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# Quitting again: Motivations and strategies for terminating gambling relapses

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## Abstract

This study provides a descriptive exploration of the reason(s) why individuals who experienced a gambling relapse terminated the relapse episode and how they did so. Thirty-eight males and 22 females were administered the Relapse Experience Interview (Marlatt & Gordon, 1989). Participants (N = 60) cited a mean of 1.5 reasons for terminating relapse, with monetary factors, affective factors, reappraisal and external constraints emerging as central factors in relapse

termination. Participants reported using a mean of 1.7 strategies for stopping a gambling episode. The strategies used were identified as either cognitive or behavioural and were classified according to the processes of change model (Prochaska, DiClemente & Norcross, 1992). Stimulus control, self-liberation, counterconditioning and helping relationships were the main strategies used to terminate gambling relapse. Participants showed a preference for using either cognitive or behavioural strategies rather than both.

## Introduction

A significant majority of pathological gamblers relapse at least once while attempting to quit gambling. In a sample of naturally recovering gamblers, Hodgins and el-Guebaly (2002) found 92% of those who were followed relapsed at least once during a 12-month follow-up period. Walker (1993) found that approximately 71% of treated gamblers relapsed within one year of stopping their gambling. Moreover, only 15% of treated gamblers were abstinent two years after treatment. Blaszczynski, McConaghy and Frankova (1991) indicated that post treatment, 16% of gamblers were completely abstinent, with 33% engaging in a minor instance of gambling (e.g. buying a raffle ticket). With poor outcome findings such as these, it has been noted that the area of relapse and relapse termination merits more attention (Hodgins, el-Guebaly & Armstrong, 2001).

Part of the difficulty in assessing treatment effectiveness stems from different definitions of what constitutes a lapse or relapse. Lapses can be conceptualized as "a discrete event that disrupts the overall programme of habit change at least temporarily" (Marlatt & Gordon, 1989, p. 279) that "may or may not lead to an outcome (relapse)" (Brownell, Marlatt, Lichtenstein & Wilson, 1986, p. 765). Relapses can be broadly defined as "an episode or period of excessive gambling accompanied by a subjective sense of loss of control" (Blaszczynski et al., 1991, p. 1486).

For the most part, relapse tends to result in uncontrolled gaming behaviour that brings with it many deleterious consequences, which affect functioning to a much greater extent than a lapse. Blaszczynski et al. (1991) state that "complete abstinence as a criterion for successful treatment may be too stringent in that it fails to acknowledge the possibility of continued abstinence following brief episodes of relapse" (p. 1486). Whether practitioners agree with this or not, discovering the reasons why and ways in which individuals terminate relapse becomes pivotal to reducing negative consequences, limiting the time that it takes to stop relapses, and increasing awareness of the learning opportunities the relapse may present. Additionally, knowledge of relapse cessation may help to develop a more comprehensive treatment model that can utilize this knowledge to

further the goals of controlled gambling or abstinence.

## Reasons for terminating relapse

If clinicians and researchers have a thorough understanding of the motivating factors that prompt individuals to terminate their relapses, more effective models of intervention may be developed. To date, four studies have been conducted that focused on the termination of alcohol use relapses. Three of these studies had small, unrepresentative samples that were drawn from populations exposed to a specific type of treatment (thereby hindering the generalizability of their findings). Across these studies, a variety of reasons for terminating relapse were revealed. Participants cited reasons related to self-control and anticipation of negative consequences (Maisto, O'Farrell, Connors, McKay & Pelcovits, 1988); anticipation of emotional and physical consequences of drinking, treatment entry, just deciding to stop, and interventions by others (Maisto, McKay & O'Farrell, 1995); reduced incentive, adverse consequences (i.e. guilt, dislike of the experience and feeling intoxicated) and other reasons (i.e. environmental limits and nonspecific reasons, such as “just stopped”) (O'Malley, Jaffer, Rode & Rounsaville, 1996).

A final study (Hodgins, Ungar, el-Guebaly & Armstrong, 1997) used a naturalistic sample to examine the reasons and strategies involved in relapse termination. Individuals’ reasons ranged from immediate drinking-focused reasons (i.e. no more motivation to drink) to consideration of future consequences, social influence and interpersonal considerations and goal incompatibility. Approximately 50% of the reasons these individuals cited for stopping their relapses were categorized as intrinsic.

The current study provides a descriptive exploration of the reason(s) individuals experiencing a relapse terminated their gambling. It is hoped that identification of the key reasons for terminating relapse can eventually be utilized to treat problem gamblers (i.e. to prevent lapses from becoming full blown relapses and/or to terminate relapses). The current study used content analysis to create a new categorization scheme to classify reasons for terminating gambling relapse.

## Strategies for terminating relapse

Prochaska et al.'s (1992) transtheoretical model can be used to conceptualize processes of change (strategies) used to end relapse (see Table 1).

The frequency that the 10 processes are used is proposed to vary, depending on the stage of change an individual is in. According to this model, the techniques most often used in the *action* stage are self-liberation (choosing and committing to act, or belief in the ability to change), reinforcement management (rewarding

oneself or being rewarded by others for making changes), helping relationships (being open and trusting about problems with someone who cares), counterconditioning (substituting alternatives for problem behaviours) and stimulus control (avoiding or countering stimuli that elicit problem behaviours). These same techniques are said to be utilized in the *maintenance* stage; however, at this stage, the use of counterconditioning and stimulus control may be more prevalent.

Hodgins et al. (1997) explored the processes used to terminate alcoholic relapse. Supporting Prochaska et al.'s (1992) model, the processes of change most frequently used to terminate relapse were self-liberation, helping relationships, counterconditioning and stimulus control. Contrary to the predictions of the processes of change model, reinforcement management was not frequently endorsed as a means to terminate alcohol relapse.

The current study examined the types of processes used by gamblers in the action and maintenance stages to terminate relapse and how frequently these processes were used . The strategies used to terminate relapse were categorized according to the 10 processes of change proposed by Prochaska et al. (1992) and were also labeled as cognitive or behavioural (Annis, Schober & Kelly, 1996).

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## Research methods

### Participants

Participants (N=101) were recruited from April 1998 to November 1999, through word of mouth (family members or friends) and media announcements (e.g. press releases, paid advertisements in newspapers, television and radio) in Calgary, Alberta, Canada. Flyers were also posted in the community and at local treatment centers. Eligible participants were those with a South Oak Gambling Screen (SOGS) (Lesieur & Blume, 1987) score greater than four, accompanied by some gambling in the preceding four weeks. Further inclusion criteria included agreement to participate in a comprehensive personal interview, three follow-up interviews at three, six and 12 months after the initial assessment, and willingness to be contacted once every seven days for three months, if randomly assigned to the weekly contact group. Finally, eligible participants had to be willing to provide the names of three collaterals to confirm gambling histories. As this study is part of a larger investigation, readers are referred to Hodgins et al. (2001) for a more comprehensive description of methods.

The present investigation used data from 60 relapsed participants. Of the remaining 41 participants, six remained abstinent and 35 were excluded from the analysis because their data was incomplete (i.e. the interview questions were not transcribed, questions were not asked, etc.).

Data from 38 males and 22 females were analyzed. The mean age of the participants was 39 years (SD = 9, range = 19–59). Fifty-five per cent were employed full-time, 15% worked part-time and 18% were unemployed. Postsecondary education had been obtained by 72% of participants (range = 0.5 years to 7 years). At the time of the study, 35% had never been married, 28% were divorced and 20% were married. The mean number of children was one, with 52% of the participants having no children. Overall, these figures are similar to those found in treatment-seeking samples.

The mean SOGS score for the participants was 12.3 (SD = 3.4) and the DSM IV criteria for pathological gambling were met by 87% of the participants. The most problematic gambling involvement was with lottery type games (88%) and with video lottery terminals (87%). Seventy per cent of the individuals had experienced thoughts of killing themselves. Suicide attempts had been made by 28% of the sample. Seven per cent of these attempts were related to problems with gambling. Past or current mood disorders were diagnosed in 63% of the participants. Additionally, 77% of the participants received a DSM diagnosis related to alcohol use problems or dependence, with 8% having a current diagnosis. Cannabis was being used by 3% of the participants. Significant gender differences were not found for any of the abovementioned findings.

### Measures

Data obtained from the Relapse Experience Interview (REI) (Marlatt & Gordon, 1989; Hodgins et al., 2001) was used in this study. This semi-structured interview was modified by Hodgins et al. (2001) so that it could be used to obtain a description of how individuals terminated their gambling (as opposed to their drinking). Open-ended questions and probes were used in this interview to obtain a description of the emotional, cognitive, behavioural and situational factors that were associated with relapse onset. In this study, transcribed answers to the two interview questions, “What was the main reason(s) for stopping (getting control)?” and “How did you stop your gambling?” were examined. In addition to the REI, eight instruments were used in the study conducted by Hodgins et al. (2001). Descriptive data was obtained from these instruments; the reader is referred to Hodgins et al. (2001) for an overview of the instrumentation.

### Procedure

Eligible volunteers underwent an initial face-to-face assessment to obtain information regarding demographics, gambling history and related problems, mood, substance use and dependence, smoking history, gambling activities and frequency, gambling goals and confidence, and reasons for changing. The administration, recording and transcription of the REIs were of particular relevance to this study.

At the initial assessment interview, the REI was administered for the most recent relapse (defined as any gambling after a period of two weeks of abstinence). In the face-to-face follow-up interviews at three, six and 12 months, a timeline follow-back procedure (Sobell & Sobell, 1992; Hodgins & Makarchuk, 2002) was used. The REI was given for each relapse that had occurred after the last interview contact. The current study examined only one REI per person; the REI for the most recent relapse, to minimize retrospective bias.

The participants' answers to the REI questions were examined and categories were determined by the researcher through a process of content analysis (Denzin & Lincoln, 1994; Taylor & Bogdan, 1998). A second rater was used to determine the inter-rater reliability of the newly developed categorization model. Any remaining disagreements were resolved with a third rater.

The strategies that individuals used to terminate their relapses were categorized according to the Prochaska et al. (1992) processes of change model. Participants' strategies for terminating gambling relapse were categorized according to the 10 methods of coping proposed to facilitate change. When content analysis revealed factors that were not accounted for, modifications were made and the coping strategy categories were expanded. Finally, strategies were categorized as being cognitive or behavioural in nature (Annis et al., 1996). Strategies that could not be categorized were classified as being unclear or not applicable. The researcher determined categorical membership and a second rater was used to determine the inter-rater reliability of the classifications. A third rater was consulted to resolve any disagreements.

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# Results

### Reasons for terminating relapse

A total of 59 participants (37 males and 22 females) cited at least one reason for terminating their relapses. The remaining participant was not asked the question. Ninety reasons were given, with each participant providing a mean of 1.5 reasons (mode = 1, range = 1–5, SD = 0.9). Significant differences were not found between the mean number of reasons reported by men and women.

Content analysis resulted in 11 main categories for the participants' self-reported reasons for terminating relapse. Inter-rater reliability showed 93% agreement overall. Cohen's kappa was calculated (Bordens & Abbott, 1996) to account for chance agreements (k = 0.91). Kappa scores from 0.7 to 1.0 are deemed to be indicators of excellent reliability (Cicchetti, 1994).

The frequency with which each of the categories was endorsed is displayed in Table 2. These percentages do not represent the portion of people who chose

each category; rather, they represent the comparative frequency with which the reasons in each category were mentioned. Some individuals gave more than one reason within the same category.

As shown in Table 2, the most frequently cited reason for terminating relapse pertained to monetary factors (27%). The second most frequently cited reason related to affective factors (19%), while the third and fourth largest reasons were associated with reappraisal (14%) and external constraints (12%), respectively. Reasons that were "unknown" — related to physical factors, gambling goal attainment, unspecified obligations, recommitment to goal, absence of desire and avoidance — were cited relatively infrequently.

**Strategies for terminating relapse**

A total of 42 participants (26 males and 16 females) cited 73 strategies used to terminate relapse. The remaining 18 participants were not asked the question, or cited strategies that were categorized as reasons. Each participant provided a mean of 1.7 strategies (mode = 1, range = 1–4, SD = 0.67). Differences in the number of strategies reported by men and women were not significant.

The processes of change model (Prochaska et al., 1992) was slightly modified and expanded to categorize respondents' strategies. This modification included elaboration and further description of the categories. In addition, an eleventh category, Unclear/Other, was added to account for the people whose strategies were unclear, or who stated that they did not actively engage in any processes in order to terminate their relapses. Inter-rater agreement for the 11 categories was 90%, showing excellent reliability (k = 0.94).

The frequency with which each of the 11 strategy groupings was mentioned is displayed in Table 3. Again, these numbers do not represent the percentage of participants who chose each category. Rather, they represent the comparative frequency with which the strategies in each category were mentioned. This allowed one person to list multiple strategies that fall within the same category.

Stimulus control was the most frequently used strategy to terminate relapse (30%). Techniques such as self-liberation and counterconditioning were used equally; 20% each. Helping relationships were used 12% of the time while, unclear/other strategies, self re-evaluation, consciousness raising, dramatic relief and reinforcement management were used relatively infrequently. Strategies of environmental re-evaluation and social liberation were not mentioned by any respondents.

Participants' strategies were categorized as being cognitive, behavioural, unclear or neither (not applicable). Inter-rater agreement for the four categories was 98%

(k = 0.89). Of the 73 strategies cited, 62% were behavioural, 33% were cognitive, 3% were unclear and 3% were neither. Forty-eight per cent of the participants used at least one cognitive strategy, and 48% of the participants used at least one behavioural strategy. Twenty-six per cent of participants used at least one cognitive and at least one behavioural strategy. As shown in Table 4, men and women were equally likely to use cognitive strategies ($\chi^2$ (2, N = 73) = 1.1, p = 0.3), although there was a trend toward women being more likely than men to use behavioural strategies ($\chi^2$ (2, N = 73) = 3.3, p = 0.07). Table 4 shows the breakdown of cognitive and behavioural strategies.

## Discussion

The purpose of this study was to examine the reasons and strategies that individuals used to terminate gambling relapse, an area that has been relatively neglected in past research.

The relapse rates in this study were high. Of the larger sample (N = 101) from which these participants were taken, 94% relapsed one or more times. These findings and others (e.g. Walker, 1993) emphasize that relapse is a significant problem among individuals with gambling problems.

There are a number of limitations to the current study. Participants could have listed multiple reasons and/or strategies for terminating their relapses and one person could have been represented within the same category multiple times. It was deemed important to include multiple reasons and strategies to allow for in-depth examination of the multifaceted nature of relapse termination. However, allowing for multiple entries by the same person and/or in the same categories complicates statistical analyses; chi square could not be conducted as the data violated a number of basic assumptions of the test (i.e. independence of ratings and cell sizes greater than 5). Thus, the sparseness of quantitative analyses is reflective of an absence of viable statistical methods to analyze the data emerging from this study.

Other difficulties stem, in part, from interviewer error in the administration of the REI. Interviewers were directed to probe extensively and ask the questions for both the day the individual stopped gambling as well as in a more general way to tap into why they did not go back the next day. However, some interviewers used minimal probing and asked the questions, “What were the main reason(s) for stopping (getting control)?” and “How did you stop your gambling?” in a manner which focused on terminating gambling on the day in question. As a result, there may be a disproportionate representation of “immediate gambling-focused” reasons and strategies for terminating relapse.

Another limitation concerns retrospective bias. Hodgins, el-Guebaly and Armstrong (1995) note that retrospective self-reports can be influenced by personal bias and recall difficulties. Given this, concurrent data collection of relapse episodes as they occur may yield different findings. The results of this study are still valuable, but should be tempered with the knowledge that all data was obtained retrospectively.

Finally, for the sake of parsimony, some smaller categories were subsumed under larger ones. This may overlook subtle nuances in the data.

**Motivations for terminating relapse**

Individuals' self-reported reasons for terminating gambling relapse were analyzed and a reliable categorization scheme was created. There were 11 main categories and a series of subcategories in the model (see Table 2).

Roughly one-quarter of the reasons cited for terminating relapse pertained to monetary factors. Participants cited reasons ranging from not being able to borrow any more money, losing all of his or her money, or the unwillingness to pawn possessions to obtain more money. Here, it is clear that reasons and strategies may overlap considerably. People in this category stopped gambling because they ran out of money in the gambling situation, or were lacking funds in general. This may lend support to the utility of getting individuals with gambling problems to engage in some form of stimulus control in order to limit their access to money (i.e. dispose of debit cards and credit cards, etc.) Alternately, reasons related to money may be stated frequently because as external reasons, perhaps they are the most obvious. Other subtle factors that influence relapse termination may be more difficult to describe verbally. Knowing subsequent relapse rates of individuals who cite monetary factors as being central to terminating relapse would provide a useful starting point for future work in this area.

Affective factors also played a key role in terminating relapse, comprising approximately 20% of the reasons. Blunted affect (e.g. no "high" from gambling, boredom), dislike of the feeling of losing, and feelings of guilt, self-hatred, regret, shame, sadness, frustration, etc., are affective factors that prompted relapse termination. Research suggests behavioural change may be more likely to be initiated and maintained if it stems from internal factors (Curry, Wagner & Grothaus, 1990). It is possible that heightening individuals' emotional awareness may help to alter the course of relapse episodes. For instance, if gamblers are halting their relapses because their emotions become uncomfortable, then it may be valuable if they could be taught to be more cognizant of their emotional reactions to gambling, paying particular attention to negative affect.

Negative affect is a major feature of gambling disorders. The majority (63%) of the sample had some form of past or current mood disorder. This prevalence rate is

consistent with current literature (Legg England & Gotestam, 1991; Crockford & el-Guebaly, 1998), which points to the comorbidity between mood disorders and pathological gambling. Suicidal ideation is also common among pathological gamblers (Petry & Armentano, 1999). Notably, 70% of individuals in this study had experienced suicidal ideation, while 28% had made suicide attempts.

Fourteen per cent of the reasons for terminating relapse were related to some form of reappraisal. Within this category, three-quarters of the reasons emerged as having a cognitive component, while the remaining reasons were related to interpersonal reappraisal. Individuals used cognitive techniques to reassess the odds of winning at gambling, to examine their lives without gambling and to explore their beliefs about gambling. Increasing this type of reappraisal is central in cognitive-behavioural therapy (Ladoucer, Boisvert & Dumont, 1994) and in manuals that promote self-change (Hodgins, Currie & el-Guebaly, 2001).

Also of interest within the reappraisal category was the comparative absence of reasons related to interpersonal factors (e.g. noting the effect of gambling on a loved one). The lack of interpersonal influences found in this study stands in contrast to the alcohol studies (i.e. Hodgins et al., 1997; Maisto et al., 1988, 1995) in which interpersonal influences and forms of interpersonal reappraisal (i.e. examining the addiction's impact on family relationships) played a clear role in relapse termination. For people with gambling difficulties, it would appear that interpersonal factors play a less focal role in reasons for relapse termination and a more central role in strategies to terminate relapse.

The absence of reasons related to interpersonal reappraisal and/or interpersonal influences paints an insular picture of the individuals in this study. However, it should be noted that the use of helping relationships was the fourth most frequent strategy used to terminate relapse. Some possible explanations for these findings may arise from the fact that participants in this study were not being treated with therapies that highlight interpersonal influences in addictions (i.e. behavioural marital therapy) (Maisto et al., 1988, 1995). The absence of interpersonal reappraisal and interpersonal influences may be related to the hidden nature of the disorder, the comparative infancy of the recognition of problem gambling (vs. alcoholism) and the associated lack of public knowledge regarding how to intervene and assist someone with a gambling addiction. There could be considerable utility in exploring how interpersonal factors (or the lack thereof) influence relapse rates.

The fourth largest category of reasons for terminating relapse was that of external constraints, accounting for 12% of all reasons cited. External constraints were reasons such as being too busy (in general or with employment), not having transportation to the gambling venue, or other more situation-focused events (e.g. “the bar closed”). As with monetary factors, this category comprises extrinsic

reasons for terminating relapse. The impact of external constraints cannot be discounted; they are important contributors to behavioural alteration. It is possible that external influences such as work commitments or financial constraints may help to initiate change. There may be some validity to the casino intervention programs that deny venue access to gamblers who are on their self-exclusion lists. Future research should explore whether or not it is important that other, more intrinsically based reasons be introduced to maintain change after external factors initiate the change.

In general, the reasons for stopping gambling relapse found in this study were different from those found in the studies of alcohol relapse termination (Maisto et al.; 1988, 1995; O'Malley et al., 1996). For instance, in the study by Maisto and colleagues (1988), people with alcohol problems cited reasons related to personal consequences or events, self-control (e.g. willpower, anticipation of negative events) and external consequences (e.g. treatment admission). As previously discussed, gamblers' reasons were primarily related to monetary factors, affective factors, reappraisal and external constraints. Maisto et al. (1995) found anticipation of problems, emotional consequences of drinking and physical consequences of drinking to be the main reasons for stopping alcohol relapse. Here, there are parallels between the emotional consequence category and the current study's affective category. There may also be a similarity between the physical effects of drinking and the financial effects of gambling.

The categorization system created in the current study differed from the one constructed by Hodgins et al. (1997) and has revealed a number of possible differences in the reasons for terminating relapse between gamblers and people with alcohol problems. It appears as though people with alcohol problems may initially terminate relapse due to immediate addiction-focused reasons (e.g. venue closes, feelings of guilt while engaged in the addictive behaviour, etc.) slightly more often than gamblers. Unlike people with alcohol use problems, few of the gamblers gave reasons that had to do with consideration of future consequences or social influences and interpersonal considerations. These differences, as well as the similarities between the two addictions, should be explored further within the context of one study with identical data collection methods, using a categorization scheme that covers both gambling and alcohol-related reasons.

Examination of individuals' reasons for terminating gambling relapse has provided a descriptive glimpse at the complex array of factors which can influence behaviour change. It can be seen that situational, interpersonal, physical, emotional and cognitive factors all influence the cessation of gambling behaviour. As there is such a wide range of variables that motivate people to terminate relapse, there may be a concomitant need for a multifaceted range of interventions to help individuals meet their goals.

Future research should explore reasons for termination in more detail. Knowing why individuals terminate relapses (or want to terminate relapse) could potentially result in the selection of more meaningful ways to introduce and maintain change. Additionally, it could help to identify potential roadblocks to recovery. Understanding reasons for termination is a key step towards planning effective gambling treatment programs.

**Strategies for terminating relapse**

The second goal of this study was to see if the processes of change model (Prochaska et al., 1992) adequately described and predicted the strategies used by individuals to terminate gambling relapse. Participant responses were reliably categorized into the model's 10 main processes (strategies) of change. Eight of the 10 strategies were used to terminate relapse (see Table 3). Fully supporting prior research, the methods of stimulus control, self-liberation, counterconditioning and use of helping relationships were the most frequently reported strategies. Processes of consciousness raising, self re-evaluation, reinforcement management, dramatic relief and “unclear/other” were used relatively infrequently. Environmental re-evaluation and social liberation were not used by any of the participants.

Prochaska et al. (1992) proposed that individuals are likely to utilize the five strategies of counterconditioning, stimulus control, self-liberation, reinforcement management and helping relationships to terminate relapse and move back into the action and maintenance stages of change. The findings of the present study provide support for all but one of these predictions, as use of reinforcement management techniques (e.g. rewarding oneself or being rewarded by others for making changes) was negligible. Hodgins et al. (1997) also found that reinforcement management was not utilized as a means to terminate alcohol relapse (although the four other strategies were). The authors of the study proposed that the use of contingent rewards to halt relapse may be more appropriate to achieve initial smoking cessation (on which the 10 processes of change are based) rather than to terminate alcohol use relapse. It appears as though this proposition may also hold for individuals with gambling difficulties. Individuals experiencing problems with gambling do not use, are not aware of using or do not report using self-reward or external rewards as a means to halt relapse. External rewards (i.e. a spouse being more affectionate when gambling ceases, removal of financial pressures and money for other life areas) may be subtle or intermittent, and therefore, less likely to be cited as a means to terminate relapse. Use of this strategy generally results in predictable, tangible consequences for discrete self-change events (or lack thereof). Individuals with gambling problems may prefer external consequences to be more intermittent or unpredictable (similar to those in an actual gambling situation) than the continuous

reinforcement, self-management strategies that are generally used. The stigma and ideas of “failure” associated with relapsing may deter individuals with gambling difficulties from rewarding themselves when they do terminate relapse. Terminating a relapse episode may be viewed as something that should occur without external reinforcements.

Participants showed a marked preference for using only one type of strategy (i.e. either cognitive or behavioural) to terminate a relapse (see Table 4); only 26.2% of participants used both cognitive and behavioural techniques. Essentially, participants who used cognitive methods seldom used behavioural ones and vice versa. This finding should be explored further, as current gambling interventions promote the use of both cognitive and behavioural strategies for change (Sylvain, Ladouceur & Boisvert, 1997). Treatment programs may need to be tailored to individuals’ strategy preferences. Alternately, teaching these individuals to utilize both cognitive and behavioural methods of change may improve success rates.

No gender differences were found in the use of cognitive or behavioural strategies; however, there was a trend for women to use more behavioural means to change. This finding should be examined further with larger sample sizes to see if any significant differences emerge.

Overall, the processes of change model (Prochaska et al., 1992) adequately accounts for the strategies used by individuals to terminate gambling relapse. This points to the versatility of the model, as it can account for both long-term (maintenance) and short-term (relapse termination) strategies used to make behavioural changes.

Follow-up studies should be conducted on the individuals from this study to see if the reasons and strategies they cited as salient to terminating their relapses influenced the course of their gambling problem. Discovering whether or not reasons and strategies change over relapse episodes is also important. It would be useful to know if certain reasons and/or strategies are more predictive of future abstinence and/or shorter relapse episodes than other reasons. If this could be determined, clinical interventions could be aimed at helping gamblers become aware of those reasons and strategies which are more predictive of treatment success. Finally, examining the relationships between relapse precipitants, reasons for terminating relapse and the strategies used to do so could yield valuable treatment information.

The area of relapse termination clearly merits more attention. When the complex process of relapse is more thoroughly understood, clients can be taught the best cognitive, emotional and behavioural change methods to better cope with their addictions.

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# Tables

**Table 1**

Ten principal processes of behaviour change

| Process: | Definition: |
|---|---|
| Counterconditioning* | -Substituting alternative for problem behaviours |
| Stimulus control* | -Avoiding or countering stimuli that elicit problem behaviours |
| Self-liberation* | -Choosing and committing to act or the belief in ability to change |
| Reinforcement management* | -Rewarding oneself or being rewarded by others for making changes |
| Helping relationships* | -Being open and trusting about problems with someone who cares |
| Dramatic relief | -Experiencing and expressing feelings about one's problems and solutions |
| Environmental re-evaluation | -Assessing how one's problem affects physical environment |
| Self re-evaluation | -Assessing how one feels and thinks about oneself with respect to a problem |
| Social liberation | -Increasing alternative for non-problem behaviours available in society |
| Consciousness raising | -Increasing information about self and problem |

*Processes with an asterisk are the most frequently used in the action and maintenance stages; therefore, Prochaska et al. (1992) predict them to be used most often in relapse termination.

**Table 2**

Relative frequencies of reasons cited for terminating gambling relapse (N=90)

| CATEGORY | EXAMPLES | N | % |
|---|---|---|---|
| **Monetary Factors** | | 24 | **26.7** |
| *Immediate* | -Running out of money while in the bar | 9 | 37.5 |
| *Non-immediate* | -Lacking funds in general | 15 | 62.5 |
| **Affective Factors** | | 17 | **18.9** |
| *Immediate gambling-focused* | -Disliking the feeling of losing | 9 | 52.9 |
| *Non-immediate* | -Feeling guilty when thinking about relapse | 8 | 47.1 |
| **Reappraisal** | | 13 | **14.4** |
| *Cognitive* | -Reassessing gambling odds | 10 | 76.9 |
| *Interpersonal* | -Examining the effect of gambling on relationships | 3 | 23.1 |
| **External Constraints** | | 11 | **12.2** |
| *Immediate* | -Venue closed | 2 | 18.2 |
| *Non-immediate* | -Generally too busy | 9 | 81.8 |
| **Recommitment to Goal** | -Stopping to achieve abstinence | 6 | **6.7** |
| **Unspecified Obligations** (immediate) | -Had to keep an appointment | 5 | **5.6** |
| **Desire Absent** | -No urge to go back | 5 | **5.6** |
| **Physical Factors** (immediate) | -Fatigue | 4 | **4.4** |
| **Unknown** | | 2 | **2.2** |
| **Avoidance** | -Stopping to prevent adverse financial consequences | 2 | **2.2** |
| **Gambling Goal Attainment** (immediate) | -Hit the jackpot | 1 | **1.1** |

Note: Reasons were provided by 59 participants.

**Table 3**

Relative frequencies of strategies cited for terminating gambling relapse (N=73)

| CATEGORY | EXAMPLES | N | % |
|---|---|---|---|
| Stimulus control | -Limiting access to money<br>-Avoiding gaming venues | 22 | 30.1 |
| Self-liberation | -Just saying "no"<br>-Using willpower | 14 | 19.2 |
| Counterconditioning | -Keeping busy<br>-Developing new hobbies | 14 | 19.2 |
| Helping relationships | -Going to self-help groups<br>-Using prayer | 9 | 12.3 |
| Unclear/Other/Don't Know | -Did not actively do anything | 6 | 8.2 |
| Self re-evaluation | -Soul searching<br>-Life with/without gambling | 4 | 5.5 |
| Consciousness raising | -Record keeping | 2 | 2.7 |
| Dramatic relief | -Grieving past losses | 1 | 1.4 |
| Reinforcement management | -Buying something with the money that would have been spent on gambling | 1 | 1.4 |
| Environmental re-evaluation | | 0 | 0 |
| Social liberation | | 0 | 0 |

Note: Strategies were provided by 42 participants

**Table 4**

Cognitive and behavioural strategies used at least once by men and women

| | Number of Men (N=26) | Number of Women (N=16) | Total |
|---|---|---|---|
| Used at least one cognitive strategy | 14 | 6 | 20 |
| Used at least one behavioural strategy | 16 | 14 | 30 |
| Used at least one cognitive and one behavioural strategy | 6 | 5 | 11 |

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