classification of reasons into 19 pre-determined categories; ratings on 5-point scale (0 = "no effect at all" to 4 = "great effect") of influence of each category; structured life event inventory (27 events in 3 domains) for 1 year before change to 1 year after	Yes (see next column)	Reported for: (a) naturally resolved pathological/problem gamblers vs. pathological/problem gamblers resolved through treatment or GA; (b) open-ended and closed-ended questioning; %'s; mean ratings of level of influence of each category of motivator
Hodgins and el-Guebaly (2000)	$N = 43$	Resolved gamblers from a larger sample that included non-resolved gamblers; Almost all qualified for diagnosis of pathological gambling; 67% had had no significant gambling treatment	Alberta, Canada	Media recruitment; Face-to-face interview (82% of larger sample) or telephone interview	SOGS; SCID-IV; Open-ended question on what led to the decision to stop gambling followed by checklist of 15 possible reasons for stopping	Yes (see next column)	Reported for open-ended vs. closed-ended questioning; %'s

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Abbott (2001)	$N = 75$	Gamblers who reported having decreased their gambling in past 5 years; part of 256 gamblers completing Phase 2 of 1999 population survey; combined group of pathological/problem gamblers as well as non-problem gamblers; Adults (age 18+)	New Zealand	Population survey in 1999: Phase 1: random selection of telephone #'s and selection grid to choose respondent; telephone interviews; Phase 2: face-to-face interviews with subsample of 256 gamblers	SOGS-R; Fisher DSM-IV Screen; self-reported change in gambling involvement since 5 years ago; open-ended question on perceived reasons for these changes	No	Reported for the 75 participants; %'s
Nova Scotia Department of Health (2001)	$N = 181$	VL players: 46 non-problem past players + 37 non-problem present players + 24 problem resolved past players + 28 problem resolved present players + 46 problem unresolved players; Adults (age 19+) [*"problem player" designation is not based on a "mental disorder model" in this study and is not necessarily equivalent to "pathological gambler"*]	Nova Scotia, Canada	Randomly selected from participants in an earlier study; Telephone interview	Triangulation, modified DSM-IV and self-assessment to identify problem play; questionnaire tailored to gambler group; checklist of 6 possible reasons (including "other") for stopping/reducing VL play; open-ended probing of reasons acknowledged	Yes (see next column)	Reported for: (a) non-problem players vs. resolved problem players vs. unresolved players; (b) resolved non-players vs. resolved players; (c) open-ended vs. closed-ended questions; %'s

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Hodgins et al. (2002)	$N = 144$	Recovered former pathological/problem gamblers: (a) 43 who quit longer ago (same sample as in Hodgins and el-Guebaly 2000); (b) 101 who quit more recently; 100% and 89% respectively qualified for diagnosis of pathological gambling; 47 and 50% of the two samples had had past gambling treatment; 14 and 25% were currently receiving treatment; Adults (age 19+)	Alberta, Canada	Media recruitment; Longer term quitters: telephone screen + 1 face-to-face interview; Recent quitters: telephone screen + 4 face-to-face interviews + several telephone contacts over 12 months	SOGS; SCID-IV; open-ended question on what led participant to stop gambling followed by list of 15 reasons for resolution rated in importance on 5-point scale (0 = "not at all" to 4 = "extremely"); open-ended question on characteristics of resolution; demographic questions	Yes (see next column)	Reported for: (a) long-term quitters vs. recent quitters; (b) within each group of quitters, those who had received treatment vs. those who had not; (c) males vs. females; (d) open-ended vs. closed-ended questions; %'s
Hodgins and Peden (2005)	$N = 29$	Pathological gamblers who tried (successfully or not) to quit or cut down between Time 1 and Time 2; from larger group of 40 active pathological gamblers; none were in treatment or self-help group at Time 1; Adults (age 21+ at 2nd interview)	Alberta, Canada	Media recruitment; 2 face-to-face interviews 33 to 49 months apart	SOGS; SCID-IV; During 2nd interview: questions on help-seeking and on reasons for resolution (checklist of 15 reasons rated in importance on 5-point scale (0 = "not at all" to 4 = "extremely"); possible open-ended component in motivator questions	Yes (see next column)	Reported for: (a) those who continued to have problems at Time 2; (b) those who had quit or were gambling without problem at Time 2; %'s; case descriptions

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Nett and Schatzmann (2005)	$N = 45$	Former pathological/problem gamblers who had recovered with professional help or on their own; from larger group of 64 current or past pathological or problem gamblers (mean SOGS = 9.9); Adults (age 26+)	German-speaking part of Switzerland	Recruitment through media and treatment professional; Telephone interviews	SOGS; help-seeking history; other questions [*no details about motivator questions*]	Yes (see next column)	Reported for: auto-remitted participants vs. those recovering with professional help; No numeric information on motivators
Toneatto et al. (2008) (Study 1)	$N = 37$	Pathological gamblers who had recovered for $\geq$ 6 months: 11 with gambling-specific treatment + 26 without	Toronto area, Canada	Media recruitment; telephone screening; in-person interview	SOGS; open-ended question addressing reasons for quitting gambling at the time participant chose to do so	Yes (see next column)	Reported for: treated vs. untreated participants; %'s
Studies examining motivators for trying to resolve gambling problems by self-exclusion from casinos							
Ladouceur et al. (2000)	$N = 220$	Gamblers applying for self-exclusion from Québec casino; 95% pathological gamblers; 5% problem gamblers; Adults (age 18+)	Québec, Canada	At time of sign-up for self-exclusion, invitation to participate in study; questionnaire [*method of administration not specified*]	SOGS; questions about gambling experiences, including how they reached decision to self-exclude [*details not specified*]	No	Reported for the 220 study participants; %'s

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Nower and Blaszczynski (2006)	$N = 2670$	Gamblers applying for self-exclusion from Missouri State casinos during a 2-year period; Adults (age 21+)	Missouri, USA	Extracted from larger database maintained by Missouri Gaming Commission; applicants had completed optional questionnaire [*seems to have been paper and pencil*]	Self-assessment of problem gambling; questions on 10 possible reasons for self-exclusion; questions on use of counseling and GA; demographic questions	Yes (see next column)	Reported for: males vs. females; %'s; predictors from logistic regression
Ladouceur et al. (2007)	$N = 161$	Gamblers applying for self-exclusion from Québec casino; 88.8% pathological gamblers according to SOGS (73.1% according to DSM-IV); 6.8% at-risk gamblers; 4.3% no gambling problems; Adults (age 18+)	Québec, Canada	At time of sign-up for self-exclusion, invitation to participate in study; interview [*probably telephone*]	DSM-IV; SOGS for 6-month time frame; questions about motives for self-exclusion and reason for selecting self-exclusion over making the change on their own [*no further details about motivator questions*]	No	Reported for the 161 study participants; %'s
Nower and Blaszczynski (2008)	$N = 1601$	Gamblers applying for self-exclusion from Missouri State casinos during a 2-year period; no standardized measure of gambling severity; Adults (age 21+)	Missouri, USA	Extracted from larger database maintained by Missouri Gaming Commission; applicants had completed optional questionnaire [*seems to have been paper and pencil*]	Self-identification as problem gambler; questions on demographic characteristics, gambling behaviour and 10 main reasons for self-exclusion (coded, categorical variables)	Yes (see next column)	Reported for: (a) age groups 21 to 35, 36 to 55, and 56+; (b) men vs. women within 56+ age group; %'s; χ^2; predictors from logistic regression

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Studies examining motivators for seeking help for gambling problems							
Tremayne et al. (2001)	$N = 20$ (approximately)	Regular gamblers acknowledging gambling problem in response to SOGS question and saying they had tried to get help in past 12 months; Segment of 432 regular gamblers identified from population survey sample ($N = 5{,}445$); Adults (age 18+)	Australian Capital Territory	Population survey: random-digit dialing and last birthday method; Screener; Core survey (for all regular gamblers plus proportion of others); Survey done by telephone	SOGS (framed for past 12 months); HARM (22-item measure of serious harm from gambling); Self-reported gambling problems; Questions on help-seeking including checklist of 7 reasons (including "other") for having sought help	No	Reported for 20 (approximately) self-assessed gamblers with problems who had sought help; %'s
McMillen et al. (2004)	$N = 16$	9 gamblers with gambling problems + 7 family members of gamblers with problems; All had sought help or were currently doing so, for themselves or for another	Australian Capital Territory	Media recruitment; face-to-face in-depth semi-structured interviews	Prompter questions on help-seeking behaviours including reasons for seeking help; thematic analysis of interviews	Yes (see next column)	Reported for: (a) gamblers; (b) family members; Verbatim statements identified by gender; No numeric information on motivators

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Evans and Delfabbro (2005)	$N = 77$	Pathological gamblers: 61 who had sought formal professional gambling treatment + 16 who had tried self-help; Adults (age 18+)	Australia	Recruitment through media and from treatment agencies; Telephone interview (most) or questionnaire completed at home	SOGS; open-ended question about motivators for seeking help or trying self-help followed by 24 statements (in 7 domains) on motivators, rated on a 5-point Likert scale (0 = "not at all important" to 4 = "very important")	Yes (see next column)	Reported for: (a) all participants; (b) formal help vs. self-help; (c) open-ended vs. closed-ended questions; %'s; Mean ratings for statements and for domains
ACNielsen (2007)	$N = 10$	Regular gamblers who thought in the past 12 months that they might have a gambling problem and who sought help (formal or informal); Identified from a larger population survey sample ($N = 5{,}029$); Adults (age 18+)	New South Wales, Australia	Population survey using random-digit dialing and most recent birthday; Telephone interviews	CPGI; Questions on help-seeking and on motivators for seeking help (9 choices including "other")	No	Reported for the 10 participants; No numeric information on motivators

Table 1 continued

Study	Sample size[b]	Sample characteristics	Geographic source of sample	Methodology	Measuring instruments	Examination of between-group differences	Groups for whom motivators information was reported
Pulford et al. (2009)	$N = 229$	Gamblers: (a) 125 help-seekers (HS) + (b) 104 non-help-seekers (NHS); 88% of HS participants and 37% of NHS participants were "problem gamblers" (i.e., most severely disordered) according to the PGSI; Adults (age 20+)	New Zealand	HS: recruited from those accessing a gambling helpline service for own problem; NHS: recruited through media or face-to-face outside electronic gaming machine venues; HS: telephone or internet survey; NHS: face-to-face, telephone or internet survey	PGSI; Open-ended questions about reasons for seeking help followed by checklist of 15 possible reasons for seeking help and then followed by open-ended question on most important motivator of help-seeking; NHS participants were asked about likely motivators for "someone" with a gambling problem.	Yes (see next column)	Reported for: (a) HS vs. NHS participants; (b) Open-ended vs. closed-ended questioning; %'s

CPGI Canadian Problem Gambling Index (Ferris and Wynne 2001); *DSM-IV* Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (American Psychiatric Association 1994); *Fisher DSM-IV Screen* (Fisher 1996, cited in Abbott et al. 1999); *GA* Gamblers Anonymous; *PGSI* Problem Gambling Severity Index (Ferris and Wynne 2001; Wynne 2003); *SCID-IV* Structured Clinical Interview for the DSM-IV (Spitzer et al. 1990, cited in Hodgins and el-Guebaly 2000); *SOGS* South Oaks Gambling Screen (Lesieur and Blume 1987); *SOGS-R* South Oaks Gambling Screen-Revised (Abbott and Volberg 1991; 1992; 1996, cited in Abbott et al. 1999); *VL* Video Lottery

[a] Many of the studies in this table also looked at other topics in addition to motivators for resolution/quitting/reduction, requesting self-exclusion from casinos or seeking gambling help; only the information relevant to motivators is included in the table

[b] This column provides the number of respondents who were asked about motivators for resolution/quitting/reduction, requesting self-exclusion from casinos or seeking gambling help. Sometimes this is a small segment of a much larger number of participants in the overall study

[c] The studies vary somewhat in the designation of levels of gambling problem severity; where possible in this table, "pathological gambling" is used to indicate gambling that qualifies for a DSM-IV diagnosis of pathological gambling, and "problem gambling" is used to describe a sub-clinical level of gambling problems. In terms of the SOGS, a score of 5 or more is typically used to define pathological gambling and a score of 3 or 4 is usually used to define problem gambling. (See Petry 2005 for more information about nomenclature associated with gambling problem severity.) The relevant samples in some studies consist of both pathological and problem gamblers

Table 2 Summary of more commonly reported motivators for making a change in gambling behaviour[a]

Category of motivator	Focus of study[a]	Frequency with which motivator category is reported and/or its reported importance in various studies[b,c]		
		Very common	Moderately common	Rare
Financial difficulties	Resolution/quitting/reduction	Abbott et al. (1999) Hodgins et al. (1999) Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (closed-ended) Hodgins et al. (2002)[d] (open-ended) Hodgins et al. (2002)[d] (closed-ended) Hodgins and Peden (2005)	Hodgins and el-Guebaly (2000) (open-ended) Abbott (2001) Nova Scotia Department of Health (2001) (open-ended) Toneatto et al. (2008)	Marotta (1999) (open-ended)
	Casino self-exclusion	*Ladouceur et al.* (2007)	–	–
	Help-seeking	***McMillen et al.*** (2004) ***Evans and Delfabbro*** (2005) ***(closed-ended)*** ***Pulford et al.*** (2009) ***(open-ended)***	***Tremayne et al.*** (2001) ***Evans and Delfabbro*** (2005) ***(open-ended)*** ***ACNielsen*** (2007) ***Pulford et al.*** (2009) ***(closed-ended)***	
Relationships with/influence of others[e]	Resolution/quitting/reduction	Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (closed-ended) Hodgins et al. (2002)[d] (closed-ended) Hodgins and Peden (2005)	Hodgins et al. (1999) Hodgins and el-Guebaly (2000) (open-ended) Hodgins et al. (2002)[d] (open-ended) Toneatto et al. (2008)	Abbott et al. (1999) Marotta (1999) (open-ended) Nett and Schatzmann (2005)
	Casino self-exclusion	–	*Nower and Blaszczynski* (2006) *Nower and Blaszczynski* (2008)	*Ladouceur et al.* (2000)
	Help-seeking	***Tremayne et al.*** (2001) ***Pulford et al.*** (2009) ***(closed-ended)***	***Evans and Delfabbro*** (2005) ***(closed-ended)*** ***ACNielsen*** (2007)	***McMillen et al.*** (2004) ***Evans and Delfabbro*** (2005) ***(open-ended)*** ***Pulford et al.*** (2009) ***(open-ended)***

Table 2 continued

Category of motivator	Focus of study[a]	Frequency with which motivator category is reported and/or its reported importance in various studies[b,c]		
		Very common	Moderately common	Rare
Negative emotions[f]	Resolution/quitting/reduction	Marotta (1999) (open-ended) Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (closed-ended) Hodgins et al. (2002)[d] (closed-ended) Hodgins and Peden (2005)	Hodgins et al. (1999) Hodgins and el-Guebaly (2000) (open-ended) Hodgins et al. (2002)[d] (open-ended) Toneatto et al. (2008)	Nova Scotia Department of Health (2001) (open-ended)
	Casino self-exclusion	–	*Nower and Blaszczynski* (2006) *Nower and Blaszczynski* (2008)	–
	Help-seeking	***Evans and Delfabbro*** (2005) ***(closed-ended)*** ***Pulford et al.*** (2009) ***(closed-ended)***	***Tremayne et al.*** (2001) ***ACNielsen*** (2007)	***Evans and Delfabbro*** (2005) ***(open-ended)*** ***Pulford et al.*** (2009) ***(open-ended)***
Evaluation and decision-making[g]	Resolution/quitting/reduction	Marotta 1999 (closed-ended) Hodgins et al. (1999) Nova Scotia Department of Health (2001) (closed-ended) Hodgins et al. (2002)[d] (closed-ended) Hodgins and Peden (2005)	Marotta (1999) (open-ended) Hodgins and el-Guebaly (2000) (closed-ended) Nova Scotia Department of Health (2001) (open-ended) Hodgins et al. (2002)[d] (open-ended)	Hodgins and el-Guebaly (2000) (open-ended) Abbott (2001)
	Casino self-exclusion	*Ladouceur et al.* (2000) *Ladouceur et al.* (2007)	–	–
	Help-seeking	***Pulford et al.*** (2009) ***(closed-ended)***	–	***Pulford et al.*** (2009) ***(open-ended)***
Changes in environment/lifestyle[h]	Resolution/quitting/reduction	Marotta (1999) (closed-ended) Hodgins et al. (1999) Hodgins et al. (2002)[d] (closed-ended)	Abbott et al. (1999) Nova Scotia Department of Health (2001) (closed-ended) Nova Scotia Department of Health 2001 (open-ended)	Marotta (1999) (open-ended) Hodgins and el-Guebaly (2000) (open-ended) Hodgins and el-Guebaly (2000) (closed-ended) Abbott (2001) Hodgins et al. (2002)[d] (open-ended) Hodgins and Peden (2005) Nett and Schatzmann (2005) Toneatto et al. (2008)

Table 2 continued

Category of motivator	Focus of study[a]	Frequency with which motivator category is reported and/or its reported importance in various studies[b,c]		
		Very common	Moderately common	Rare
	Casino self-exclusion	–	–	–
	Help-seeking	–	–	–
Work or legal difficulties	Resolution/quitting/ reduction	–	Hodgins and el-Guebaly (2000) (closed-ended) Hodgins et al. (2002)[d] (closed-ended)	Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (open-ended) Hodgins et al. (2002)[d] (open-ended)
	Casino self-exclusion	–	–	*Nower and Blaszczynski* (2006)
	Help-seeking	***Pulford et al.*** (2009) ***(closed-ended)***	–	***Tremayne et al.*** (2001) ***Evans and Delfabbro*** (2005) ***(open-ended)*** ***Evans and Delfabbro*** (2005) ***(closed-ended)*** ***Pulford et al.*** (2009) ***(open-ended)***
Physical health	Resolution/quitting/ reduction	Hodgins et al. (2002)[d] (closed-ended)	Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (closed-ended)	Marotta (1999) (open-ended) Abbott et al. (1999)
	Casino self-exclusion	–	–	–
	Help-seeking	***Evans and Delfabbro*** (2005) ***(closed-ended)*** ***Pulford et al.*** (2009) ***(closed-ended)***	–	***Pulford et al.*** (2009) ***(open-ended)***
A traumatic/ humiliating/ personal event/ specific event	Resolution/quitting/ reduction	Hodgins et al. (2002)[d] (closed-ended)	Marotta (1999) (closed-ended) Hodgins and el-Guebaly (2000) (closed-ended) Hodgins and Peden (2005)	Marotta (1999) (open-ended) Hodgins et al. (1999) Nova Scotia Department of Health (2001) (closed-ended)
	Casino self-exclusion	*Ladouceur et al.* (2007)	–	–
	Help-seeking	–	***McMillen et al.*** (2004)	–

Table 2 continued

Category of motivator	Focus of study[a]	Frequency with which motivator category is reported and/or its reported importance in various studies[b,c]		
		Very common	Moderately common	Rare
Conflict with self-image or goals, sense of personal failure	Resolution/quitting/ reduction	Toneatto et al. (2008)	Hodgins and el-Guebaly (2000) (open-ended) Hodgins et al. (2002)[d] (open-ended)	Nova Scotia Department of Health (2001) (open-ended)
	Casino self-exclusion	–	–	–
	Help-seeking	–	***McMillen et al.*** (2004)	***Pulford et al.*** (2009) ***(open-ended)***
Loss of control; desire to regain control	Resolution/quitting/ reduction	–	–	–
	Casino self-exclusion	*Nower and Blaszczynski* (2006)	*Nower and Blaszczynski* (2008)	
	Help-seeking	–	–	***Evans and Delfabbro*** (2005) ***(open-ended)*** ***Pulford et al.*** (2009) ***(open-ended)***
Recognition that it is not possible to win at gambling	Resolution/quitting/ reduction	–	Nova Scotia Department of Health (2001) (open-ended) Toneatto et al. (2008)	Hodgins and el-Guebaly (2000) (open-ended) Hodgins et al. (2002)[d] (open-ended)
	Casino self-exclusion	–	–	–
	Help-seeking	–	–	–
Loss of interest in gambling	Resolution/quitting/ reduction	–	Abbott et al. (1999)	Abbott (2001) Nova Scotia Department of Health (2001) (open-ended) Hodgins and Peden (2005)

Table 2 continued

Category of motivator	Focus of study[a]	Frequency with which motivator category is reported and/or its reported importance in various studies[b,c]		
		Very common	Moderately common	Rare
	Casino self-exclusion	–	–	–
	Help-seeking	–	–	–

Coding criteria for classifying motivators in studies according to frequency/importance: For studies reporting %'s of respondents indicating various motivators: 50% or more = "very common"; 20–49% = "moderately common"; <20% = "rare". For studies reporting mean importance, etc. of motivators: Marotta (1999) (closed-ended) and Evans and Delfabbro (2005) (closed-ended) (range 0–4): mean of 2–4 = "very common"; 0.8–1.9 = "moderately common"; <0.8 = "rare" (*note*: only motivator statements with means of 2+ are reported in the Evans and Delfabbro 2005 article; otherwise, domain means are reported). For studies providing no numeric data: "main" or "most often mentioned" motivator = "very common"; "a main" motivator or, a motivator cited by "many" = "moderately common"; "mentioned" = "rare"

[a] As in Table 1, studies are organized into three groups depending on their focus. For each category of motivator, studies examining reasons for quitting, reducing or resolving gambling problems are presented first and in regular type. Studies examining reasons for trying to resolve gambling problems by requesting self-exclusion from casinos are presented second and in italics. Studies examining reasons for seeking help for gambling problems are presented third and in bold italics. The "Focus of study" column also indicates the group to which the studies belong

[b] For each motivator category, studies in which that motivator category is found are assigned to a frequency/importance level using the coding criteria provided at the beginning of these notes. This assignment is based on the strongest relevant study result. Whenever possible, data for individual motivator statements rather than for broader groupings of statements are used

[c] If a study reported open-ended and closed-ended results separately, these are given separately in the table. This is relevant for six studies: Marotta 1999; Hodgins and el-Guebaly 2000; Nova Scotia Department of Health 2001; Hodgins et al. 2002; Evans and Delfabbro 2005; Pulford et al. 2009. There are a total of 25 possible citations of studies per motivator type: 14 possible citations for studies asking about resolution/quitting/reduction, 4 possible citations for studies focusing on self-exclusion from casinos and 7 possible citations for studies asking about help-seeking

[d] One of the respondent samples included in Hodgins et al. (2002) is the same as the sample in Hodgins and el-Guebaly (2000). The assignment of the Hodgins et al. (2002) study to frequency/importance categories for the various motivators is based on the results for the sample that is not used in Hodgins and el-Guebaly 2000. (Typically, the proportions of respondents reporting motivators were higher in the new sample than in the Hodgins and el-Guebaly 2000 sample)

[e] "Relationships with/influence of others" includes marital and other relationship difficulties, pressure or encouragement from others, confrontation, and influence of family and children

[f] "Negative emotions" includes depression, shame, anxiety, mental health concerns, the feeling of having reached "the end of one's rope", the sense of having "hit rock bottom", and suicidality

[g] "Evaluation and decision-making" includes fear of future consequences, desire to prevent gambling from becoming a more serious problem in the future, evaluation of the pros and cons of gambling, making a conscious decision to change and acknowledging that the impetus for change came from oneself

[h] "Changes in environment/lifestyle" include changes in another addictive behaviour and reduced opportunities to gamble because of changes in gambling venues or in one's own circumstances, including having less money

resolution/quitting/reduction studies, 4 possible endorsements from casino self-exclusion studies and 7 possible endorsements from help-seeking studies.

Most studies provided information on percentages of participants endorsing particular motivators; mean ratings of motivator statements and reports of motivators without supporting numeric information were also found. Criteria were established to define "very common", "moderately common" and "rare" reports of motivator categories within studies reporting results in the different ways. These criteria were adopted from the similar classification done in our companion review of barriers to seeking gambling treatment (Suurvali et al. 2009) and are outlined in the notes following Table 2.

Two resolution/quitting/reduction studies (Hodgins and el-Guebaly 2000; Hodgins et al. 2002) and two help-seeking studies (Evans and Delfabbro 2005; Pulford et al. 2009) assessed the numbers of motivators identified by gamblers. Mean numbers of motivators or motivator domains (in Evans and Delfabbro 2005) ranged from 2.4 to 10.6, with no apparent difference based on focus of study.

Motivators Identified in Response to Open-Ended Versus Closed-Ended Questioning

Questions about motivators for resolution/quitting/reduction or seeking help for gambling problems were presented to study participants in various ways: as a checklist of possible responses (usually including an "other" alternative); as open-ended questions; or as a combination of open-ended and closed-ended questions, with the latter sometimes requiring rating on a Likert scale. Descriptions of the casino self-exclusion studies were not always clear about the construction and administration of motivators questions.

Considering both studies focusing on resolution/quitting/reduction and studies focusing on help-seeking, most motivators cited by participants answering open-ended questions also showed up as items listed in closed-ended questions; however, there were a few that did not make the transition. In particular, conflict with self-image or goals/sense of personal failure, and recognition that it is not possible to win at gambling were mentioned by respondents to open-ended questions in several studies but these motivators were not included in any closed-ended lists of possible motivators.

Closed-ended questioning techniques usually produced higher rates of endorsement of motivators than did open-ended questions. For example, two groups of resolved gamblers who were asked both open-ended and closed-ended questions about their reasons for resolution/quitting (Hodgins and el-Guebaly 2000; Hodgins et al. 2002) reported an average of 2.7 and 2.4 reasons in response to the open-ended question and 6.4 and 8.0 reasons in response to the closed-ended questions.

Although several studies used both open-ended and closed-ended questioning, the proportions endorsing specific motivators generated by the two types of questioning could not always be directly compared. For example, in the Nova Scotia Department of Health (2001) study, the checklist was presented first and open-ended questioning was used for probing the answers given; in the study report the data provided for open-ended responses were only for motivators not captured in the checklist responses. Pulford et al. (2009) started with the open-ended question and then proceeded to go through their checklist only with regard to items that the respondent had not already volunteered; in their study report, they provided data for open-ended responses, closed-ended responses, and the two combined. They also asked an open-ended question (but not a corresponding closed-ended question) about the most important motivator. Similarly, Marotta (1999) used the two types of questioning to examine two different aspects of the motivator experience: he elicited motivators with open-ended questioning and had respondents rate their impact with a closed-ended approach.

In those studies in which comparison was possible (Hodgins and el-Guebaly 2000; Hodgins et al. 2002; Evans and Delfabbro 2005), both questioning approaches supported financial issues, negative emotions/mental health concerns, and relationships with others as key reasons for trying to resolve the gambling problem or get help.

Motivators for Resolution/Quitting/Reduction Versus Motivators for Seeking Help Versus Motivators for Casino Self-Exclusion

As noted earlier, ten studies asked gamblers why they had quit or reduced their gambling, resolved their gambling difficulties, or tried to make these kinds of changes. Four studies asked gamblers requesting casino self-exclusion why they had chosen this step. Five studies asked gamblers about their reasons for seeking help ("help" was defined variously as professional gambling treatment; a gambling helpline service; formal and informal assistance; and self-help; and in one study (McMillen et al. 2004) it was extended to include assistance sought for a close other).

Among gamblers asked about reasons for resolution/quitting/reduction, the motivator category of changes in environment or lifestyle received the highest total number of endorsements (14 out of a possible 14). Three of these endorsements (21%) came from studies in which this motivator category was found to be "very common"; the rest came from studies in which the motivator category emerged as "moderately common" or "rare". Financial difficulties, evaluation of pros and cons/making a conscious decision to change, relationships with others, and negative emotions received 12, 11, 11 and 10 endorsements, respectively; the corresponding proportions of endorsements in which the motivator category was found to be "very common" were 58, 45, 36 and 50%. The only motivator category not receiving any endorsements from a resolution/quitting/reduction study was loss of control/desire to regain control.

Among gamblers asked about reasons for help-seeking, the most frequently endorsed motivator categories were financial difficulties (7 out of 7 possible endorsements, 43% finding the motivator category "very common"), relationships (also 7 endorsements, 29% "very common"), negative emotions (6 endorsements, 33% "very common") and work or legal difficulties (5 endorsements, 20% "very common"). There were no endorsements among help-seeking studies of changes in environment/lifestyle, recognition that it is not possible to win at gambling and loss of interest in gambling.

A maximum of four endorsements were possible from studies focusing on self-exclusion. Relationships received 3 endorsements (none were "very common"). The only motivator categories qualifying as "very common" in any self-exclusion study were evaluation of pros and cons/making a conscious decision to change, financial difficulties, a specific event and loss of control/desire to regain control. There were no endorsements among self-exclusion studies of changes in environment/lifestyle, physical health, conflict with goals or self-image, recognition that it is not possible to win at gambling, and loss of interest in gambling.

Motivators Among Help-Seekers Versus Non-Help-Seekers

A number of the resolution/quitting/reduction studies compared reasons for the change among gamblers who had sought or received formal treatment with reasons among those who had not.

In Marotta's (1999) study, a significantly higher proportion of gamblers who resolved with treatment and/or Gamblers Anonymous (GA) than of those who resolved naturally

(55% vs. 24%, $P < 0.05$) acknowledged negative emotions (specifically, hitting rock bottom) as their primary reason for making the change. The reverse was true of conducting a pros and cons evaluation of gambling: none of the gamblers using help but 34% of those resolving naturally reported this as their main motivator ($P < 0.01$). Marotta (1999) also found that gamblers resolving with help gave significantly higher mean influence ratings than did naturally resolved gamblers to hitting rock bottom (3.66 vs. 2.55, $P < 0.01$) and to financial problems (3.31 vs. 2.34, $P < 0.05$). On the other hand, naturally resolving gamblers reported significantly more influence from a major change in lifestyle (2.17 vs. 1.24, $P < 0.05$).

Hodgins et al. (2002) discovered that among pathological/problem gamblers who had quit recently, those who had received treatment were significantly more likely than those not receiving treatment to report (in response to closed-ended questioning) work, physical health and hitting rock bottom as reasons for quitting. Treated recent quitters also endorsed significantly more reasons for quitting than did untreated recent quitters (means of 8.9 reasons vs. 7.0 reasons, $P < 0.0001$ for checklist items; almost significant difference at $P < 0.06$ for open-ended items). Nett and Schatzmann (2005) found that compared with gamblers who had recovered on their own, pathological/problem gamblers recovering with professional assistance were less likely to attribute their change to social pressure and more likely to cite reduced opportunities for gambling. Although they found no significant differences in reasons for quitting among recovered gamblers who had had gambling-specific treatment and those who had not, Toneatto et al. (2008) noted that approximately a quarter of the untreated gamblers but none of the treated ones cited recognition of the impossibility of winning at gambling and awareness of other important responsibilities as reasons.

Among studies specifically asking about motivators for seeking help, two included comparisons with gamblers not seeking or using professional help. Evans and Delfabbro (2005) compared two groups of gamblers who had sought help from different sources: one, from professionals and the other (a much smaller group), from self-help strategies. They found no significant differences in reasons for help-seeking. Pulford et al. (2009) compared gamblers currently accessing a gambling helpline service with gamblers not presently seeking help. The former were asked about their own reasons for trying to get help while the latter were asked about reasons that might motivate "people" to look for help for gambling difficulties. Non-help-seekers suggested significantly more motivators for help-seeking than did help-seekers (means of 10.6 reasons vs. 6.8 reasons, $P < 0.01$). They were also significantly more likely than help-seekers to identify eleven out of 15 specific motivators, including work problems and the feeling of not being able to go on.

None of the studies focusing on self-exclusion from casinos included comparisons of motivators among gamblers seeking formal help and those not seeking such help.

Gambling Problem Level/Status and Motivators for Change

Among studies focusing on resolution/quitting/reduction were found comparisons of pathological gamblers versus problem gamblers; gamblers who had had problems with their playing versus gamblers who had never had problems; pathological/problem gamblers who made a successful change from Time 1 to Time 2 versus those who continued to have difficulties despite efforts to quit or reduce; and pathological/problem gamblers who recovered recently versus those whose recovery occurred further in the past.

Although they did not state whether or not differences were statistically significant, Abbott et al. (1999) observed that pathological gamblers were more likely than problem

gamblers to report financial issues (68% vs. 23%) as a reason for reducing their involvement with gambling over a 7 year period. Pathological gamblers also were somewhat more likely than problem gamblers to attribute the reduction to increased awareness and maturity (32% vs. 15%), a motivator not identified at all by non-problem gamblers. Pathological and problem gamblers but not non-problem gamblers also mentioned a change in priorities (11% and 23% vs. 0%). Non-problem gamblers, on the other hand, were somewhat more likely than pathological/problem gamblers to report a loss of interest in gambling (31% vs. 13%) and living in a rural area/going out less frequently (23% vs. 13%).

Resolved problem VL players were significantly more likely than unresolved problem players or non-problem players (83% vs. 35% vs. 45%, $P < 0.05$, closed-ended questioning) to have made a conscious decision to reduce or stop VL playing (Nova Scotia Department of Health 2001). Hodgins and Peden (2005) did not provide percentages of resolved gamblers endorsing various motivators for change, but they did observe that the triggers described by this group were similar to the ones described by those whose efforts to make a change had not succeeded.

Former pathological/problem gamblers who quit some time ago were significantly more likely than recent quitters to attribute their resolution to social support (14% vs. 0%, $P < 0.0001$, open-ended questioning) or to an unexplainable reason (9% vs. 0%, $P < 0.004$, open-ended questioning), and significantly less likely to credit a major lifestyle change (14% vs. 56%, $P < 0.0001$, closed-ended questioning) (Hodgins et al. 2002). On the other hand, the two groups of quitters reported mostly the same kinds of motivators for change.

Differences in gambling problem level or status as these related to motivators were not addressed in any of the help-seeking or casino self-exclusion studies.

Discussion

Similarities and Differences in the Motivators Reported in the Three Groups of Studies

This literature review presents recent empirical studies examining what motivates pathological/problem gamblers to try to make a change in their gambling behaviour. The studies fall into three groups, depending on whether gamblers are asked about motivators for resolution/quitting/reduction (ten studies), help/treatment-seeking (five studies), or casino self-exclusion (four studies). One could conceptualize resolution/quitting/reduction as an overall goal with regard to changing gambling behaviour, and gambling-specific help-seeking and enrollment in casino self-exclusion programs as two ways in which gamblers might try to achieve that goal. One could then suggest that all three groups of studies are essentially addressing the same underlying question: from the gamblers' own perspective, what happened to incite them to take action about their gambling? Whether the gamblers were asked about reasons for resolution/quitting/reduction, help-seeking or casino self-exclusion, they were likely to identify financial difficulties, relationship issues, and negative emotions as important motivators. But there were also differences among the three types of study.

Gamblers who were asked why they had sought help focused largely on the harmful consequences they had experienced, or felt on the verge of experiencing, because of their gambling. Financial and relationship problems led the list of harms, followed by negative emotions (including hitting rock bottom), work/legal difficulties and physical health

concerns. Not identified at all as reasons for help-seeking were changes in environment/lifestyle, recognition that it is not possible to win at gambling and loss of interest in gambling.

Gamblers asked about reasons for resolution/quitting/reduction, on the other hand, were very likely to cite changes in environment/lifestyle and evaluation of pros and cons of gambling/making a decision, as well as the usual relationships with/influence of others, financial issues and negative emotions. They were also more likely than gamblers asked about help-seeking to attribute their behaviour change to a traumatic or humiliating event. Recognition that it is not possible to win at gambling, loss of interest in gambling, conflict with self-image or goals, physical health and work or legal difficulties were also mentioned in some studies.

Casino self-excluders seemed somewhat more similar to gamblers asked about help-seeking than to those asked about resolution/quitting/reduction: they endorsed the common harm-related motivators (relationships, negative emotions and financial problems) and the desire to regain control over their gambling but did not identify changes in environment or lifestyle, recognition that it is not possible to win at gambling, or loss of interest in gambling. However, they did endorse evaluation of the pros and cons of gambling/making a decision about gambling. Self-exclusion could be considered a form of help-seeking, since the gambler is approaching an external source for assistance in grappling with the problem. Self-excluders in the Nower and Blaszczynski (2006, 2008) studies frequently said they took action because they recognized that they needed help and most self-excluders in Ladouceur et al. (2007) explained they had chosen self-exclusion over quitting/reducing on their own because they felt they could not make the change by themselves.

Within-Study Comparisons of Treatment-Assisted Change and Change Without Treatment

The differences in motivator patterns found in studies asking about help-seeking (and possibly casino self-exclusion) and those found in studies asking about resolution/quitting/reduction may lie in differences between gamblers who make the change with gambling-specific assistance and those who resolve naturally, with no formal help. Unfortunately, studies asking about resolution/quitting/reduction were not always restricted to gamblers who had never received formal assistance. Even in studies accepting only gamblers whose most recent resolution had been achieved without such help, controls for past treatment experiences were often inadequate. Nonetheless, to varying degrees, large portions of the gamblers in studies on resolution/quitting/reduction were people who had resolved naturally.

Some resolution/quitting/reduction studies specifically tried to compare the triggers for change reported by gamblers with and without gambling-specific help. A number of their findings supported the types of differences found overall between studies asking about reasons for help-seeking and studies asking about reasons for resolution/quitting/reduction. In particular, hitting rock bottom was more strongly endorsed by gamblers resolving with help than by those resolving without (Marotta 1999; Hodgins et al. 2002; less clearly in Toneatto et al. 2008). Work and physical health problems were also associated with resolving with help in one study (Hodgins et al. 2002), while the evaluation of the pros and cons of gambling was associated with natural resolution in another study (Marotta 1999). However, not all studies comparing motivations for resolution/quitting/reduction among help-seekers and non-help-seekers were in agreement and even where trends were

consistent, statistical significance was typically not achieved. Small sample sizes (a limitation of many of the studies included in this review), variations in how "help" or "treatment" was defined and the previously-mentioned issue about prior treatment experiences weaken the conclusions that can be drawn across these comparative studies.

Among help-seeking studies, there were also two in which the motivations of gamblers seeking formal help were compared with those of other gamblers (Evans and Delfabbro 2005; Pulford et al. 2009). Here a difficulty was presented by the necessary variations in how the motivator question was presented to the samples: gamblers who had sought treatment could be asked about their reasons for this action but those who had not sought treatment had to be asked something else. Thus, in Evans and Delfabbro (2005) the comparison group (gamblers who had relied on self-help) were asked about their reasons for using self-help, while in Pulford et al. (2009), the non-help-seekers (active gamblers with or without gambling problems) were asked to offer hypothetical reasons for help-seeking among "people" with gambling problems. This meant that there was a confounding between gambler characteristics and motivator question asked, limiting the utility of the comparisons in contributing to the understanding of possible differences in motivators among gamblers using formal help and other gamblers. Aside from the complications posed by the comparisons, the two studies remain useful sources of information on help-seeking motivators among help-seekers.

Gambling Problem Severity

Help-seekers in the help-seeking studies (and to some degree, help-seekers examined in resolution/quitting/reduction studies) gravitated largely towards harm-related reasons for making a change in their gambling behaviour. This focus on gambling-related harms is suggestive of a more severe gambling problem associated with serious and perhaps multiple negative impact(s) and possible distress. As noted earlier, population survey studies have linked higher problem severity with greater likelihood of treatment use. In addition, among resolved gamblers (only some of whom had treatment experience) in two of the resolution/quitting/reduction studies, those with greater problem severity were more likely to have received treatment (Hodgins and el-Guebaly 2000; Toneatto et al. 2008).

The overall results of resolution/quitting/reduction studies, with their strong contingent of non-help-seekers, stressed the importance (comparable to the importance of harm-related motivators) of evolutionary processes such as changes in lifestyle or environment and decision-making processes such as evaluation of the pros and cons of gambling. These results are intuitively consistent with a less severe gambling problem at least among a substantial portion of those changing without formal help. As gamblers with less serious problems are likely to have encountered fewer harmful consequences and symptoms of gambling, they may find it easier, both psychologically and practically, to step back from their gambling and think through the relative advantages and disadvantages of continuing their current gambling practices. They may also find it easier to give up or reduce their gambling in response to changes in their environment (such as moving to a new location where access to gambling venues is more difficult) and lifestyle.

There was only one resolution/quitting/reduction study in which disordered gamblers at different levels of problem severity were compared as to their motivators for change (Abbott et al. 1999): if anything, pathological gamblers were even more likely than problem gamblers to identify changes in environment/lifestyle, as well as maturation and loss of interest in gambling. But no significant differences between the two groups were reported, and sample size was small. Comparisons with non-problem gamblers (Abbott

et al. 1999; Nova Scotia Department of Health 2001) also supported the equal or greater presence of environmental/lifestyle changes and decision-making as motivators among pathological/problem gamblers. Non-problem gamblers, on the other hand, were relatively likely to attribute reduced gambling to loss of interest/cessation of involvement (Abbott et al. 1999). For gamblers without problems, especially if they approach gambling as more of a casual activity, thoughts of change may occur infrequently and without insistence; actual change may just seem to happen and afterwards, the gambler may have little recollection of its components and triggers.

More of a challenge to the hypothesis of less problem severity among participants in the resolution/quitting/reduction studies was the fact that these people were equally likely as participants in help-seeking studies to have met criteria for classification as pathological gamblers. However, despite the apparent similarity in overall problem severity between participants in the two groups of studies, there could have been differences. Most studies relied on the SOGS, often together with the DSM-IV, to assess problem severity and to determine which gamblers qualified to participate in the studies. Nonetheless, some studies used other measures, including self-assessment, and their participants could have had a higher or lower average problem severity. On the other hand, the use of less common tools occurred in all three groups of studies and was often accompanied by information on how these measures compared with the more typical SOGS and DSM-IV.

Differences in problem severity among studies, even those using the same measures, could also have been obscured by the fact that problem severity categories cover a range of scores in a measure. The pathological gamblers in one study could have clustered at the high end of the range of qualifying scores while those in another could have been at the low end. Differences in mean scores, where these were given, support this occurrence, but there is insufficient evidence to support a pattern according to focus of study.

There are further issues with the SOGS, the DSM-IV and other measures of problem severity; these are typically discussed by the authors of the studies using them (a useful summary can also be found in Petry 2005). One concern has to do with the inability of lifetime versions of these measures to distinguish between symptoms that have occurred separately at different times and those that were associated with one period in time. The shortcomings of these measures may have contributed to a difference among the three groups of studies in terms of problem severity that is not captured by reporting the proportions of study samples qualifying as pathological versus problem gamblers.

As an aside, the resolution/quitting/reduction studies seem to have had no particular difficulty recruiting naturally resolved gamblers at a high level of problem severity. As noted in the Introduction, natural resolution seems as likely to occur among pathological gamblers as among problem gamblers, even though treatment usage is associated with greater problem severity. Although this possible inconsistency is not a focus of the current review, it is worth inserting a suggestion here for further research to clarify the relationship between these two types of findings.

Other Possibly Relevant Factors Influencing Motivators Identified

The severity of gambling problems comprises only one aspect of disordered gambling. There are many other factors (e.g., demographic ones such as gender, age, ethno-cultural background, income, place of residence; health-related ones such as substance abuse, psychiatric conditions, treatment experiences; gambling history ones such as age at which gambling was initiated, previous episodes of gambling problems and resolution; and gambling behaviour ones such as preferred type of game, type of game presenting the most

difficulty, reasons for gambling) (see Petry 2005 for a brief overview of many of these), which could be relevant in the genesis, manifestation and impact of gambling problems, in the decision to resolve/quit/reduce gambling, and in the choice of method to accomplish this objective. Many of the motivator studies did provide some demographic and gambling history/behaviour information about their participants; there was no indication, though, of patterns according to type of study. With the exception of two casino self-exclusion studies that looked at gender and age (women were more likely than men to be motivated by recognition of the need for help; older gamblers were more likely than younger ones to be trying to prevent suicide; Nower and Blaszczynski 2006, 2008), there was also no effort to link any of these variables with reasons for action. It should be noted, however, that Marotta (1999) found a preference for video poker over other games to be the best predictor of resolving with treatment as opposed to resolving naturally. Further research comparing subgroups of gamblers as to their motivations for resolution and for help-seeking is warranted.

It is possible too that the differences in motivator endorsements between resolution/quitting/reduction studies and help-seeking studies stem partly from the influence of formal sources of help on the way in which gamblers conceptualize their gambling problem and what triggered the need to take action. A gambler who has received counseling or who has attended GA meetings is likely to have internalized some of the language and insights to which he/she was exposed. This would apply to gamblers with treatment experience in the resolution/quitting/reduction studies as well as to those in the help-seeking studies. An emphasis on gambling-related harms seems consistent with themes one would expect to encounter in counseling sessions and GA meetings. This could be verified by treatment professionals and organizers/attendees of GA meetings. If treatment services and GA do have a strong impact on how disordered gamblers accessing help think of and remember what led up to their action, the value of hearing about precursors to resolution/quitting/reducing from gamblers with no treatment history at all is enhanced.

Gambling is imbedded in a social and cultural context, as well as in a psychological one. Gambling means different things to people, and likewise, giving up gambling has different implications. Gambling can have important social and symbolic significance in a culture; when the cultural context is disrupted (for example, as a result of immigration), familiar gambling norms are also lost and disordered gambling can occur (e.g., Raylu and Oei 2004; Scull and Woolcock 2005; Clarke et al. 2007). Similarly, gamblers can become part of social groups built around a gambling activity (such as betting on horse races). Membership in the gambling group can come to largely define the gambler's social world. Appropriate and skilful functioning according to gambling group norms and the development of intricate strategies to maintain gambling participation while averting serious problems can be sources of satisfaction and pride. The social support provided by the gambling group can help to cushion group members from the potentially severe negative psychological and financial outcomes of regular gambling (Rosecrance 1986a, b, 1988). As Rosecrance (1985) says, though, "any individual who gambles can develop syndromes of problem gambling" and difficulties do occur. In the horse-racing world, it can be a seemingly inexplicable turn of events resulting in a big financial loss that so disorients the gambler they abandon all their normal gambling approaches and sink into a frenzy of uncontrolled gambling. If they cannot pull themselves out of this state and regain their belief that with rational approaches to betting they can manage their gambling and their losses, they may reach a crisis that will eventually demand more drastic action (Rosecrance 1986a). What that action will be (e.g., attempted resolution by oneself, seeking

professional help, or something else) may be influenced considerably by what the gambler considers to be acceptable according to the gambling group norms.

Some Hypothetical Paths to Gambling Change

So, how *do* gamblers come to the point that they quit or reduce their gambling, with or without various types of help? The findings from the motivator studies in general suggest some possible paths. For example, although many regular and long-term heavy gamblers are likely to be familiar, at least in theory, with the risks of gambling, some gamblers may become increasingly involved in gambling without recognizing the negative consequences. (This may be especially true of those who are new to regular gambling, perhaps because of a lifestyle change that provides them with more time and opportunity to gamble (e.g., McMillen et al. 2004; McKay 2005; case studies in Petry 2005) or an environmental change that legitimizes an activity that used to be, to varying degrees, proscribed (Rosecrance 1985). As the negative consequences become more severe or more prevalent, as others begin to notice them and to express concern, awareness and distress are likely to increase. The gambler may then begin to experience more serious motivation to change. Some people experiencing gambling-related harms are able, by themselves or perhaps with the support of a friend or family member, to go through a process of assessing their lives, including the role of gambling, and to make a decision to quit or reduce, which they then implement. Others go through this process but realize that they need assistance (treatment, self-help, support from a casino self-exclusion program) in actually changing, or in maintaining the change. Still others cannot get beyond their distress, requiring skilled help to recognize the problem and to learn what they can do about it.

The realization that external help is desirable or necessary does not necessarily lead to seeking that help. For many disordered gamblers, even if they have reached the point of recognizing and acknowledging that they have a gambling problem, there are internal and external obstacles to seeking help (e.g., stigma/shame/embarrassment; a sense that they should be able to manage on their own; lack of knowledge about treatment options or about what treatment entails; concerns about the value or quality of treatment; practical issues with finding time or money to attend treatment; see Suurvali et al. 2009 for a review of studies on barriers to seeking gambling treatment). These gamblers need to first overcome whatever barriers they perceive to be standing in their way and then they can proceed to connect with helping services. Motivators for help-seeking, as examined in the studies included in this review, provide an insight into what helps gamblers in difficulty overcome their reluctance to get assistance.

Alternatively, for other gamblers, change may occur in a less conscious or planned manner. Other developments in the gamblers' lives may make gambling more difficult or less interesting/rewarding and they may gradually (or swiftly) abandon the habit. For example, they may get married, start a family, become more involved with their religion, quit drinking, take up a new hobby or move to a location that provides less access to their preferred gaming activity (e.g., see Marotta 1999; Nova Scotia Department of Health 2001 for examples). Thoughts about the pros and cons of gambling may have been percolating in the minds of some of these gamblers for a long time, but they may not consider themselves to have actually made a conscious decision to stop or reduce; they may feel that it simply happened. Others may consciously take the opportunity presented by a personal or environmental change to also make a change in gambling behaviour. The ability of some gamblers to give up or markedly reduce gambling so readily suggests that perhaps these gamblers are not very entrenched in a gambling way of life, even if they meet criteria for

disordered gambling. However, it is also plausible that some inveterate gamblers suddenly experience a turn-around in response to some personally very significant internal or external event. Future research could examine how the role gambling plays in gamblers' lives (e.g., Does it largely define their identity and social network? Does it provide a much-needed escape from difficulties? Is it mostly a recreational activity?) impacts the way in which change in gambling behaviour is made.

The results of the help-seeking studies suggest that gamblers who cannot resolve their gambling problems on their own may need to reach a certain threshold of problem severity and/or impact. For example, mounting financial difficulties coupled with hardships at work or with significant others (McMillen et al. 2004 reported that the impact of financial problems was usually experienced through its impact on important relationships); the feeling of having lost control of one's life and/or of having "hit rock bottom"; an event that is perceived as "the last straw" may incite the disordered gambler to seek treatment, despite barriers. As Evans and Delfabbro (2005, p. 150) concluded in their study of both barriers and motivators, "treatment agencies are not considered points of intervention, but merely last resorts when all other possibilities had been exhausted."

A similar phenomenon perhaps operates among a portion of the gamblers participating in studies asking about motivators for resolution/quitting/reduction. Even if these gamblers are able to make their change without formal help, they may wait until the harms resulting from their gambling become so great (in number and/or in severity) they can no longer tolerate them. Certainly harm-related reasons (including emotional distress) were among the major ones for quitting or reducing gambling in the studies in this review. More research is needed to explore the extent to which gamblers who resolve naturally reach a self-defined crisis point (which may be analogous to "hitting rock bottom"—another question to consider) before taking action, and to compare this with treatment-seeking gamblers. Adding a qualitative component to the research would aid in looking for differences between the two groups of gamblers in how they describe their crisis points.

Evaluation of the pros and cons of gambling and making a rational decision about gambling behaviour can sometimes be a response to an emergency perpetrated by mounting gambling-related consequences, and in other cases, a step taken to forestall such an crisis. Evidence for the latter is provided by the emergence, especially in response to open-ended questioning, of fear of future consequences as a reason for resolution (Hodgins and el-Guebaly 2000; Nova Scotia Department of Health 2001; Hodgins et al. 2002) and of the desire to prevent the gambling problem from becoming more serious as a reason for help-seeking (Pulford et al. 2009). These are proactive reasons for taking action, and they suggest that some gamblers are able to see and understand where their gambling is leading and to initiate change before they are actually in crisis. Even more proactive may be reasons such as conflict with self-image/goals (Hodgins and el-Guebaly 2000; Nova Scotia Department of Health 2001; Hodgins et al. 2002; Toneatto et al. 2008), desire for a healthier lifestyle (Pulford et al. 2009), and desire to improve one's financial situation (Pulford et al. 2009). Such reasons imply, not only a preventive stance but also one that promotes well-being and improved functioning.

Limitations and Strengths of Motivator Studies

Certain limitations, some of which have already been mentioned, were common in the studies in this review: small samples, self-selection of study participants, a reliance on retrospective data, issues with measures of problem gambling, variations in how criteria for

resolution and help-seeking were defined, inadequate controls for previous treatment experience, and missing information in the published materials available on the studies.

All studies involved, by definition, self-reported information. Although data from self-report are limited to that which study participants are willing and able to share with researchers, it is important that pathological/problem gamblers themselves have the opportunity to describe, if possible in their own words, their gambling resolution experiences. The resolution/quitting/reduction and help-seeking studies in this review employed a good mix of open-ended and closed-ended questioning techniques, and some studies used both methods, comparing the results they obtained with each. Most types of motivators were identified through both forms of questioning; this is not surprising, since closed-ended lists are typically informed by earlier open-ended work, by the same or other researchers. However, a few motivators emerged only in response to open-ended questioning. Closed-ended questions tended to elicit more motivators than open-ended ones; again, this is not surprising, as prompts remind respondents of motivators they may otherwise have forgotten.

Processing open-ended responses can be more labour-intensive than processing checklist responses. Little information is provided in most of the relevant motivator studies about how verbatim responses were recorded. Verbatim responses were typically subjected to content analysis or to thematic analysis, usually involving two or more coders in order to check inter-rater reliability. Reporting was generally done in terms of the coding categories that were created as the analyses proceeded, although sometimes preexisting ones were used. Some studies inserted verbatim material and case summaries into their reports (e.g., Hodgins et al. 1999; Nova Scotia Department of Health 2001; McMillen et al. 2004). Open-ended questioning is better at capturing the reasons for resolution or help-seeking that come first to mind and that may thus be most salient for study respondents (the question of most important motivator was specifically asked, in an open-ended manner, by Pulford et al. 2009). Perhaps even more important, it can draw attention to nuances and detail that can lead to a deeper understanding of how, why and when motivators may work.

Suggestions for Further Research and Development

Some aspects of the issue of motivators for change among gamblers would benefit from further research. The examination of reasons for resolution/quitting/reduction among disordered gamblers using specialized help versus those among disordered gamblers managing on their own should be conducted with samples of adequate size, precise definitions of "help" and "resolution", consistent time frames, controls for prior treatment experience, use of "prior to past year clustered" pathological gambling diagnosis rather than standard lifetime diagnosis (see Slutske 2006), and attempts to deal with other shortcomings typically associated with problem severity measures. A direct comparison between motivators for resolution/quitting/reduction and motivators for seeking help for the purpose of resolution/quitting/reduction among the same sample of gamblers who had sought help might shed light on whether these questions themselves elicit different reactions. As mentioned earlier, there is also a place for more in-depth open-ended examination of gamblers' experiences as they approach the moment of initiating a change. A first step in this endeavour might be a review of already existing case studies in a range of disciplines and a content analysis aimed at extracting information on why and how gamblers take action with regard to their gambling problems.

In addition, studies exploring motivators for help-seeking among pathological/problem gamblers should be considered in the context of studies examining the obstacles reported by pathological/problem gamblers to such help-seeking (see Suurvali et al. 2009 for a

literature review of barriers studies). Despite the fact that all five of the studies looking at motivators for help-seeking included in the current review also explored barriers to help-seeking, direct links between barriers and motivators were inadequately pursued. Even in those studies in which the barriers questions and motivators questions were presented to the same groups of gamblers (three of the five help-seeking studies), respondents were not asked, with regard to particular types of barriers, how they managed to get beyond them in order to actually go for help. It was usually not clearly specified in the study reports which of the questions, barriers or motivators, were asked first. Although help-seekers talking about motivators first could provide very useful information about the obstacles they struggled with before and after taking action, they might be less informative about how their reasons for action actually addressed or surmounted the obstacles that had stopped them up until that time. It would be preferable to begin with questions on why the gambler had not sought help before now, and then to ask why or how he/she had been able to overcome these barriers. It would be even better to ask gamblers (in open-ended interviews) how they dealt with each barrier they mentioned. McMillen et al. (2004) came the closest to doing this but unfortunately the sample of gamblers they interviewed was tiny. Knowledge about how gamblers overcome specific types of barriers before seeking professional assistance can inform the development of strategies to encourage and facilitate that process.

Another interesting question is whether gamblers who successfully resolve cite different triggers to resolution than do gamblers who fail to resolve. Only one of the two motivator studies exploring this topic reported a significant finding: successful resolution was associated with having made a conscious decision to stop or reduce gambling (Nova Scotia Department of Health 2001). More research is needed on this question, and especially on the role and meaning of the "conscious decision" in successful versus unsuccessful resolution attempts.

More research is also needed on the role of sociodemographic characteristics (gender, age, ethnicity, cultural affiliation) and of gaming practices (in particular, preference for skill-based versus chance-based gambling activities) in reasons for overcoming gambling problems and/or seeking help. Combined with information about barriers, knowledge about triggers to action among subgroups of gamblers should provide a clearer picture of how these groups handle their gambling when it begins to become problematic. This, in turn, may help in the identification and timing of innovative interventions (awareness messages, educational strategies, promotion of alternative kinds of assistance) so as to increase their impact with harder-to-reach groups of pathological/problem gamblers.

A goal for planners of interventions is to reach more gamblers at an earlier stage of their gambling career, before they have encountered numerous negative consequences of their gambling and before they have reached a crisis. Awareness and educational messages could feature, in addition to information meant to support and assist gamblers in crisis, positive statements about the benefits of reduced gambling involvement targeting heavier gamblers who have not yet experienced or acknowledged serious harms from their gambling. Inclusion of a preventive message is also a good idea, alerting gamblers to signs that their gambling might be becoming excessive or problematic and providing several clear, simple alternative suggestions (including sources of help) as to what they can do to nip the problem in the bud.

Not all disordered gamblers need to receive formal treatment in order to overcome their gambling problem. However, many of those who may be able to resolve on their own still need information and support, delivered in accessible and nonthreatening ways, to encourage them to take action and subsequently, to help them maintain the change

(Hodgins et al. in press). The Internet in particular holds promise as a vehicle for providing this type of help and thus for reaching more pathological/problem gamblers before they and others around them have incurred too much harm. Increased in-depth knowledge about the process of natural resolution among gamblers, including the triggers for resolution, may inspire other ideas for encouragement and support for those disordered gamblers who prefer to make their changes on their own.

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