Gender and perceptions of gambling: A pilot project using concept mapping

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Abstract

Gender differences in gambling behaviour can be explored within the public health model with specific focus on the social attractions and consequences of gambling. This pilot study asked community members to reflect on the negative consequences and positive aspects of gambling. The unique approach of concept mapping was utilized to gather data from information-rich participants. The maps generated through concept mapping provided a look at the differences and similarities in the conceptual frameworks of male and female gamblers. This is important as it points to the specific conceptual domains of gambling that are dominant among men and women.

We conducted two group activities with participants. In the 4 "Brainstorming" groups, participants ($n = 28$) were asked to generate items related to the following topic: "Gambling is a popular passion and people have many experiences with gambling. Please generate statements that describe the pleasurable aspects and negative consequences of gambling." The group activities resulted in the generation of 413 items related to the focal topic. This list was parsed by the researchers to remove duplicates/similar items and those that did not clearly relate to the focal topic. A final list of 73 items was used in the two gender-specific "sorting and rating" groups (9 men and 12 women). In the 2 "Sorting and Rating" groups participants sorted the items into piles of similar items, labelled each pile, and rated the 73 items on three rating questions – one on problem gambling, one on help-seeking, and another on recovery. The participants as a group explored concept maps that were generated from the group activities. These maps represented conceptual domains reflective of the negative consequences and positive aspects of gambling. Men and women separately developed concept maps within each of the sorting and

rating groups. The findings presented in this report suggest that the conceptual frameworks related to gambling may differ among men and women with the dimension "emotional response to the addiction" more salient for men and "seductions of gambling" more salient among women. Findings also suggest that the salience of these dimensions is relatively consistent when considering obstacles to controlling, recovering from problem gambling and help-seeking.

A comparison of the 73 items generated during brainstorming with four widely used gambling screeners (SOGS, CPGI, DSM-IV and VGS) suggests that not all of the statements generated by participants were captured in the screeners. We found 33 items were not comparable to any of the screener questions. While this potentially points to behaviours/beliefs that might be targeted in public health education and interventions, subsequent work on the part of the investigators will look more deeply into these details.

Keywords: gender, concept mapping, gambling screen, public health

Background

Introduction

A meta-analysis of available prevalence studies of gambling was conducted by the Division on Addictions at Harvard Medical School (Shaffer, Hall, & Vander, 1999). This was a landmark meta-analysis of 152 studies conducted between 1977 and 1997, including 35 Canadian studies. Findings from this meta-analysis showed that over the previous 25 years, the estimated prevalence of gambling problems in the general adult population had been low but rising. The estimated lifetime prevalence in the general adult population for problem and pathological gambling combined was reported at 6.72% for more recent studies (conducted between 1994 and 1997) in comparison to a mean prevalence of 4.38% among older studies (conducted between 1977 and 1993). There were no significant differences in prevalence rates between the United States and Canada. A more recent review (Stucki & Rihs-Middel, 2007) showed that the prevalence of past-year excessive gambling varied by study with a low of 0.6% to a high of 6.4%.

The repercussions of problem and pathological gambling extend beyond simply the number of gamblers when we become cognizant that gambling affects family, friends, extended social networks and the community at large. In other words, to approach the issue of gambling from a purely individualistic perspective is to miss the contextual, epidemiological and social characteristics of gambling (Korn, Gibbins, & Azmier, 2003). By applying a public health perspective to gambling-related problems, the quality of life for families and communities affected by problem and pathological gambling can also be addressed.

A Public Health Approach to Gambling

What began in the 1990s as a government-initiated approach to generate supplementary revenue without increasing taxes has now become a widespread expansion of legalized commercial gambling in North America. By 1997, all Canadian provinces received at least 3% of their government revenue from legalized gaming (Shaffer & Korn, 2002). Today, wagering in casinos, spectator sports, charity events and lotteries, has become socially normative and widely available, raising concerns about emergent gambling-related problems and gambling addiction (Korn, 2000).

The Diagnostic and Statistical Manual of Mental Disorders – fourth edition (DSM-IV) and many of the other problem and pathological gambling screeners approach gambling from a clinical perspective, treating gambling as an addiction within the medical model. In particular, the DSM-IV treats gambling addiction as an impulse control disorder that often occurs in conjunction with other medical conditions associated with stress, including increased rates of mood disorders, attention-deficit/hyperactivity disorder, substance abuse or dependence, and antisocial, narcissistic, borderline personality disorders (see Shaffer et al., 2002).

The St. Louis Epidemiological Catchment Area study found that both social and problem gamblers were more likely to experience other psychological disorders with the most prevalent being antisocial personality disorder (Shaffer et al., 2002). More recent research suggests that the relationship between gambling problems and psychiatric disorders is similar among men and women, but that there may be stronger associations between increasing severity of past-year gambling and Axis-I and Axis-II disorders among women (Desai & Potenza, 2008).The co-occurrence of gambling and other mental health conditions has public health implications with respect to policy enactment and accountability to these policies, prevention and harm reduction

practices that minimize the undesirable health, social and economic consequences of problem gambling for individuals, families and communities. These safeguards are not easily enacted amid social norms that gambling is a personal prerogative. In fact, findings from the 1999 Canada West Foundation national survey showed 63% of Canadians agreed that it was their right to gamble (Korn et al., 2003). Politzer and colleagues (1992) countered this general belief when they estimated that each problem gambler affects 10 to 17 people around them, including those in their family, their employer and the government. A comprehensive analysis of gambling includes recognition of the broad impact of this social behaviour and related problems on the individual and society; only then can we fully understand how to develop intervention and treatment strategies that promote responsible gambling behaviour.

The public health perspective addresses the shortcomings of existing gambling frameworks by incorporating the various dimensions of gambling into a multi-level health promotion framework that balances gambling costs and benefits. Public health issues related to gambling include gambling addiction, family dysfunction, gambling among youth, substance abuse, disruption of the development of children and domestic violence (Adams, Raeburn, & de Silva, 2009; Korn, 2000). These costs to gambling are juxtaposed against the benefits, most evident in reducing social isolation among vulnerable groups (e.g., elderly), the positive experiences around group socialization and interpersonal connectedness, wagering in low-risk situations, finding a social outlet to cope under stressful situations that arise in the course of living and escaping through leisure entertainment (Potenza, Fiellin, Heninger, Rounsaville, & Mazure, 2002; Shaffer et al., 2002).

In the end, it is an individual's decision to gamble. To ensure that the individual can make an informed decision on the risks associated with gambling a public health framework that

promotes awareness and education needs to be in place and supported by all community,

healthcare and industry members (Blaszczynski, Ladouceur, & Shaffer, 2004).

Medical and Sociological Perspectives on Gambling

The overwhelming focus on problem and pathological gambling has emerged from the

medicalization of gambling, which began with psychoanalysts who attempted to explain

excessive gambling through oedipal and pregenital determinants. Bergler (1957) identified the

neurotic gambler as "compulsive." Gamblers Anonymous (GA), established the same year that

Bergler's book, *The Psychology of Gambling*, was published, predicates its program on

abstinence and operates under the tenet that compulsive gamblers have lost their ability to

control their behaviour. The disease label (compulsion) enables gamblers to absolve themselves

of guilt and responsibility of misdeeds. The gambler relinquishes control and becomes an object

to be controlled and treated. This early conceptualization of excessive gambling as an illness

beyond the control of the individual, the overwhelming use of treatment populations to define the

behaviour and the formal acceptance of pathological gambling as an "impulsive" psychological

disorder by the American Psychiatric Association in 1980 (Korn et al., 2003) have coloured

much of the research in the field, including the development of screening instruments to identify

problem and pathological gambling. Only one of these screening instruments, the Victorian

Gambling Screen, sought out those involved in regular and heavy gambling, as well as health

care providers and family/friends of gamblers, in its development. An emphasis on

understanding the social impact of gambling on the family, coworkers, and the community

provided a more comprehensive picture of the gambling experience (Gambling Research Panel,

2003).

More recent research has also found that the other common attractions of gambling –
socialization, excitement, potential financial freedom – are what draw particular populations who
develop gambling-related problems (Messerlian, Derevensky, & Gupta, 2004; Shaffer et al.,
2002). While the meta-analysis out of Harvard Medical reported a low prevalence in the general
adult population, these researchers have found gambling-related problems to be "hyperendemic"
among youth, psychiatric patients, prisoners and Aboriginals.

In contrast to the medical approach, sociologists like Goffman (1982; 1959) focused
more specifically on what motivates "ordinary" people to indulge in gambling. Departing from
the mainstream assumption that gambling was "irrational" and "pathological" behaviour, he
explored the social rationalities – or benefits – that attracted people to this activity and to sustain
it as an integral part of their lives. Goffman suggested that gambling provides a socially
acceptable arena in which risk-taking behaviour, which is highly valued in Western society, can
be actively pursued and provides escape from the mundane activities of everyday life (Goffman,
1982; Goffman, 1959).

Gender and Gambling

Rich data from ethnographic studies attest to the complex nature of gambling
environments (Neal, 1998; Neal, 2005; Newman, 1968; Saunders & Turner, 1987; Zola, 1963).
In Dixey's (1987) study of women and bingo and in Neal's (2005) study of men and horserace
betting, the findings suggest that there is a sense of thrill associated with the prospect of the big
win, but there is also the recognition that the "win" is not realistic. As one male punter put it, "I
lose, but that's not the point" (Neal, 2005, pg. 207). This sentiment is reflected by a female bingo
player who said, "it's not a question of winning money or losing money, it's more somewhere to
go" (Dixey, 1987).Winning creates excitement and encourages people to return, but that is not

the end of the story. Gambling is a source of leisure-time activity that attracts people to this social environment for reasons other than "making it big." Gambling creates a bond for those on the inside. In a study of off-track betting in a bar in New England, findings indicated that men who participated in betting on the races were "insiders" and given status as part of the group (Zola, 1963). A study of women and how they spent their leisure time found that bingo provided an opportunity for contact with other women and offered a way to escape the confines of the home (Dixey, 1987). Korn (2003) further revealed that women gamble to relieve loneliness and reduce boredom more than for the excitement, pleasure, or financial gain.

Hallebone (1999) argues for more exploration of the actual experiences of women gamblers. The medicalization model often reduces gambling activity to illness, however studies from Australia where gambling has a long history as a recreational activity (Ben-Tovin, Esterman, Tolchard, & Battersby, 2001) situate gambling, especially female gambling, within a social and leisure literature (Casey, 2003; Casey, 2006; Hallebone, 1999). Several studies suggest that social factors that influence reasons for and persistence in gambling differ by gender. Hraba and Lee (1996) identified several risk factors for women, including lower socioeconomic status (SES), military service, no religious affiliation, childhood exposure to gambling, number of marriages, number of residential moves and team lottery play. For men, alcohol consumption and having family/friends who gamble influence their involvement in gambling. The types of gambling activities that men and women prefer differ; women prefer to play casino slot machines, Video Lottery Terminals (VLTs) and bingo, while men prefer to gamble on games of skill (e.g., sports and animal racing) (Turner, Zangeneh, & Littman-Sharp, 2006). Men and women involved in excessive gambling are similar with respect to frequency of

gambling, wagering amounts and time spent at gambling; however, men report heavier gambling losses (Turner et al., 2006).

Research points to faster progression to problem gambling among females as compared with males despite the fact that women begin gambling later in age than men, a phenomenon known as "telescoping" (Tavares et al., 2003; Turner et al., 2006). Research using the South Oaks Gambling Screen (SOGS) suggests stark differences between pathological gamblers seeking treatment and those identified in the general population: treatment populations are generally white, middle-aged men while those in the general population are more likely to be women, minorities, and of lower education (Volberg, 1994).

Gender differences in gambling behaviour may reflect gender-specific socialization. Men may more often begin gambling for the excitement, while women may begin gambling to escape stressful or unsatisfying life contexts, because their friends gamble, or because they are living with someone with a current gambling or alcohol problem (Ladd & Petry, 2002). Women may seek out gambling as an opportunity for non-demanding social interaction, for a sense of independence, to feel safe in an otherwise male dominated recreational environment, to feel equal to their male counterparts, to escape the humdrum of life in the home and to cope with domestic abuse (Hallebone, 1999; Hraba & Lee, 1996). Women who engage in problem gambling may be lonely or estranged from conventional social networks (e.g., family and neighbours) and more integrated into the social world of gambling (Grant & Kim, 2002; Hraba et al., 1996). For women, gambling may be tied to their social networks, a situation that may make it more difficult for them to remove themselves from gambling situations and pressures.

Treatment Seeking and Stigma

Opportunities for gambling have become more accessible, especially through lotteries and electronic gaming machines (EGMs), internet gambling, and VLTs. These new modes of gambling have lead to what has been termed the "feminization" of problem gambling by Australia's Productivity Commission (1999). "Feminization" refers to the idea that more women are gambling, are developing gambling problems and are seeking assistance for these problems than was true in the past. Indeed, a recent report from Australia suggests that the margin separating the prevalence of pathological gambling among men and women has narrowed significantly. Research on treatment outcomes and interventions for gambling-related problems is more prolific for men than women (Dowling, Smith, & Thomas, 2006). Gender differences in demographics, gambling patterns and psychological characteristics point to the possibility that different mechanisms may operate to impede seeking help for gambling-related problems among men and women. While the literature on gender differences in risk factors for gambling-related problems is growing, there remain understudied areas, including whether treatment approaches should differ for men and women, and if so, what constitutes effective treatment approaches for women. The experience of stigma, reasons for initiation and persistence in gambling may provide some insight into these differences.

Findings from qualitative studies of problem gambling suggest that stigma plays a key role in the public's perception of gamblers; for example women with gambling problems are perceived more negatively than men (Gambling Research Panel, 2003; Grunfeld, Zangeneh, & Grunfeld, 2004). Problem gambling is viewed as socially unacceptable and an activity shrouded in secrecy and shame. Problem gamblers are often perceived as weak willed and irresponsible by work colleagues and family (Rosecrance, 1985). Labelling, which is an integral aspect of the

medical model, may itself result in stigma (Grunfeld et al., 2004; Rockloff & Schofield, 2004); this may cause additional harm to those that the medical model seeks to help and moreover, may create barriers to seeking help not only from professionals, but from friends and family. The shame and loss of self-esteem associated with the "problem gambling" label makes seeking and getting help more difficult. Women who are pathological gamblers are less likely to seek or enter treatment for gambling-related problems, a situation analogous to treatment of women with alcohol problems. In the past, the stigma of being an alcoholic was sufficiently excessive that women were reluctant to seek treatment. What's more, it was often the case that when these women sought treatment they were misdiagnosed (Sandmaier, 1980; Volberg, 1994). Those who sought treatment were also found to have a greater variety and intensity of psychological problems than those who did not seek help (Shaffer et al., 2002).

A recent study found that stigmatization within professionals working with clients labelled as pathological gamblers does exist and is reinforced by the language of the DSM-IV, the medical model and the media. Many providers endorse popular stereotypes of pathological gambling that create a picture of the gambler as unable to control him/herself, as irresponsible, and as liars and criminals (Grunfeld et al., 2004). "The language used to describe certain behaviour, the messages transmitted through media and other communication channels serves to construct the 'problem gambler' as a class apart; a form of social classification that stigmatises rather than supports" (Gambling Research Panel, 2003).

By asking men and women about their experiences we seek to understand what is similar and what is different about gambling for men and women. We also seek to understand what creates difficulties for individuals when trying to control their gambling, what interferes with recovery and how stigma associated with gambling keeps individuals from seeking help. Finally,

we seek to understand if the experiences of gambling in our sample reflects the items currently used in adult problem/pathological gambling screeners (both clinical and sub-clinical). We believe it is important to seek specific information from men and women on their perceptions of barriers and obstacles that interfere with recovery and help-seeking for problem gambling given that the literature is far from definitive on how men and women themselves reflect on these issues.

Methods

Research Design

The mixed-method approach of concept mapping was used to explore experiences with and perceptions of gambling. The approach has been used extensively in organizational planning and evaluation (Trochim, 1989), and more recently, in studies of mental health and violence (Burke et al., 2005; Johnsen, Biegel, & Shafran, 2000; O'Campo, Salmon, & Burke, 2009). Concept mapping incorporates a structured process that allows individuals to identify concepts and/or issues and to participate in the interpretation of their group perceptions. The approach helps groups organize complex and diverse ideas into an understandable and coherent framework (Trochim, 1989). Concept mapping was a particularly useful tool for examining the aims and research objectives of the study described herein. Through an inductive process, concept mapping allowed for the collection of a wide range of participant-generated ideas regarding gambling. By using the concept mapping analytic tools of multidimensional scaling (Kruskal & Wish, 1978) and cluster analysis (Aldenderfer & Blashfield, 1984) we compared similarities and differences about ideas on gambling by gender.

The concept mapping approach is not specifically theory-driven and does not necessarily build on existing knowledge. Rather, it is an approach that seeks to obtain the perspective of

participants, and as such, has the potential to inform and augment the current knowledge base. The concept mapping approach allowed participant reflections to emerge naturally without predetermined notions about gambling or influence from the research team; thus, allowing us to delve more deeply into how men and women view gambling behaviour. The study was reviewed and approved by the St. Michael's Hospital Research Ethics Board.

Recruitment and Screening

To fully understand problem gambling, it is necessary to study the experiences of all those involved in gambling, not just the problem gambler. A large proportion of those seeking problem gambling services are partners and spouses of problem gamblers (Sullivan, McCormick, & Sellman, 1997). Assumptions about partners of problem gamblers have largely been based on studies and clinical impressions about wives of alcohol-dependent men and little research to date has examined the impact of gambling on family members. The views of health service providers are also important, as these are the front-line workers that feel the impact of increased public access to gambling venues and modes of gaming.

We used purposive sampling for recruitment of our three pre-defined groups – leisure and problem gamblers, family members of gamblers and health care providers. Purposive sampling is useful for situations where researchers need to reach a targeted sample quickly and where sampling for proportionality is not the primary concern. A limitation of this sampling method is that while we are likely to get the opinions of our target population, we are also likely to over sample subgroups in our population that are more readily accessible. The use of self-selection is often viewed as problematic since the sample(s) may not be representative of the populations of interest. As our specific aim was to engage with information-rich cases, purposive sampling was appropriate. While it is true that the specific individuals who participated may have limited the

breadth and depth of the conceptualizations that emerge from the concept mapping process, we were specifically interested in perceptions of gambling from those who were in some way engaged in gambling culture, either directly or indirectly. Participants of the concept mapping activities are often considered cultural experts: in this case, the opinions of gamblers, their families and health care providers were considered valid due to their membership in the populations of interest.

Recruitment of participants from gaming facilities operated by the Ontario Lottery and Gaming Corporation was facilitated by Judith Glynn at the Ontario Problem Gambling Research Centre. Participants in the gambling and family groups were recruited through a large poster display at Woodbine Racetrack. Posters were delivered to the site on September 11, 2007 and were displayed until October 5, 2007. Posters invited participants to attend discussion groups if they liked to gamble or had family members who liked to gamble. Posters indicated that participants would get together twice to talk about gambling. A contact name and number were provided for individuals interested in participating. Most participants indicated that they heard about the study through Woodbine Racetrack ($n = 19$). The remaining 9 participants were either referred to the study through other participants or through research personnel.

A script was prepared to determine if those who showed interest were eligible to participate. Eligibility criteria included: older than 18 years of age, gambled themselves or had a family member that gambled in the past 12 months, good written and oral English skills (this was required as the concept mapping activities required manipulation of concepts written on cards and short surveys) and had the ability to attend more than one session.

Health care professionals were more difficult to recruit, primarily due to the time commitment required for the group activities. Participants were asked to be part of the two group

activities of significant length (1.5 hours for brainstorming and 4 hours for sorting and rating).

Health professionals were contacted through email and phone by one of the research team

members who knew/worked with these individuals in the past.

Potential participants who called the contact number and left their own contact

information were called back by research personnel. The research team member introduced

herself and described the project. This phone call was used to determine eligibility, the group

status of the caller (leisure or problem gambler, family member or healthcare provider), age,

gender, and availability.

Sixty-one people completed the eligibility screener. Fifty-seven people were called and

screened for ability to speak English and availability to participate in the two group sessions.

Twenty-eight participated in four brainstorming sessions (male gamblers, female gamblers,

health care providers, and those whose self and/or family members gambled). Twenty people

were confirmed for the two sorting and rating sessions (male gamblers and female gamblers), of

which 19 arrived on time and participated.

During the brief telephone screening, a modified short form version of the SOGS (SOGS-

SF) determined the status of the caller with respect to problem gambling (Strong, Breen, Lesieur,

& Lejuez, 2003; see Table 1). We chose this short version to reduce interview fatigue during the

initial screening telephone call.

The SOGS-SF scale can be interpreted as follows (based on yes/no responses): a

summated score of 1 reveals potential for problems; 2 reveals likely problem gambling; 3 or 4

represents significant levels of problems noticeable by others; and 5 or 6 represents severe

problems with significant financial involvement.

Table 1. Six-item gambling screen based on the SOGS-SF

1. Did you ever gamble more than you intended to?
2. Have you ever borrowed money from household money to gamble or pay gambling debts?
3. Have you ever borrowed money on your checking account (passed bad checks) to gamble or pay gambling debts?
4. Have you ever borrowed money from someone and not paid them back as a result of your gambling?
5. Have you ever borrowed money from banks, loan companies, or credit unions to gamble or pay gambling debts?
6. Have you ever cashed in stocks, bonds, or other securities to gamble or pay gambling debts?

Data Collection with Concept Mapping

Two central activities were involved in the collection of data: "brainstorming" and "sorting and rating." Concept mapping tasks are labour intensive so considerable participant time was necessary to complete the goals of the activities. Prior research has shown that brainstorming groups can be completed in 1.5 hours while sorting and rating groups can be completed in 5 hours (Burke, O'Campo, & Peak, 2006). Participant burden was reduced through intensive training of group facilitators, planned breaks, provision of food and beverages and compensation. All groups were held at a centrally located venue that was close to public transportation in the city of Toronto, Ontario. Before each brainstorming session, a short survey was administered to participants that collected information on age, gender, income and gambling activities (see Appendix 1).

Brainstorming

The purpose of each brainstorming session was to have participants generate their own set of views and experiences about social and problem gambling. Prior to the brainstorming activity, participants provided informed and written consent. Once the session began, the facilitator introduced the research personnel and set the ground rules for the evening.

The brainstorming session began with an ice-breaker, an activity that is often used in groups to create a positive group atmosphere, help people to relax, get them engaged and to feel comfortable in a group environment and with each other. After the ice-breaker, the main discussion began, with the facilitator providing a definition of gambling that was written on a flip chart for reference throughout the brainstorming activity (see Table 2).

A short discussion provided time for clarification and additional ideas on what might be considered gambling. Once participants were satisfied with the definition, the main

brainstorming activity began, and focused on the focal question (see Table 2) that asked about

the pleasurable aspects and negative consequences of gambling. The facilitator instructed

participants that their perceptions could be based on their own experiences, those of their

neighbours, family, friends or their patients/clients. The facilitator encouraged participants to

generate several items and to contribute items they felt should be on the list. All items were

written on flip charts and placed around the room for easy viewing by participants, research staff

and facilitators.

Table 2. Working definitions, focal question and ratings questions for study of gambling

Gambling	Gambling can be described as betting money or something of material value on an event with an uncertain outcome, in hopes to win more money or material goods like suitcases or trips. There are a variety of activities that may be considered gambling such as, playing card games like blackjack or playing the slot machines at casinos, placing bets on horses/dogs at a race track. There are less obvious forms of gambling such as playing the lottery, betting money at a bingo hall, placing money in the stock market, online betting and playing cards with friends.
Focal question for brainstorming	Gambling is a popular passion and people have many experiences with gambling. Please generate statements that describe the pleasurable aspects and negative consequences of gambling
Rating question about problem gambling	Some ways of thinking, acting and feeling might make it difficult for a person to control his or her gambling. Please rate, on a scale of 1 to 5, how strongly you feel each item is an "obstacle or barrier" for a person trying to control his or her gambling. 1 = Not at all an obstacle for a person trying to control his/her gambling 2 = Somewhat an obstacle for a person trying to control his/her gambling 3 = Moderate obstacle for a person trying to control his/her gambling 4 = Strong obstacle for a person trying to control his/her gambling 5 = Extremely strong obstacle for a person trying to control his/her gambling
Rating question about recovery/stigma	When a person has difficulty controlling his/her gambling, certain ways of thinking, acting and feeling may make it difficult for him or her to overcome this problem. We are interested in knowing how strongly you feel each item interferes with recovery when a person has difficulty controlling his/her gambling (by recovery we mean changing your behaviour to either stop gambling completely or gambling "within limits" without harming yourself

or others around you). Please rate, on a scale of 1 to 5, how strongly you feel each item "interferes with recovery" when a person has difficulty controlling his/her gambling.

1 = Does not interfere with recovery
2 = Somewhat interferes with recovery
3 = Moderately interferes with recovery
4 = Strongly interferes with recovery
5 = Extremely interferes with recovery

Rating question about help-seeking	Sometimes when a person has difficulty controlling their gambling, their behaviours and actions can negatively affect the reputation of the gambler and/or their family (e.g., they are viewed as disgraced, immoral, and unable to control themselves). This may, in turn, interfere with the gambler's ability to seek help for their difficulty in controlling their gambling. Please rate, on a scale of 1 to 5, to what extent each item keeps a person from "seeking help when they have difficulty controlling their gambling" because of the negative affect of that behaviour or action on the gambler's reputation or the reputation of his/her family.

1 = Does not interfere with ability to seek help due to its effect on reputation
2 = Somewhat interferes with ability to seek help due to its effect on reputation
3 = Moderately interferes with ability to seek help due to its effect on reputation
4 = Strongly interferes with ability to seek help due to its effect on reputation
5 = Almost completely or completely interferes with ability to seek help due to its effect on reputation

Once a list of items was generated and participants were unable to think of any new items to add to the larger list, the facilitator reviewed the statements one-by-one to seek out duplicates and statements that did not correspond to the original focal question. As the statements were reviewed the facilitator and the participants engaged in a more in-depth discussion for those that needed greater clarity and to gather opinions and agreement on whether each item truly reflected the focal question. New items could be added at this time. Once the participants were satisfied with the list of items they were thanked and collected their honorariums ($25). Brainstorming took approximately 1.5 hours.

Data Compilation after Brainstorming

A master list of 416 items was compiled from the four brainstorming sessions. The list was reviewed and manual item reduction was used to eliminate duplicate and very similar items and those that were not reflective of the focal topic (e.g., nice hotel rooms, casinos never lose). It was important to reduce the number of items to minimize undue burden on participants during the "sorting and rating" activities. This final refined list included 73 items (see Table 6) that were used during the sorting and rating activities.

Sorting and Rating

Selected participants from the brainstorming groups were invited to participate in two sorting and rating groups, each 4 hours in duration. Participants that struggled with the brainstorming activities were not called to participate in the more complex process of sorting and rating. Prior to the sorting and rating activities, participants were reminded of the consent process from the brainstorming activities. Once the session began, the facilitator introduced the research personnel and set the ground rules for the evening. The definition of gambling was reviewed and remained on the flip chart for reference during the activities. The facilitator then described the sorting task and explained how the list of items that the groups generated were paired down to 73 from a larger list of 413 that were generated during the four brainstorming sessions. Some participants were concerned that items generated from their group were not on the list of 73 items. At this point, the facilitator explained the process used to reduce the number of items (removal of duplicates and similar items and removal of items that were not reflective of the focal question). The list of 73 items was projected onto a screen and the group reviewed the items together.

For the sorting tasks, each participant received a deck of index cards, each of which had written on it one item from the consolidated list of 73 items. Participants were asked to perform

the following tasks: 1) sort the cards into piles that made sense for them; and 2) provide a name for each pile. They were instructed to: 1) place each card in only one pile; 2) refrain from sorting the cards into fewer than three piles; and 3) refrain from placing all items into separate one-item piles. When these tasks were completed by each participant, and while the group was still in progress, the piles and pile labels were checked for completeness. These data were then entered into the Concept System software by members of the research team while the group began the second data collection activity.

The second data collection activity involved collecting data regarding the perceived importance of items in relationship to participants' experiences of problem gambling, stigma and help-seeking, and recovery. Participants were given three sets of sheets, each listing the 73 items. They were asked to rate each item on the list in terms of its importance (on a five-point scale) as an obstacle in the control of problem gambling. This rating was repeated for the importance of each item in recovery from problem gambling and the importance of each item in keeping someone from help-seeking due to the stigma associated with gambling. Table 2 shows the wording and the Likert-type response categories that were used for the rating activities.

Once the piles were completed and the pile labels were checked for completeness, participants' rating responses were simultaneously entered into the computer by the research team members. The concept mapping software has built-in quality control for data entry, thus obviating the need for double entry. During the sorting and rating session, the data were entered into the Concept Systems software[1] where multidimensional scaling (Kruskal et al., 1978) and cluster analysis (Aldenderfer et al., 1984) were performed to obtain information about the distance of each item to other items and to create "clusters" of items representing conceptual

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[1] Concept Systems. The Concept System. Ithaca, NY: Concept Systems Inc; 2004. http://www.conceptsystems.com.http://www.conceptsystems.com.

domains. The concept system software performs these tasks quickly, which enabled us to share the results with the participants during the latter half of the sorting and rating group session. This enabled the participants to immediately view, understand and participate in the analyses of the concept maps that yielded a final group map, which represented what they, as a group, believed was an accurate representation of their views.

Concept Mapping

Participants were engaged in the interpretation and analyses of maps constructed during the concept mapping groups. Multidimensional scaling (Kruskal et al., 1978) of all the data was performed to sort the data across participants and develop simple maps (point maps) that illustrated each item as a point on the map. The points, representing items that were pile-sorted together by more people, appear closer to each other on the map. Hierarchical cluster analysis was used to partition the point map from multidimensional scaling into hierarchical cluster domains of items. The group facilitator led a discussion that helped participants to evaluate different cluster solutions (e.g., a five-cluster vs. seven-cluster solution). To analyze the data with participants during the groups, emphasis was placed on viewing, confirming the maps and naming the clusters. The participants collectively determined which cluster solution (the total number of clusters) best reflected their ideas about gambling. The Concept Systems software allowed easy display of maps with different numbers of clusters. The two groups each selected maps with six clusters, but with somewhat different cluster names.

This mapping process with two groups – one with male participants and the other with female participants – provided gender-specific representations of the concept map. Neither group had the benefit of seeing the maps that were generated in the other group. The researchers, consequently, processed the data further to arrive upon a concept map for the entire sample of

men and women. Stress values, multidimensional scaling diagnostic statistics that reflect the goodness of fit of the map to the original dissimilarity matrix that served as input (Kruskal et al., 1978), were calculated for group-specific and overall map solutions and were found to be very similar. A lower stress value implies a better fit. The stress value for the final map generated by the researchers was 0.25; the values for the male and female maps were 0.31 and 0.27, respectively. According to Kane and Trochim (2007), stress values in the range of 0.21 to 0.37 are acceptable with 95% of concept mapping projects producing stress values within this scope. It was not possible within this project to return to the groups and incorporate further feedback from participants on the aggregated map.

Comparison of Concept Mapping Items and Gambling Screening Questions

To compare concept mapping items (CM-items) with gambling screens, we focused on the SOGS, Canadian Problem Gambling Index (CPGI), Victorian Gambling Screen (VGS) and DSM-IV. We compared the 73 CM-items (Table 6) with each of the questions in the gambling screeners (see Appendix 2 for each screener) to see if the CM-items were captured as a screener question. Each screening inventory was examined independently.

Results

Sample Description

Sociodemographic information for participants is presented in Table 3, stratified by gender. Overall, 28 individuals participated in the study. The mean age of participants was 53.2 years (*SD* = 12.9). Ten participants were male (36%) and 18 were female (64%). The majority of participants (82%) did not have dependent children. Almost 40% of the participants were divorced, separated or widowed. Forty-three percent had completed post-secondary education and 54% had annual household incomes under $40,000. More than half of the participants

reported their country of birth as other than Canada (61%), 25% reported their ethnic identity as

North American and 32% reported Chinese ethnicity.

Table 3. Characteristics of participants in concept mapping study of gambling (*n* = 28).

Variable	*All Adults*	*Male*	*Female*
Mean Age (*SD*)	53.2 (12.9)	55.0 (16.6)	52.2 (10.7)
		Number (percent)	
Total	28	10 (35.7)	18 (64.3)
Marital Status			
Married/Common-law	9 (32.1)	3 (30.0)	6 (33.3)
Single	8 (28.6)	3 (30.0)	5 (27.8)
Widowed/Divorced/Separated	11 (39.3)	4 (40.0)	7 (38.9)
Number of Dependent Children			
None	23 (82.1)	10 (100.0)	13 (72.2)
One or more	4 (14.3)	0 (0.0)	4 (22.2)
Missing	1 (3.6)	0 (0.0)	1 (5.6)
Level of Educational Attainment			
Less than High School	4 (14.3)	1 (10.0)	3 (16.7)
High school Diploma	5 (17.9)	2 (20.0)	3 (16.7)
Some Post-secondary	7 (25.0)	3 (30.0)	4 (22.2)
Completed Post-secondary	12 (42.9)	4 (40.0)	8 (44.4)
Annual Household Income			
Income <$20,000	7 (25.0)	3 (30.0)	4 (22.2)
Income $20,000- $39,999	8 (28.6)	3 (30.0)	5 (27.8)
Income $40,000- $59,999	7 (25.0)	2 (20.0)	5 (27.8)
Income $60,000-$79,999	3 (10.7)	1 (10.0)	2 (11.1)
Income > $80,000	2 (7.1)	1 (10.0)	1 (5.6)
Missing	1 (3.6)	0 (0.0)	1 (5.6)
Country of Birth			
Canada	11 (39.3)	4 (40.0)	7 (38.9)
Other	17 (60.7)	6 (60.0)	11 (61.1)
Ethnic Origin			
North American	7 (25.0)	4 (40.0)	3 (16.7)
Chinese	9 (32.1)	3 (30.0)	6 (33.3)
South East Asian	3 (10.7)	1 (10.0)	2 (11.1)
Portuguese	3 (10.7)	0 (0.0)	3 (16.7)
Caribbean	3 (10.7)	0 (0.0)	3 (16.7)
Italian	1 (3.6)	0 (0.0)	1 (5.6)
Spanish	1 (3.6)	1(10.0)	0 (0.0)
Latina	1 (3.6)	1 (10.0)	0 (0.0)

Note: No statistical tests performed due to small cell counts.

Gambling Behaviours

     Participants were asked twice about their self-reported gambling behaviour (Table 4). During the telephone eligibility screening stage participants were asked to respond to the SOGS-SF based on their gambling activity over the previous 12 months. Thirty-six percent of the participants were classified as having no problems and 32% showed potential for problems. The remaining participants were classified as likely having problems (3.6%), significant problems (25%) and severe problems (3.6%).

     When participants were asked to describe themselves by their gambling activity in the questionnaire, 18% indicated they were non-gamblers, 14% infrequent gamblers (less than twice a month), 39% frequent gamblers (more than twice a month), 21% problem gamblers and 7% recovered gamblers. Thus, according to the SOGS-SF, 32% of the participants were categorized as having likely, significant or severe gambling problems while 28% self-identified as problem and recovered gamblers in response to the questionnaire.

Table 4. Gambling status of concept mapping participants, SOGS-SF and self-report (n = 28).

Variable	*All Adults*	*Male*	*Female*
Self-Reported Type of Gambler	number (%)	Number (%)	number (%)
Non-Gambler	5 (17.9)	0 (0.0)	5 (27.8)
Infrequent (< 2/month)	4 (14.3)	1 (10.0)	3 (16.7)
Frequent (> 2/month)	11 (39.3)	5 (50.0)	6 (33.3)
Problem Gambler	6 (21.4)	3 (30.0)	3 (16.7)
Recovered Gambler	2 (7.1)	1 (10.0)	1 (5.6)
SOGS Revised (scored 0 to 6)			
No problems (score=0)	10 (35.7)	3 (30.0)	7 (38.9)
Potential for Problems (score=1)	9 (32.1)	4 (40.0)	5 (27.8)
Likely Problem Gambling (score=2)	1 (3.6)	1 (10.0)	0 (0.0)
Significant Problems (score=3-4)	7 (25.0)	2 (20.0)	5 (27.8)
Severe Problems (score=5-6)	1 (3.6)	0 (0.0)	1 (5.6)

Note: No statistical tests performed due to small cell counts.

Referring to Table 5, the most popular types of gambling activities among participants included the purchase of lottery tickets, such as Lotto 649 and Super 7 (75.0%), and gambling at a casino (71.4%). Among current gamblers, while the purchase of lottery tickets and gambling at a casino were still the most popular types of gambling activities (88.9% and 83.3%, respectively), instant scratch-and-win (61.1%), raffle tickets (61.1%) and stock investments (44.4%) were also popular.

Table 5. Twelve-month Gambling Activities Reported by Participants ($n = 28$).

Gambling Activity	All (%)	Males (%)	Females (%)
Bought lottery tickets like the 649, Super 7, or POGO	21 (75.0)	6 (60.0)	15 (83.3)
Gambled at any type of casino including illegal or charity casinos	20 (71.4)	8 (80.0)	12 (66.7)
Bet/spent money on coin slot machines or VLTs in a casino	16 (57.1)	6 (60.0)	10 (55.6)
Bought raffle or fundraising tickets	12 (42.9)	2 (20.0)	10 (55.6)
Bought instant win or scratch tickets (e.g., Cash for Life, Instant Crossword, Instant Bingo, The Price is Right, Instant Keno)	14 (50.0)	4 (40.0)	10 (55.6)
Bet on horse races (e.g., live at the track and/or off-track)	8 (28.6)	4 (40.0)	4 (22.2)
Bought daily lottery tickets like Pick 3	7 (25.0)	2 (20.0)	5 (27.8)
Played blackjack in a casino	8 (28.6)	4 (40.0)	4 (22.2)
Bet on dog races (e.g., live at the track and/or off-track)	2 (7.1)	0 (0.0)	2 (11.1)
Played bingo (e.g., online or at a bingo hall)	7 (25.0)	1 (10.0)	6 (33.3)
Played poker in a casino	4 (14.3)	3 (30.0)	1 (5.6)
Played roulette in a casino	4 (14.3)	2 (20.0)	2 (11.1)
Played craps in a casino	2 (7.1)	2 (20.0)	0 (0.0)
Played VLTs	3 (10.7)	0 (0.0)	3 (16.7)
Played a sports lottery like Sport Select (e.g., Pro Line, Over/Under, Point Spread)	3 (10.7)	1 (10.0)	2 (11.1)
Bet or spent money on sports pools	1 (3.6)	1 (10.0)	0 (0.0)
Bet on cards or board games with family or friends	7 (25.0)	2 (20.0)	5 (27.8)
Bet or spent money on games of skill such as pool, bowling, or darts	2 (7.1)	1 (10.0)	1 (5.6)
Bet on arcade or video games	1 (3.6)	0 (0.0)	1 (5.6)
Gambled on the Internet	3 (10.7)	3 (30.0)	0 (0.0)
Personally invested in stocks, options, or commodities markets (not mutual funds/RRSPs)	8 (28.6)	5 (50.0)	3 (16.7)

Note: No statistical tests performed due to small cell counts.

Brainstorming

Twenty-eight people participated in brainstorming. Four groups were scheduled, consisting of a mixed gender group of 4 health care providers, a group of 9 men, a group of 11 women, and another group of 4 women. The participants generated 413 items that were then parsed by the research team to a list of 73. These 73 items are shown in Table 6.

Table 6. CM-items used in Sorting and Rating Groups

Item #	Concept Mapping Item
1	Feels good like drugs and alcohol
2	The severity of the problem is a shock for families
3	Creates rifts/conflicts in relationships
4	Feel lucky
5	Believe the casino can be beat
6	Continue to gamble to cover losses
7	Feel isolated
8	Gambling increases alcohol and drug use
9	Can help resolve your financial problems
10	Gambling is a worse addiction because you don't get sick like with drugs or alcohol
11	Feel pressure from spouse/friends to gamble
12	Casinos make you feel important when you spend lots of money
13	Lose self respect/self esteem
14	Frustrated when losing
15	Loss of trust of family members
16	Receive VIP treatment
17	Get physical pain when you lose (feel sick)
18	Use gambling as a way to cope
19	Sense of failure
20	Use money meant for family
21	Uplifting environment
22	Gambling is like alcoholism
23	Anger from families
24	Gambling reduces stress
25	Casino tricks you into thinking you can win
26	People use excuses or illogical reasons to gamble
27	Acquire large sums of money quickly
28	Shame
29	Blame others for losing
30	Gambling is a way to kill time
31	Blame ourselves for the loss
32	Hypnotic/lose sense of time (no clocks on floor, lots of noise/lights/colour)
33	Binge gambling
34	Can lead to desperation
35	Use money from you own business/disability money to gamble
36	Perception that the games are rigged
37	Can meet people but do not have to develop relationship
38	Emotional neglect of children
39	Fun
40	Gambling leads to anger
41	Material neglect of children
42	Deep down people don't feel good about themselves
43	Can't stop even if you want to

Item #	Concept Mapping Item
44	Meet people/ friends
45	Destroys relationships/marriages
46	Can forget worries and find peace
47	Constant highs and lows
48	Job loss
49	Financial ruin
50	Will go insane if I stop gambling
51	Anxiety
52	Can't accept losses
53	Get a gut feeling if you will win or lose
54	Gambling takes over your life
55	Debt/financial losses/bankruptcy
56	Don't want to admit you are addicted
57	Dishonesty (e.g., lie to family, at work, etc.)
58	Gambling is always on your mind (constant thoughts of it)
59	Physiologically arousing
60	Gambling relieves boredom
61	Lose friendships
62	Enjoy perks of casinos
63	Gambling can lead to suicide
64	Embezzle money from your employer
65	Thrilling to winning
66	Gambling is an escape from reality
67	Depression
68	Entertaining
69	No language barrier
70	Physiologically and mentally exhausting
71	Hide the problem from family
72	Children may be apprehended due to parental gambling
73	Stealing

Cluster Maps

We present several maps, including the separate maps as generated during male and female sorting and rating groups, as well as the researcher-generated map. Two groups were held separately, one with 9 men and another with 12 women. For all analyses involving ratings, the responses for two men and one woman were removed due to problematic data.

We first present the researcher-generated point map (Figure 1). The point map is generally the first map shown to participants so that they understand the subsequent cluster map solution. It illustrates the distance between the items, rather than the exact location of the items

on the map, and the degree of similarity between items. Items sorted together by more people appear closer on the map. For example, item 19 ("sense of failure") is very close to item 7 ("feel isolated"), but is not as similar with item 8 ("gambling increases alcohol and drug use"), which is at the top of the same cluster of numbers (see lower right corner of map).

Figure 1. Researcher-generated point map for CM-items about gambling

We shared each group's point map (Figure 2) with the group members to introduce the participants to the concept mapping output, to solicit their feedback about the organization of the items, and to facilitate subsequent dialogue about the map. These point maps provided the basis for subsequent cluster analyses. Within each sorting and rating session we employed hierarchical cluster analysis (Everitt, 1980) using data from the point map to partition the map into distinct cluster dimensions. Each cluster of items reflects a distinct conceptual dimension. Participants were engaged by the facilitator to evaluate different cluster solutions, changing the number of clusters to examine different solutions. For example, for the group of men, we began with 10

clusters moving sequentially to solutions with fewer clusters. At each step, the facilitator worked

with the male participants to determine which arrangement of clusters and their respective items

most precisely reflected participant perceptions. Each group had a good amount of time to

discuss cluster item content, arrangement and naming of the clusters.

Figure 2. Female (left) and male (right) point maps for CM-items for gambling
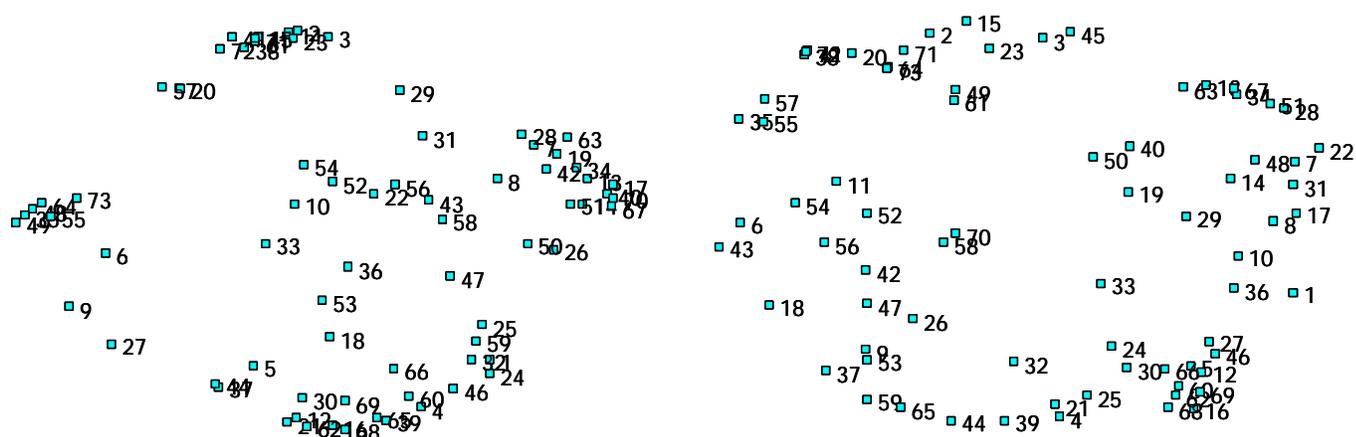
Male and Female Cluster Maps

While both men and women chose a six-cluster solution, the conceptual domains

reflected in their respective clusters were not altogether similar. Furthermore, men and women

named their clusters differently, with some overlap, but also with some interesting differences.

The six-cluster solution selected by the men includes "destruction of family and relationships",

"rock bottom/final outcome", "negative outcomes", "reasons and attractions", "lucky feelings",

and "escape from reality."

Figure 3. Map of six-cluster solution for men
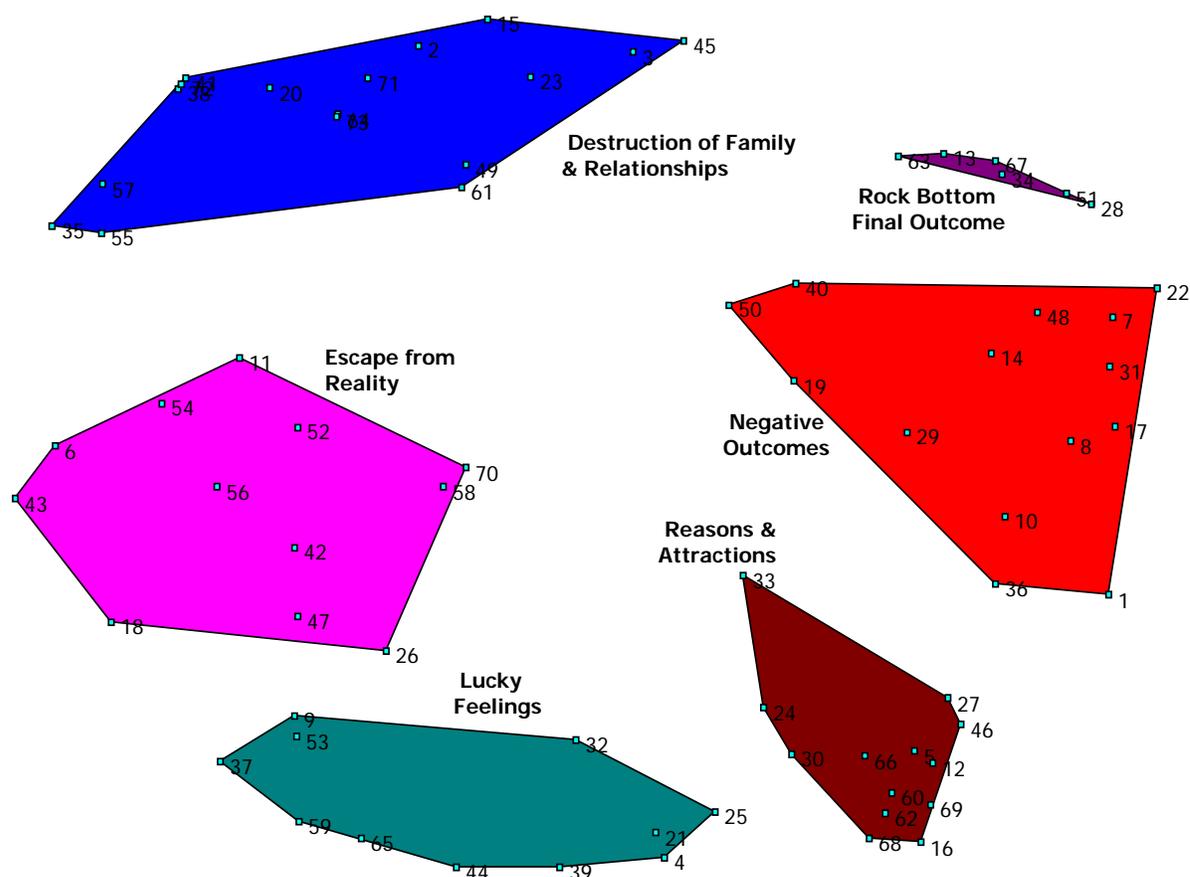
There was considerable debate among the men on items that reflected the negative

outcomes of gambling; in particular, they felt that some items especially reflected extreme

outcomes associated with problem gambling and wanted these to belong to a distinct cluster.

Items in this cluster include "depression" (item 67), "can lead to suicide" (item 63), "can lead to

desperation" (item 43), "anxiety" (item 51), "lose self-respect/self-esteem" (item 63), and

"shame" (item 28). The participants were at odds on whether the items reflected mental distress,

final outcomes or the extreme downside of gambling, but finally settled through consensus on

the cluster name, "rock bottom/final outcome." For the men, the "lucky feelings" and "reasons

and attractions" clusters captured the good feelings people get when gambling. The men believed

that while the "negative outcomes" cluster depicted negative aspects of gambling, the items also

represented a choice as to which behaviours would be continued.

Figure 4. Map of six-cluster solution for women
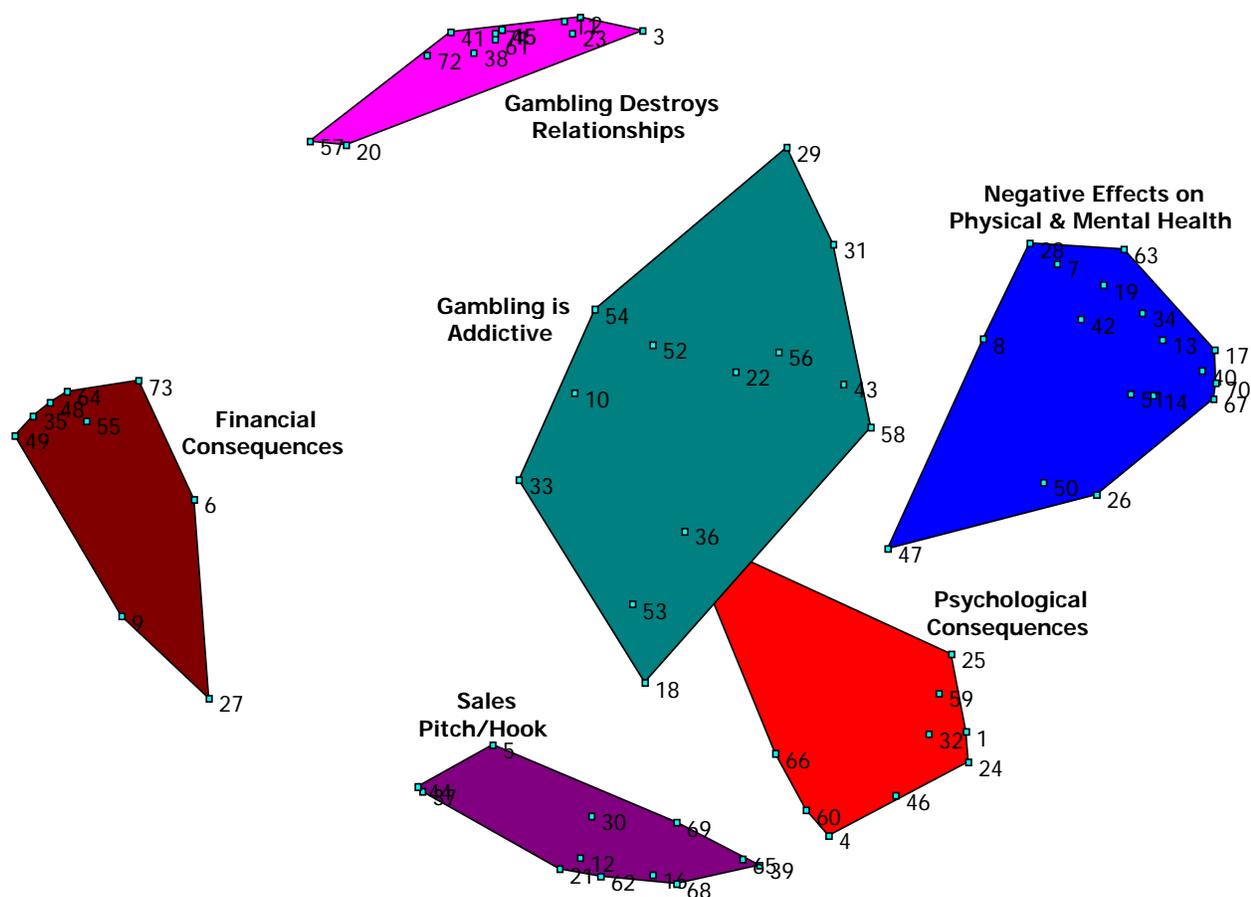
The six-cluster solution selected by the women includes "gambling destroys

relationships", "negative effects on physical and mental health", "psychological consequences",

"sales pitch/hook", "financial consequences" and "gambling is addictive" (Figure 4). The cluster

"sales pitch/hook" generated some discussion among the women. The women believed the

cluster captured the entertaining and alluring aspects of gambling, but also recognized that these

were only the perceptions of the gambler. This cluster includes such items as, gambling is a way

to "kill time" (item 30), "thrilling to win" (item 65), "enjoy perks of casinos" (item 62), "believe

the casino can be beat" (item 5), and "meet people/friends" (item 44). The women debated using "entertaining" or "speculations of a gambler" as the title, but through consensus settled on "sales pitch/hook." There was also some discussion among the women around the items in the "psychological consequences" cluster, which included "casino tricks you into thinking you can win" (item 25), "gambling relieves boredom" (item 60), "can forget worries and find peace" (item 46), "feels good like drugs and alcohol" (item 1), "hypnotic/lose sense of time" (item 32), "physiologically arousing" (item 59), "gambling reduces stress" (item 24), "gambling is an escape from reality" (item 66), "feel lucky" (item 4), and "perception that the games are rigged" (item 36).

The women debated using the cluster label "fooling ourselves" or "psychological consequences." One person made the point that there may be some bias in using the word "fool" as people DO win sometimes. Participants agreed that fooling implied some type of judgment and wanted a more neutral title; through consensus, they selected "psychological consequences" as the name for this cluster. Item 36, "perception that the game is rigged" was originally in the cluster, "gambling is addictive", but the women felt this item did not belong there. Instead, the item was moved to the "psychological consequences" cluster since it reflected the "psychological influence of gambling."

Figure 5 shows the six-cluster researcher-generated map. This map was created to provide the same clusters for men and women so as to be able to compare male and female responses to the rating questions. These ratings are used in cluster rating maps and pattern matches exploration.

Figure 5. Six-cluster solution for the researcher generated map
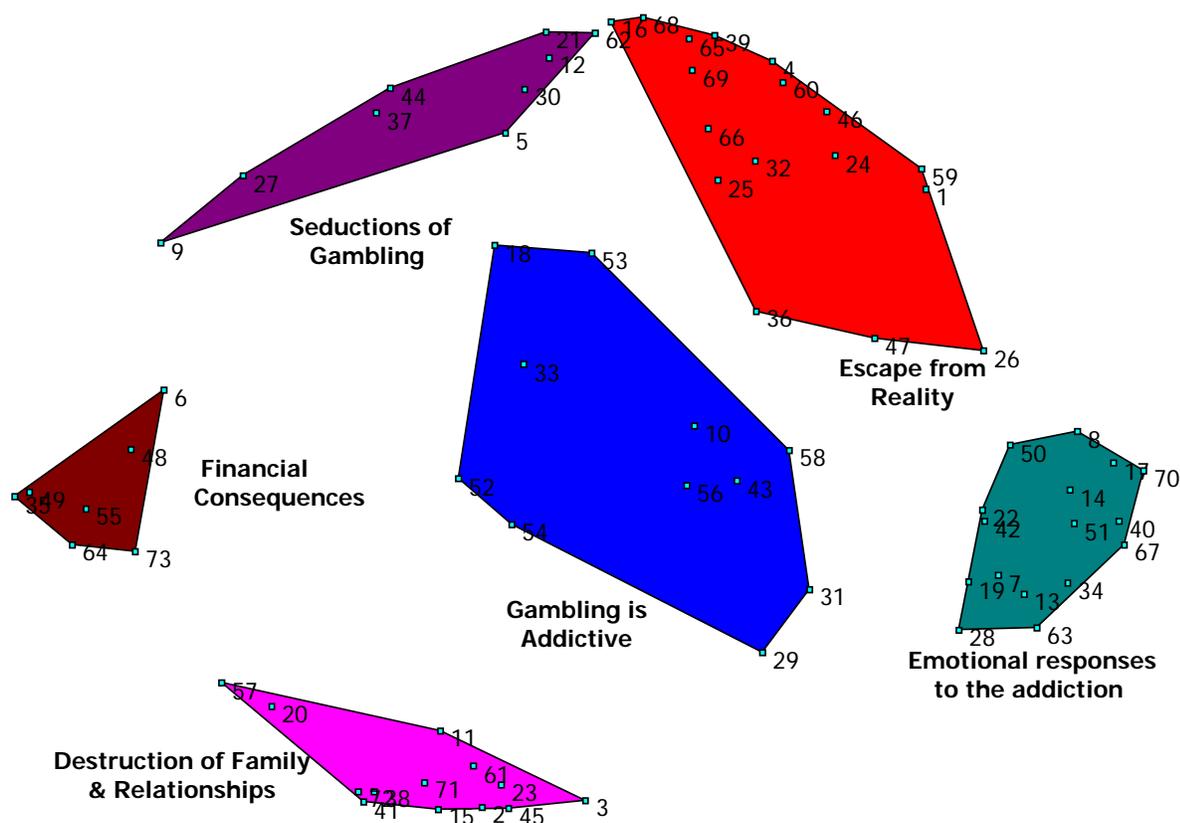
Cluster Ratings for Men and Women

Table 6 displays the refined list of 73 items that participants perceived to be related to the pleasurable aspects and negative consequences of gambling. The characteristics described by the final list of items ranged from descriptions of the psychological consequences of gambling (i.e., "relieving boredom" [item 60], "escaping reality"[item 66]) to the destruction of families and relationships (i.e., "dishonesty" [item 57], "loss of trust" [item 15], "emotional neglect of children" [item 38]). The 73 items in Appendix 3a (men) and 3b (women) are sorted into the six cluster headings from the researcher-generated map, with average ratings that indicate how strongly each item within the clusters was found to relate to each of the rating questions (see Table 2). Ratings were based on a five-point Likert-type scale ranging from 1 (Not at all) to 5

(Extremely). To facilitate interpretation, we categorized the average item ratings into percentiles:

High (70th percentile and higher), Moderate (30th to 69th percentile) and Low (below the 30th

percentile).

Table 7 and 8 highlight the items that were given High ratings across the 3 rating

questions related to the importance of each in the control of problem gambling, recovery from

problem gambling, and keeping someone from seeking help for problem gambling. The rating

questions "acquire large sums of money quickly" (item 27), "thrilling to win" (item 65) and

"gambling is an escape from reality" (item 66) were consistently rated highly by both genders.

Table 7. CM-items with high ratings (> 70th percentile) across 3 rating questions among males (n = 7)

Cluster Name	Concept Mapping Item # and Statement
Escape from Reality	26 – people use excuses/illogical reasons to gamble
	46 – can forget worries and find peace
	47 – constant highs and lows
	65 – thrilling to win
	66 – gambling is an escape from reality
Seductions of Gambling	12 – casinos make you feel important when you spend lots of money
	27 – acquire large sums of money quickly
Emotional Responses to the Addiction	7 – feel isolated
	14 – frustrated when losing
	67 – depression
Gambling is Addictive	(none)
Destruction of Family/ Relationships	15- loss of trust of family members
Financial Consequences	35 – use money from your own business/disability money to gamble

Table 8. CM-items with High ratings (>70th percentile) across three rating questions among females (*n* = 11)

Cluster Name	*Concept Mapping Item # and Statement*
Escape from Reality	65 – thrilling to win
	66 – gambling is an escape from reality
Seductions of Gambling	9 – can help resolve financial problems
	27 – acquire large sums of money quickly
Emotional Responses to the Addiction	19 – sense of failure
Gambling is Addictive	(none)
Destruction of Family/ Relationships	3 – creates rifts/conflicts in relationships
	45 – destroys relationships/marriages
	57 – dishonesty (e.g. lie to family, at work)
Financial Consequences	49 – financial ruin
	55 – debt/financial losses/bankruptcy

Gambling to "escape from reality" appeared to be particularly important for the men (most number of items with High ratings among men), and included items related to finding "excuses to gamble" (item 26), dealing with "constant highs and lows" (item 47) and gambling as a way to "forget worries and find peace" (item 46). Another group of items given High ratings by the men across the rating questions were in the "emotional responses to the addiction" cluster, including "feeling isolated, frustrated and depressed" (item 7, 67 and 19).

The female ratings highlighted one cluster – "destruction of family/relationships" – as being the most important for controlling, recovery from and seeking help for problem gambling behaviour. High ratings across the three questions were given to "creates rifts/conflicts in relationships" (item 3), "destroys relationships/marriages" (item 45) and "dishonesty (e.g., lie to

family, at work)" (item 57). Most other clusters contained High ratings for different items from the men.

Pattern Matches

Another way to understand the rating data is to use pattern matching (Figure 6, 7 and 8). These graphs show the average ratings per cluster for the researcher-generated clusters. We use these research-generated clusters so that we can compare ratings for men and women. This allows an opportunity to graphically examine the strength of the relationship between males and females on their ratings of how important each cluster of items is with respect to the rating question. The first question asked participants to rate each item on how much it represents an obstacle or barrier for a person trying to control his/her gambling.

Figure 6. Pattern match for obstacles/barriers to control gambling by gender
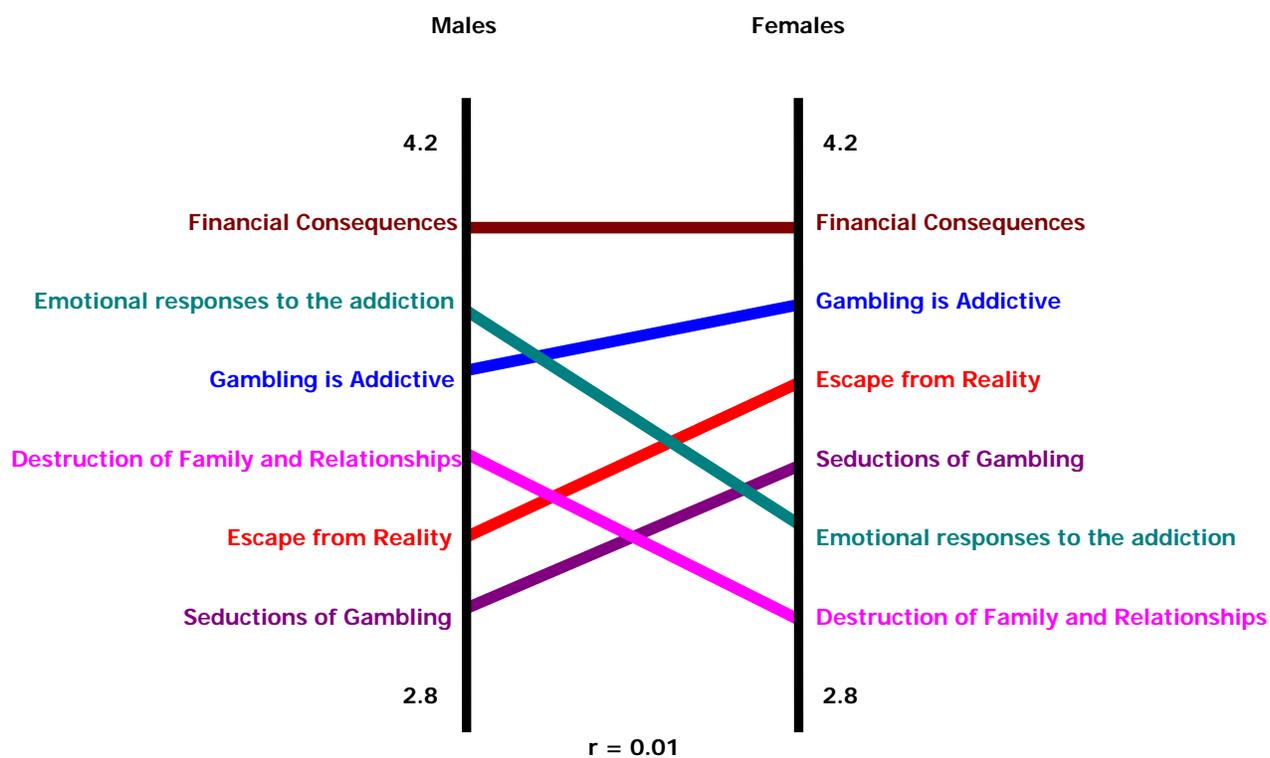
The "financial consequences" cluster was ranked High as a barrier/obstacle to controlling problem gambling among both men and women. "Emotional responses to the addiction" was ranked next highest among men followed by "gambling is addictive", which was the second most important cluster among women followed by "escape from reality." The Pearson product moment correlation ("r") that provides the overall strength of the correlation between men and women on this rating question was almost zero, indicating little agreement on the importance of the items.

Figure 7. Pattern match for interference with recovery by gender
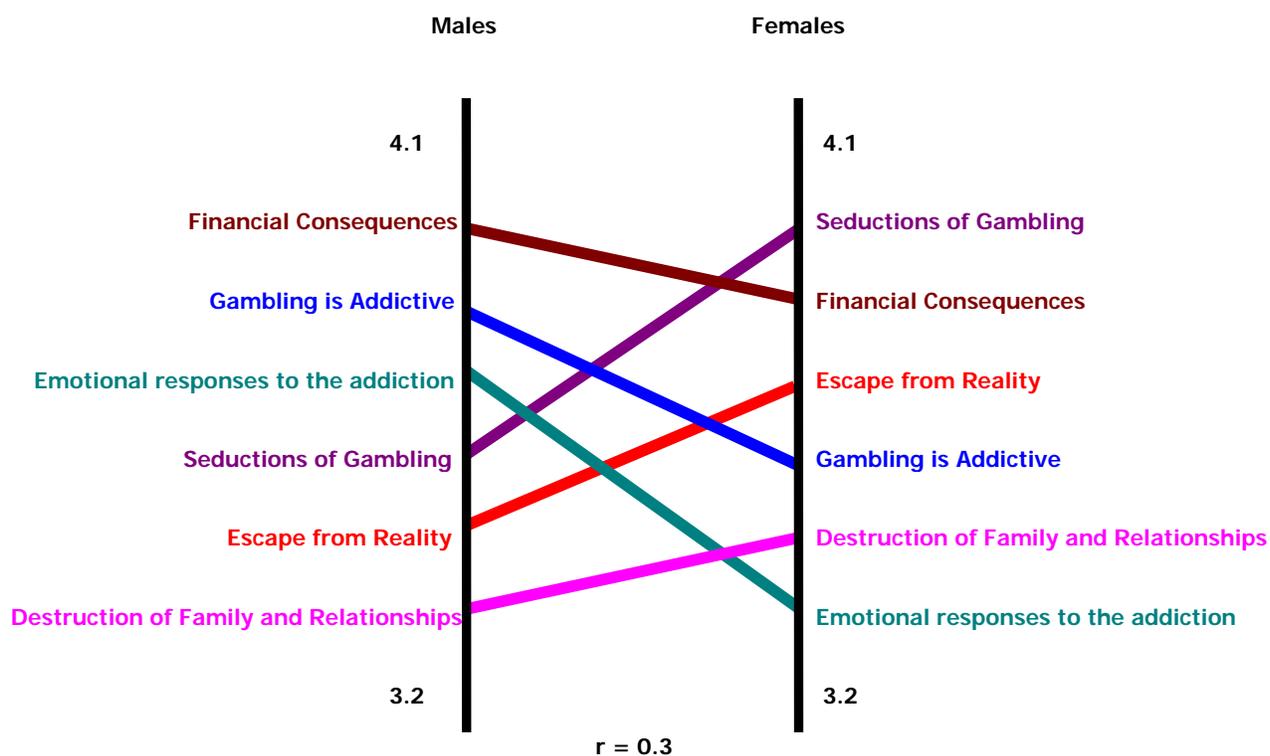
Figure 7 shows ratings contrasted in pattern matching among men and women on the extent to which the clusters in the combined map interfere with recovery when a person has trouble controlling his/her gambling. The correlation on this rating among men and women was Moderate at 0.3. Among men, "financial consequences" was rated of highest importance on

interference with recovery. This was followed by the clusters, "gambling is addictive" and "emotional responses to the addiction." For men, the items in the cluster titled "destruction of family and relationships" were rated lowest with respect to recovery. Among women, "seductions of gambling" was rated highest with respect to interference with recovery followed by "financial consequences" and "escape from reality."

Figure 8. Pattern match for interference with help-seeking due to stigma by gender
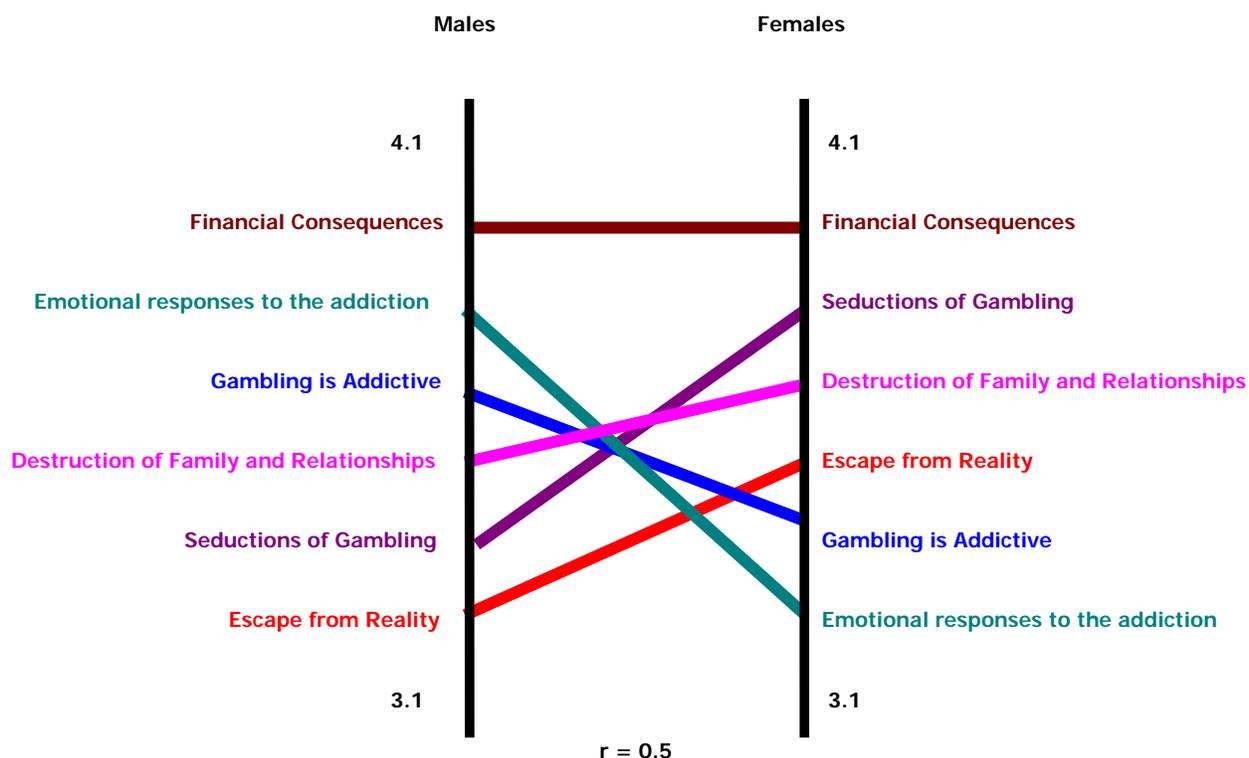
Figure 8 shows ratings contrasted in pattern match among men and women for the extent to which the clusters in the combined map interfered with help-seeking when a person has trouble controlling their gambling. This rating question asked participants to rate the items with the idea that stigma may have an impact on help-seeking and affect help-seeking behaviour. There was a moderate correlation ($r = 0.5$) between how men and women rated the concepts. For example, the "financial consequences" cluster was rated High among both genders. Men rated

"emotional responses to the addiction" as the next strongest concept that interfered with help-seeking, followed by "destruction of relationships." In contrast, after "financial consequences" women rated "seductions of gambling" as problematic, followed by "escape from reality" (this was rated the lowest among men).

Concept Mapping Item Comparison with Gambling Screeners

Table 9 shows the comparison of the 73 CM-items with the questions within the SOGS, CPGI, DSM-IV and VGS (see Appendix 2 for each screener). The columns under each of the gambling screeners provide the question numbers in the screeners that are comparable matches to the CM-items. For example, CM-item 17, "get physical pain when you lose (feel sick)", was matched to question 16 in the CPGI ("How often has gambling caused you any health problems, including stress or anxiety?"). The CM-item and question match is not exact, but rather represents the essence of the particular problem.

Forty of the CM-items were captured in at least one screener. Five CM-items were captured by all 4 screeners; 12 were captured in 3 screeners; 5 were captured in 2 screeners; and 18 were captured in only 1 screener. We were particularly interested in items not captured in any of the screeners. Thirty-three of the CM-items had no match to questions in any of the screeners (shown at the top of Table 8). The non-captured items are presented again in Table 10 by their ratings with problem gambling. Recall that these ratings emerged out of the sorting and rating groups and reflect participant ratings of the problem gambling question shown in Table 2 on obstacles and barriers to controlling their gambling behaviour. These ratings were based on a five-point Likert-type scale ranging from 1 (Not at all an obstacle) to 5 (Extremely an obstacle).

To facilitate interpretation, we categorized the average item ratings into High (70th percentile and higher), Moderate (30th to 69th percentile) and Low (below the 30th percentile) for

men and women. Among men, 10 items that were not captured in the gambling screeners were rated highly as obstacles to curbing gambling behaviour: "believe the casino can be beat" (item 5), "feel isolated" (item 7), "casinos make you feel important when you spend lots of money" (item 12) "frustrated when losing" (item 14) "uplifting environment" (item 21), "people use excuses or illogical reasons to gamble" (item 26), "acquire large sums of money quickly" (item 27), "blame others for losing" (item 29), "constant highs and lows" (item 47) and "physiologically arousing" (item 59). Of these 10 items, women rated all as highly problematic obstacles except for three items: "feel isolated" (item 7), "casinos make you feel important when you spend lots of money" (item 12) and "constant highs and lows" (item 47). Women rated one additional item as problematic that was rated of Moderate importance to men: "can help resolve your financial problems" (item 9).

In the comparisons of the CM-items and the screener questions we also checked to see how many of the questions in each screener were represented in the final 73 CM-items. Ninety-five percent ($n = 19$) of the questions in the SOGS were reflected in the CM-items, 48% ($n = 16$) of the questions in the CPGI were reflected in CM-items, 89% ($n = 9$) of the Problem Gambling Severity Index (PGSI) of the CPGI were reflected in the CM-items, 71% of the VGS questions were reflected in the CM-items, and 80% of the DSM-IV questions were reflected in the CM-items.

Table 9. Comparison of 73 CM-items with four prominent problem/pathological screeners

CM Item #	Concept Mapping Item	South Oaks (SOGS)	Canadian (CPGI)	Victorian (VGS)	DSM-IV
1	Feels good like drugs and alcohol				
2	The severity of the problem is a shock for families				
4	Feel lucky				
5	Believe the casino can be beat				
7	Feel isolated				
9	Can help resolve your financial problems				
10	Gambling is a worse addiction because you don't get sick like with drugs or alcohol				
11	Feel pressure from spouse/friends to gamble				
12	Casinos make you feel important when you spend lots of money				
14	Frustrated when losing				
16	Receive VIP treatment				
21	Uplifting environment				
22	Gambling is like alcoholism				
25	Casino tricks you into thinking you can win				
26	People use excuses or illogical reasons to gamble				
27	Acquire large sums of money quickly				
29	Blame others for losing				
30	Gambling is a way to kill time				
31	Blame ourselves for the loss				
32	Hypnotic/lose sense of time (no clocks on floor, lots of noise/lights/colour)				
33	Binge gambling				
36	Perception that the games are rigged				
37	Can meet people but do not have to develop relationship				
40	Gambling leads to anger				
41	Material neglect of children				
44	Meet people/ friends				
47	Constant highs and lows				
53	Get a gut feeling if you will win or lose				
59	Physiologically arousing				
60	Gambling relieves boredom				
62	Enjoy perks of casinos				
69	No language barrier				
70	Physiologically and mentally exhausting				
3	Creates rifts/conflicts in relationships	13		16 & 17	9
6	Continue to gamble to cover losses	4	9	7	6
8	Gambling increases alcohol and drug use		24,25		
13	Lose self respect/self esteem	9	15	11	
15	Loss of trust of family members			18	9
17	Get physical pain when you lose (feel sick)		16		
18	Use gambling as a way to cope		27	10	5
19	Sense of failure	9	15	11	

CM Item #	Concept Mapping Item	South Oaks (SOGS)	Canadian (CPGI)	Victorian (VGS)	DSM-IV
20	Use money meant for family	14 & 16	10		
23	Anger from families	8	14	13	
24	Gambling reduces stress		27	10	5
28	Shame	9	15	11	
34	Can lead to desperation		32,33		
35	Use money from you own business/disability money to gamble	14 & 16	10		
38	Emotional neglect of children				9
39	Fun		8		
42	Deep down people don't feel good about themselves	9	15	11	
43	Can't stop even if you want to	7 & 10	7 & 13	5	3
45	Destroys relationships/marriages				9
46	Can forget worries and find peace		27	10	5
48	Job loss				9
49	Financial ruin		17		
50	Will go insane if I stop gambling				4
51	Anxiety		16		
52	Can't accept losses	4	9	7	6
54	Gambling takes over your life	15		6	1
55	Debt/financial losses/bankruptcy	14 & 16	6 & 17	19	
56	Don't want to admit you are addicted			9	
57	Dishonesty (e.g., lie to family, at work, etc.)	5 & 11	11	14 & 15	7
58	Gambling is always on your mind (constant thoughts of it)			8	1
61	Lose friendships				9
63	Gambling can lead to suicide		32,33		
64	Embezzle money from your employer				8
65	Thrilling to winning		8		
66	Gambling is an escape from reality		27	10	5
67	Depression		16		
68	Entertaining		8		
71	Hide the problem from family	11	11	14 & 15	7
72	Children may be apprehended due to parental gambling				9
73	Stealing			21	8

Table 10. Ratings on the extent to which CM-items not in screeners are obstacles/barriers to controlling gambling behaviour

Item #	Item Description	Problem Gambling Rating	
		Men	**Women**
5	Believe the casino can be beat	High	High
7	Feel isolated	High	Moderate
12	Casinos make you feel important when you spend lots of money	High	Moderate
14	Frustrated when losing	High	High
21	Uplifting environment	High	High
26	People use excuses or illogical reasons to gamble	High	High
27	Acquire large sums of money quickly	High	High
29	Blame others for losing	High	High
47	Constant highs and lows	High	Moderate
59	Physiologically arousing	High	High
1	Feels good like drugs and alcohol	Moderate	Moderate
2	The severity of the problem is a shock for families	Moderate	Moderate
4	Feel lucky	Moderate	Moderate
9	Can help resolve your financial problems	Moderate	High
10	Gambling is a worse addiction because you don't get sick like with drugs or alcohol	Moderate	Low
22	Gambling is like alcoholism	Moderate	Moderate
25	Casino tricks you into thinking you can win	Moderate	Moderate
32	Hypnotic/lose sense of time (no clocks on floor, lots of noise/lights/colour)	Moderate	Moderate
36	Perception that the games are rigged	Moderate	Low
37	Can meet people but do not have to develop relationship	Moderate	Low
40	Gambling leads to anger	Moderate	Low
44	Meet people/ friends	Moderate	Low
53	Get a gut feeling if you will win or lose	Moderate	Moderate
60	Gambling relieves boredom	Moderate	Moderate
70	Physiologically and mentally exhausting	Moderate	Moderate
11	Feel pressure from spouse/friends to gamble	Low	Low
16	Receive VIP treatment	Low	Moderate
30	Gambling is a way to kill time	Low	Moderate
31	Blame ourselves for the loss	Low	Low
33	Binge gambling	Low	Low
41	Material neglect of children	Low	Low
62	Enjoy perks of casinos	Low	Moderate
69	No language barrier	Low	Low

Discussion

The public health approach views gambling within the context of a multi-level health promotion framework that recognizes that there are social costs and benefits to gambling. The social costs of gambling include gambling addiction, family dysfunction, youth gambling, substance abuse, arrested child development and domestic violence (Korn, 2000). But, gambling also has benefits through the reduction of social isolation in vulnerable groups (e.g., elderly), positive group socialization and interpersonal connectedness, low-risk wagering for fun, and providing social outlets to manage stressful life circumstances.

Gender differences in gambling behaviour can be explored within the public health model with specific focus on the social attractions and consequences of gambling. This pilot study asked community members to reflect on the negative consequences and positive aspects of gambling. The unique approach of concept mapping was utilized to gather data from information-rich participants. The maps generated through concept mapping provide a look at the differences and similarities in the conceptual frameworks of male and female gamblers. This is important as it points to the specific conceptual domains of gambling that are dominant among men and women.

While concept mapping is semi-quantitative it is meant to generate conceptual frameworks in small samples, as was the case in this study. As such, our findings are not intended to be generalizable in the traditional sense. Our sample was thus not representative of the general population of gamblers or problem gamblers. It was a purposive sample of participants who volunteered for the study. While self-selection often is viewed as problematic since the sample(s) may not be representative of the populations of interest, this was not the aim of the pilot study. Our specific aim was to engage information-rich cases to better understand

gambling behaviour, attitudes and beliefs. While it is true that the specific individuals who participate may limit the breadth and depth of the conceptualizations that emerge from the concept mapping process, we were specifically interested in perceptions of gambling from those who were in some way engaged in gambling culture either directly or indirectly; as such, our sampling strategy was appropriate. The cluster domains generated might have differed with a more representative sample of social and problem gamblers. For example, the relatively advanced age of our participants may have influenced the types of items generated in response to the focal topic and the cluster solutions; however, this was designed to be a pilot project to lay the groundwork for new methodological and analytical procedures in the field of gambling specifically with a gendered focus. Our participants generated 413 items items on gambling which the research team narrowed down to 73 items.. These items reflected what our participants felt were the negative consequences and positive aspects of gambling. There were no real surprises in the actual items generated, as many of these have been identified in previous studies (Lesieur & Rosenthal, 1991). What is unique were the conceptual domains identified by male and female gamblers in the concept mapping exercise. While financial consequences and problems with relationships were similar themes for men and women, there were some interesting differences. For example, men identified a small, but conceptually distinct cluster that reflected serious mental health problems associated with gambling: "depression" (item 67), "gambling can lead to suicide" (item 63), "can lead to desperation" (item 34), "anxiety" (item 51), "lose self-respect/self-esteem" (item 13) and "shame" (item 28). Women combined many of these items under a general concept of "negative effects on physical and mental health," which incorporated a large number of items. Men also identified a dimension reflecting superstitions and cognitive distortions which they entitled, "lucky feelings." Women included these in a larger

cluster of items labelled "psychological consequences." Men also identified a separate cluster that reflected "escape from reality," which included items like "can't accept losses" (item 52) and "gambling takes over your life" (item 54). Women defined one of their clusters as the "sales pitch/hook." This cluster reflected the attractions of the venue ("receive VIP treatment") and the social aspect of gambling ("meet people/friends").

The pattern matches that were based upon the researcher-generated map provide some insight into the dimensions of gambling that are particularly problematic obstacles for the control of gambling behaviour, for recovery from and seeking help for gambling problems. Other than "financial consequences," which was important for controlling gambling among both men and women, males rated "emotional responses to gambling" as the next most problematic cluster of items, but for women the next most problematic cluster after "financial consequences" was "gambling is addictive." For obstacles that interfered with recovery, men still rated "financial consequences" as the most problematic, but the next cluster of most concern was "gambling is addictive." For women, the "seductions of gambling" cluster was rated the most problematic for recovery. "Financial consequences" also were important among men and women with respect to help-seeking. Men again rated "emotional responses to gambling" as the next cluster of serious concern when relating the items to help-seeking. Women rated the "seductions of gambling" as the most serious concern around help-seeking after "financial consequences." So, it would seem that men and women may have particular trouble with different behavioural domains when it comes to controlling their gambling behaviour, in recovery from, and seeking help for gambling problems.

Taking a closer look at the ratings within these clusters from the researcher-generated map, problematic obstacles can be found at the individual item level that also point to similarities

and differences between genders. Similar to the pattern matches, cluster rating analysis for the men found that several items within "emotional responses to gambling" were consistently rated as High across the three rating questions: "feel isolated" (item 7), "frustrated when losing" (item 14) and "depression" (item 67). However, the most number of High ratings given by the men went to items within the "escape from reality" cluster: "people use excuses/illogical reasons to gamble" (item 26), "can forget worries and find peace" (item 47), "constant highs and low" (item 47), "thrilling to win" (item 65) and "gambling is an escape from reality" (item 66). For the women, items within the "destruction of family and relationships" cluster were given the most number of High ratings across the three rating questions: "creates rifts/conflicts in relationship" (item 3), "destroys relationship/marriages" (item 45) and "dishonesty (e.g., lie to family, at work" (item 57). Other clusters – "seductions of gambling" and "financial consequences" – also contained a few items that were consistently given High ratings as obstacles to controlling gambling behaviour, to recovery from and seeking help for problem gambling for the women.

For the most part, the majority of the questions in the gambling screeners were captured in the CM-items. We did find that 33 of the CM-items were not captured in the screener questions. Of these, 10 items were rated as highly problematic in relation to curbing gambling behaviour. While this potentially points to behaviours/beliefs that might be targeted in public health education and interventions, subsequent work on the part of the investigators will look more deeply into these details.

Future Research Directions

Several themes emerge from this study that will help to inform future research. The first theme relates to the idea that there may be gender differences in the dimensions of gambling that

are particularly problematic obstacles for the control of and recovery from gambling behaviour and for help-seeking. Our findings suggest that men and women differ in their motivations for and persistence in problem gambling. For example, while financial consequences were salient for both men and women, among men "emotional responses to gambling" seemed to be a problematic dimension and "seductions of gambling" seemed to be of particular issue among women. These differences may have important implications for the identification of men and women who are vulnerable to problematic gambling behaviour and to gender-specific treatment approaches.

A second important theme that emerged from the findings is that our participants identified some items related to the negative consequences and positive aspects of gambling that are not specifically addressed in the current and most widely applied gambling screeners. More detailed analysis needs to be completed on this aspect of the findings to understand how these items and their respective cluster dimensions might augment the current screeners or be used to construct a new screener that captures more diverse conceptual domains. In an effort to gain a clearer conception of how these currently untapped items and their respective conceptual dimensions relate to the process of developing problematic gambling, we would like to return to a small group approach with those in the "gambling community" and have participants discuss their understanding of the pathways through which items and clusters of items are related to problem gambling, to recovery and to help-seeking. In this way, we could better understand the pathways that lead to problems and those that might be detriments to recovery and help-seeking.

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Appendix 1. Quantitative Survey

Participant Questionnaire

Gender and perceptions of gambling: a pilot project using concept mapping."

Please check / circle the appropriate answer or fill in the blank as required.

Name: _____

Date: _____

1. Please indicate your gender:

    a. Male

    b. Female

    c. Transgender

2. What is your age: _____.

3. What is your current marital/relationship status? You may select more than one.

    a. Married

    b. Common-law

    c. Partnered

    d. Single (never married)

    e. Widowed

    f. Separated

    g. Divorced

4. What is your current level of education? Here primary refers to grades 1 to 8 and secondary refers to grades 9 to 12.

    a. No formal education

    b. Some primary

    c. Completed primary

    d. Some secondary

    e. Completed secondary

    f. Some college

    g. Completed college

    h. Some university

     i. Completed university

     j. Graduate or professional degree (lawyer, engineer, scientist…)

5.   What is your current working status? You may select more than one.

    a. Full time paid work

    b. Part-time paid work

    c. Unemployed

    d. Volunteer

    e. Student

    f. Disabled

    g. Homemaker

    h. Retired

    i. Income assistance

6.   What is your occupation/previous occupation (e.g., Job Type such as Carpenter, Lawyer, Labourer, Accountant, etc.)?

_____

7.   Please write in the letter that refers to your approximate household income:_____

    a. Less than $20,000

    b. $20,001 to $40,000

    c. $40,001 to $60,000

    d. $60,001 to $80,000

    e. $80,001 to $100,000

    f. $100,001 to $200,000

    g. More than $200,000

8.   How many dependent children (less than 18 years of age) do you have and what are their ages?

_____ (Number of children)

_____ _____ _____ _____ _____ _____ _____ _____ _____

9. In what country were you born? _____

10. If born outside Canada, how long have you lived in Canada? _____

11. Which cultural or ethnic group do you identify with?

1. Canadian	19. African
2. Aboriginal	20. USA
3. French	21. Arab
4. English	22. Black
5. German	23. Caribbean
6. Scottish	24. Central American
7. Irish	25. Eastern European
8. Italian	26. Greek
9. Ukrainian	27. Japanese
10. Dutch	28. Korean
11. Chinese	29. Vietnamese
12. Jewish	30. South East Asian
13. East Indian	31. South American
14. Hungarian	32. Spanish
15. Polish	33. Lebanese
16. Portuguese	34. Persian
17. Metis	35. Other (please specify) _____
18. Maltese	36. Unknown

12. Gambling is often defined as risking money for the possibility of gain with an uncertain outcome. People bet money and gamble on many different things including buying lottery tickets, playing bingo, or card games with their friends. Below is a list of some activities that you might have bet money on. Please place a check mark by each of the activities that you participated in during the last 12 months.

___ Bought lottery tickets like the 649, Super 7, or POGO.

___ Bought daily lottery tickets like Pick 3.

___ Bought instant win or scratch tickets like Cash for Life, Instant Crossword, Instant Bingo, The Price is Right, Instant Keno, etc.

___ Bought raffle or fundraising tickets.

___ Bet on horse races (e.g., live at the track and/or off-track).

___ Bet on dog races (e.g., live at the track and/or off-track).

___   Played bingo (e.g., online or at a bingo hall).

___   Gambled at any type of casino including illegal or charity casinos.

___   Bet or spent money on coin slot machines or Video Lottery Terminals (VLTs) in a casino.

___   Played poker in a casino.

___   Played blackjack in a casino.

___   Played roulette in a casino.

___   Played keno in a casino.

___   Played craps in a casino.

___   Played video lottery terminals (VLTs)

___   Played a sports lottery like Sport Select (e.g., Pro Line, Over/Under, Point Spread).

___   Bet or spent money on sports pools.

___   Bet on cards or board games with family or friends.

___   Bet or spent money on games of skill such as pool, bowling, or darts.

___   Bet on arcade or video games.

___   Gambled on the Internet.

___   Bet on sports with a bookie.

___   Personally invested in stocks, options, or commodities markets, not including mutual funds or RRSPs.

___   Other (please specify):

_____

_____

13. Thinking about the gambling activities listed in Question 10 would you describe yourself as a _____.

    1. Non-gambler

    2. Infrequent gambler (less than two times per month)

    3. Frequent gambler (e.g., two or more times per month)

    4. Problem gambler

    5. Recovered problem gambler.

14. If you are a recovered problem gambler please specify when you cut down or quit:_____(date)

15. If you are a recovered problem gambler please indicate whether the recovery was with or without treatment:

   a. With treatment

   b. Without treatment

16. What do you think are the major reasons why problem gamblers seek help from a problem gambling service? (circle as many numbers as apply)

   a. Pressured by family member

   b. Pressured by partner

   c. Referred by courts/legal system

   d. Hit rock bottom financially/ran out of money

   e. Hit rock bottom emotionally/suicidal

   f. Life choice

   g. To improve family and/or social relations

   h. Other (please specify)

   _____

   _____

17. Why do you think some problem gamblers do not seek help from a problem gambling service? (circle as many numbers as apply)

   a. Gambling now under control

   b. Want to keep gambling

   c. Want to deal with it by themselves

   d. Not ready for counseling

   e. Don't want to go to counseling (i.e. don't like concept)

   f. Hard to access service

   g. Other (please specify)

   _____

   _____

Appendix 2a. South Oaks Gambling Screen (SOGS)

Name: _____ **Date:**_____

1. Please indicate which of the following types of gambling you have done in your lifetime. For each type, mark one answer: "**Not at All**," "**Less than Once a Week**," or "**Once a Week or More**."

PLEASE "√" ONE ANSWER FOR EACH STATEMENT:	NOT AT ALL	LESS THAN ONCE A WEEK	ONCE A WEEK OR MORE
a. Played cards for money			
b. Bet on horses, dogs, or other animals (at OTB, the track or with a bookie)			
c. Bet on sport (parlay cards, with bookie at Jai Alai)			
d. Played dice games, including craps, over and under or other dice games			
e. Went to casinos (legal or otherwise)			
f. Played the numbers or bet on lotteries			
g. Played bingo			
h. Played the stock and/or commodities market			
i. Played slot machines, poker machines, or other gambling machines			
j. Bowled, shot pool, played golf, or some other game of skill for money			
k. Played pull tabs or "paper" games other than lotteries			
l. Some form of gambling not listed above (please specify: _____)			

2. What is the largest amount of money you have ever gambled with on any one-day?

_____ Never gambled   _____More than $100.00 up to $1,000.00

_____ $1.00 or less   _____ More than $1,000.00 up to $10,000.00

_____ More than $1.00 up to $10.00   _____ More than $10,000.00

_____ More than $10.00 up to $100.00

3. Check which of the following people in your life has (or had) a gambling problem.

_____ Father   _____ Mother

_____ Brother/Sister   _____ My Spouse/Partner

_____ My Child(ren)   _____ Another Relative

_____ A Friend or Someone Important in My Life

4. When you gamble, how often do you go back another day to win back money you have lost?

    _____ Never   _____ Most of the Times I Lose

    _____ Some of the Time   _____ Every Time I Lose
    (less than half the time I lose)

5. Have you ever claimed to be winning money gambling, but weren't really? In fact, you lost?

    _____ Never

    _____ Yes, less than half the time I lost

    _____ Yes, most of the time

6. Do you feel you have ever had a problem with betting or money gambling?

    _____ No   _____ Yes   _____ Yes, in the past, but not now

7. Did you ever gamble more than you intended to?   _____ Yes _____ No

8. Have people criticized your betting or told you that you had a
    problem, regardless of whether or not you thought it was true?_____ Yes   _____ No

9. Have you ever felt guilty about the way you gamble, or what
    happens when you gamble?   _____ Yes _____ No

10. Have you ever felt like you would like to stop betting money
    on gambling, but didn't think you could?   _____ Yes _____ No

11. Have you ever hidden betting slips, lottery tickets, gambling
    money, IOUs, or other signs of betting or gambling from your
    spouse, children or other important people in your life?   _____ Yes _____No

12. Have you ever argued with people you live with over how you
    handle money?   _____ Yes _____ No

13. (If you answered "Yes" to question 12) Have money arguments
    ever centered on your gambling?   _____ Yes _____ No

14. Have you ever borrowed from someone and not paid them back
    as a result of your gambling?   _____ Yes _____ No

15. Have you ever lost time from work (or school) due to betting
    money or gambling?   _____ Yes _____ No

16. If you borrowed money to gamble or to pay gambling debts, who

or where did you borrow from (check "Yes" or "No" for each):

a. From household money   _____ Yes   _____ No

b. From your spouse   _____ Yes   _____ No

c. From other relatives or in-laws   _____ Yes   _____ No

d. From banks, loan companies, or credit unions   _____ Yes   _____ No

e. From credit cards   _____ Yes   _____ No

f. From loan sharks   _____ Yes   _____ No

g. You cashed in stocks, bonds or other securities   _____ Yes   _____ No

h. You sold personal or family property   _____ Yes   _____ No

i. You borrowed on your checking accounts (passed bad checks) _____ Yes   _____ No

j. You have (had) a credit line with a bookie   _____ Yes   _____ No

k. You have (had) a credit line with a casino   _____ Yes   _____ No

South Oaks Gambling Screen– Score Sheet
(SOGS)

Scores on the SOGS are determined by scoring one point for each question that shows the "at risk" response indicated and adding the total points.

Question		
Question 1	__X__	Not counted
Question 2	__X__	Not counted
Question 3	__X__	Not counted
Question 4	_____	Most of the time I lose or Yes, most of the time
Question 5	_____	Yes, less than half the time I lose or Yes, most of the time
Question 6	_____	Yes, in the past but not now or Yes
Question 7	_____	Yes
Question 8	_____	Yes
Question 9	_____	Yes
Question 10	_____	Yes
Question 11	_____	Yes
Question 12	__X__	Not counted
Question 13	_____	Yes
Question 14	_____	Yes
Question 15	_____	Yes
Question 16 a	_____	Yes
Question 16 b	_____	Yes
Question 16 c	_____	Yes
Question 16 d	_____	Yes
Question 16 e	_____	Yes
Question 16 f	_____	Yes
Question 16 g	_____	Yes
Question 16 h	_____	Yes
Question 16 i	_____	Yes
Question 16 j	__X__	Not counted
Question 16 k	__X__	Not counted

TOTAL
POINTS: _____
(Maximum score = 20)

INTERPRETING THE
SCORE: 0 No problem with gambling
1-4 Some problems with gambling
5 or more Probable pathological gambler

Appendix 2b. Canadian Problem Gambling Index (CPGI)

For each of the items in the CPGI questionnaire, respondents are asked to respond "in the past twelve (12) months." This past-year time frame does not apply to the following questions: 18, 19, 20, 21, 22, and 23. The response scales for each of the questionnaire items are as follows

Question 1 -   yes; no

Question 2 -   daily; 2-6 times/week; about once/week; 2-3 times/month; about once/month; between 6-11 times/year; between 1-5 times/year; never in the past year

Question 3 -   record actual minutes and/or hours

Questions 4 & 5 -   record actual dollar amount

Questions 5 to 17 -   never; sometimes; most of the time; almost always

Questions 18 & 19 –   strongly agree; agree; disagree; strongly disagree

Questions 20 to 33 -   yes; no

DOMAIN	VARIABLES	INDICATORS	ITEMS AND QUESTION NUMBERS
	Type	Gambling activities	1. Have you bet or spent money on (list of gambling activities)?
Gambling Involvement	Frequency	Frequency of play	2. How often did you bet or spend money on (list activity: daily, weekly, monthly, yearly)?
	Duration	Time at play/type/session	3. When spending money on (list activity), how many minutes/hours do you normally spend each time?
	Expenditure	Money wagered monthly Largest amount wagered	4. How much money, not including winnings, did you spend on (list activity) in a typical month? 5. What is the largest amount of money you ever spent on (list activity) in any one day?
	Loss of control	Bet more than could afford	6. How often have you bet more than you could really afford to lose?
		Bet or spent more than wanted to	7. How often have you bet or spent more money than you wanted to on gambling?
	Motivation	Increase wagers	8. How often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
Problem Gambling Behavior	Chasing	Returning to win back losses	9. How often have you gone back another day to try to win back the money you lost?
	Borrowing	Borrow money or sold anything	10. How often have you borrowed money or sold anything to get money to gamble?
	Lying	Lied to family members or others	11. How often have you lied to family members or others to hide your gambling?

DOMAIN	VARIABLES	INDICATORS	ITEMS AND QUESTION NUMBERS
	Problem recognition	Felt problem	12. How often have you felt that you might have a problem with gambling?
		Wanted to stop, didn't think could	13. How often have you felt like you would like to stop betting money or gambling, but you didn't think you could?
	Personal Consequences	Criticism	14. How often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
Adverse Consequences		Feelings of guilt	15. How often have you felt guilty about the way you gamble or what happens when you gamble?
		Negative health effects	16. How often has gambling caused you any health problems, including stress or anxiety?
	Social Consequences	Financial problems	17. How often has your gambling caused any financial problems for you or your household?
	Faulty cognition	Due for a win after losses	18. After losing many times in a row, you are more likely to win.
		Having a winning system	19. You could win more if you use a certain system or strategy.
Problem Gambling Correlates	First experiences	Remember a big win	20. Do you remember a big WIN when you first started gambling?
		Remember big loss	21. Do you remember a big LOSS when you first started gambling?
	Family problems	Family gambling problem	22. Has anyone in your family EVER had a gambling problem?
		Family alcohol or drug problem	23. Has anyone in your family EVER had an alcohol or drug problem?
	Co-Morbidity	Gamble, drugs, alcohol	24. Have you used alcohol or drugs while gambling?
		Gamble when high	25. Have you gambled while drunk or high?
	Problem recognition	Felt alcohol/drug problem	26. Have you felt you might have an alcohol or drug problem?
	Relieve pain	Self-medication (gambling)	27. If something painful happened in your life, did you have the urge to gamble?
		Self-medication (alcohol)	28. If something painful happened in your life, did you have the urge to have a drink?
		Self-medication (drugs)	29. If something painful happened in your life did you have the urge to use drugs or medication?
	Stress	Treated for stress	30. Have you been under a Dr's care because of physical or emotional problems brought on by stress?
	Depression	Feelings of depression	31. Was there ever a time when you felt depressed for two weeks or more in a row?
	Suicide	Suicide ideation	32. Have you ever seriously thought about committing suicide as a result of your gambling?
		Suicide attempts	33. Have you ever attempted suicide as a result of your gambling?

Appendix 2c. The Victorian Gambling Screen (VGS)

Please answer using the scale: (Read out)

"Never, rarely, sometimes, often, always."

"Your answers will be for the last 12 months."

"So in the last 12 months…"

Interviewer note: DO NOT PROMPT FOR CAN'T SAY OR NOT APPLICABLE.

For all scale questions, if respondent answers no code as never = 0.

		Never	Rarely	Sometimes	Often	Always	Can't say	N/A
Q1	Has gambling been a good hobby for you?	0	1	2	3	4	5	6
Q2	Nowadays, when you gamble, is it fun?	0	1	2	3	4	5	6
Q3	Have you gambled with skill?	0	1	2	3	4	5	6
Q4	Nowadays, when you gamble, do you feel as if you are on a slippery slope and can't get back up again?	0	1	2	3	4	5	6
Q5	Has your need to gamble been too strong to control?	0	1	2	3	4	5	6
Q6	Has gambling been more important than anything else you might do?	0	1	2	3	4	5	6
Q7	Have you felt that after losing you must return as soon as possible to win back any losses?	0	1	2	3	4	5	6
Q8	Has the thought of gambling been constantly in your mind	0	1	2	3	4	5	6
Q9	Have you lied to yourself about your gambling?	0	1	2	3	4	5	6
Q10	Have you gambled in order to escape from worry or trouble?	0	1	2	3	4	5	6
Q11	Have you felt bad or guilty about your gambling?	0	1	2	3	4	5	6
Q12	Have you thought you shouldn't gamble or should gamble less?	0	1	2	3	4	5	6
Q13	How often has anyone close to you complained about your gambling?	0	1	2	3	4	5	6
Q14	How often have you lied to others to conceal the extent of your involvement in gambling?	0	1	2	3	4	5	6
Q15	How often have you hidden betting slips, Lotto tickets, gambling money or other signs of gambling from your spouse, partner, children or other important people in your life?	0	1	2	3	4	5	6

Again thinking about the past 12 months……………. (Read out questions), Record response as Yes or No.

For YES response ask second question Q (b), otherwise continue to next Q (a)

These questions are only applicable if respondent has a partner.

If no partner or significant other code N/A and continue with Q19.

			Yes	No	N/A
Q16a	Have you and your partner put off doing things together?		1	2	9
Q16b	If yes, was this made worse by your gambling?	Yes 1	Partly 2	No 3	N/A 9
Q17a	Have you and your partner criticised one another?		1	2	9
Q17b	If yes, was this made worse by your gambling?	Yes 1	Partly 2	No 3	N/A 9
Q18a	Has your partner had difficulties trusting you?		1	2	9
Q18b	If yes, was this made worse by your gambling?	Yes 1	Partly 2	No 3	N/A 9

Please use the scale as before to answer the next questions.

"Never, rarely, sometimes, often, always."

In the past 12 months ……….

		Never	Rarely	Sometimes	Often	Always	Can't say	N/A
Q19	How often have you spent more money on gambling than you can afford?	0	1	2	3	4	5	6
Q20	How often is your gambling made it harder to make money last from one pay day to the next?	0	1	2	3	4	5	6
Q21	How often have you had to borrow money to gamble with?	0	1	2	3	4	5	6

Appendix 2d. DSM-IV Diagnostic Criteria

The following are the diagnostic criteria from the DSM-IV for 312.31 (Pathological Gambling):

A. Persistent and recurrent maladaptive gambling behavior as indicated by at least five of the following:

1. is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)

2. needs to gamble with increasing amounts of money in order to achieve the desired excitement

3. has repeated unsuccessful efforts to control, cut back, or stop gambling

4. is restless or irritable when attempting to cut down or stop gambling

5. gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression.

6. after losing money gambling, often returns another day in order to get even ("chasing" one's losses)

7. lies to family members, therapist, or others to conceal the extent of involvement with gambling

8. has committed illegal acts, such as forgery, fraud, theft, or embezzlement, in order to finance gambling

9. has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling

10. relies on others to provide money to relieve a desperate financial situation caused by gambling

B. The gambling behavior is not better accounted for by a Manic Episode.

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, D.C.: Author.

Appendix 3a. Cluster Ratings for Men

Cluster	Problem Gambling	Recovery	Help Seeking
Escape from Reality			
1: Feels good like drugs and alcohol	Moderate	Low	Low
4: Feel lucky	Moderate	Moderate	Moderate
16: Receive VIP treatment	Low	Moderate	Moderate
24: Gambling reduces stress	Moderate	Moderate	Moderate
25: Casino tricks you into thinking you can win	Moderate	Moderate	Low
26: People use excuses/illogical reasons to gamble	High	Moderate	High
32: Hypnotic/lose sense of time	Moderate	Moderate	Low
36: Perception that the games are rigged	Low	Low	Low
39: Fun	Low	High	High
46: Can forget worries and find peace	High	Moderate	High
47: Constant highs and lows	Moderate	Moderate	High
59: Physiologically arousing	High	High	Moderate
60: Gambling relieves boredom	Moderate	High	Moderate
65: Thrilling to win	High	High	High
66: Gambling is an escape from reality	High	High	High
68: Entertaining	Moderate	Moderate	Moderate
69: No language barrier	Low	Low	Low
Seductions of Gambling			
5: Believe the casino can be beat	High	Moderate	Moderate
9: Can help resolve financial problems	High	High	High
12: Casinos make you feel important when you spend lots of money	Moderate	High	Moderate
21: Casino is an uplifting environment	High	Moderate	Moderate
27: Acquire large sums of money quickly	High	High	High
30: Gambling is a way to kill time	Moderate	Moderate	Moderate
37: Can meet people but do not have to develop friendship	Low	Low	Low
44: Meet people/friends	Low	Moderate	Low
62: Enjoy perks of casinos	Moderate	Moderate	High
Emotional Responses to the Addiction			
7: Feel isolated	Moderate	High	High
8: Gambling increases alcohol and drug use	Low	Low	Low
13: Lose self-respect / self-esteem	Moderate	Moderate	Moderate
14: Frustrated when losing	High	Low	Low
17: Get physical pain (sick) when you lose	Low	Low	Low
19: Sense of failure	High	High	High
22: Gambling is like alcoholism	Moderate	High	High
28: Shame	Moderate	Low	High
34: Can lead to desperation	High	High	Moderate
40: Gambling leads to anger at self	Low	Low	Low
42: Deep down people don't feel good about themselves	High	High	Moderate
50: Will go insane if you stop gambling	Moderate	Moderate	Moderate
51: Anxiety	Moderate	Moderate	High
63: Gambling can lead to suicide	High	High	Moderate
67: Depression	High	High	Moderate
70: Physiologically and mentally exhausting	Moderate	High	Low

Cluster	Problem Gambling	Recovery	Help Seeking
Gambling is Addictive			
10: Gambling is a worse addiction because you don't get sick like with drugs & alcohol	Low	Moderate	Moderate
18: Use gambling as a way to cope	Moderate	Moderate	High
29: Blame others for losing	High	Moderate	Moderate
31: Blame ourselves for the loss	Low	Low	Low
33: Binge gambling	Low	Low	Low
43: Can't stop even if you want to	High	High	Moderate
52: Can't accept losses	Moderate	High	Moderate
53: Get a gut feeling if you will win or lose	Moderate	Moderate	Low
54: Gambling takes over your life	Moderate	Moderate	High
56: Don't want to admit you are addicted	High	Moderate	High
58: Gambling is always on your mind	Moderate	High	Moderate
Destruction of Family/Relationships			
2: Severity of problem is a shock for families	Moderate	Moderate	Moderate
3: Creates rifts/conflicts in relationship	High	High	High
11: Feel pressure from spouse/friends to gamble	Low	Low	Low
15: Loss of trust of family members	Moderate	High	Moderate
20: Use money meant for family	High	High	Moderate
23: Anger from families	Low	Moderate	High
38: Emotional neglect of children	Moderate	Low	Moderate
41: Material neglect of children	Low	Moderate	Low
45: Destroys relationships/marriages	High	High	High
57: Dishonesty (e.g., lie to family, at work)	High	High	High
61: Lose friendships	Low	Low	Low
71: Hide the problem from family	Moderate	Moderate	Moderate
72: Children may be apprehended due to parental gambling	Moderate	Low	Low
Financial Consequences			
6: Continuing to gamble to cover losses	Moderate	High	Moderate
35: Use money from your own business/disability money to gamble	Low	Low	Moderate
48: Job loss	Moderate	High	Low
49: Financial ruin	High	High	High
55: Debt/financial losses/bankruptcy	High	High	High
64: Embezzle money from your employer	Moderate	High	Moderate
73: Stealing	Low	Low	Low

Appendix 3b. Cluster Ratings for Women

Cluster	Problem Gambling	Recovery	Help Seeking
Escape from Reality			
1: Feels good like drugs and alcohol	Moderate	Low	Low
4: Feel lucky	Moderate	Moderate	Moderate
16: Receive VIP treatment	Low	Moderate	Moderate
24: Gambling reduces stress	Moderate	Moderate	Moderate
25: Casino tricks you into thinking you can win	Moderate	Moderate	Low
26: People use excuses/illogical reasons to gamble	High	Moderate	High
32: Hypnotic/lose sense of time	Moderate	Moderate	Low
36: Perception that the games are rigged	Low	Low	Low
39: Fun	Low	High	High
46: Can forget worries and find peace	High	Moderate	High
47: Constant highs and lows	Moderate	Moderate	High
59: Physiologically arousing	High	High	Moderate
60: Gambling relieves boredom	Moderate	High	Moderate
65: Thrilling to win	High	High	High
66: Gambling is an escape from reality	High	High	High
68: Entertaining	Moderate	Moderate	Moderate
69: No language barrier	Low	Low	Low
Seductions of Gambling			
5: Believe the casino can be beat	High	Moderate	Moderate
9: Can help resolve financial problems	High	High	High
12: Casinos make you feel important when you spend lots of money	Moderate	High	Moderate
21: Casino is an uplifting environment	High	Moderate	Moderate
27: Acquire large sums of money quickly	High	High	High
30: Gambling is a way to kill time	Moderate	Moderate	Moderate
37: Can meet people but do not have to develop friendship	Low	Low	Low
44: Meet people/friends	Low	Moderate	Low
62: Enjoy perks of casinos	Moderate	Moderate	High
Emotional Responses to the Addiction			
7: Feel isolated	Moderate	High	High
8: Gambling increases alcohol and drug use	Low	Low	Low
13: Lose self-respect / self-esteem	Moderate	Moderate	Moderate
14: Frustrated when losing	High	Low	Low
17: Get physical pain (sick) when you lose	Low	Low	Low
19: Sense of failure	High	High	High
22: Gambling is like alcoholism	Moderate	High	High
28: Shame	Moderate	Low	High
34: Can lead to desperation	High	High	Moderate
40: Gambling leads to anger at self	Low	Low	Low
42: Deep down people don't feel good about themselves	High	High	Moderate
50: Will go insane if you stop gambling	Moderate	Moderate	Moderate
51: Anxiety	Moderate	Moderate	High
63: Gambling can lead to suicide	High	High	Moderate
67: Depression	High	High	Moderate
70: Physiologically and mentally exhausting	Moderate	High	Low

Cluster	Problem Gambling	Recovery	Help Seeking
Gambling is Addictive			
10: Gambling is a worse addiction because you don't get sick like with drugs & alcohol	Low	Moderate	Moderate
18: Use gambling as a way to cope	Moderate	Moderate	High
29: Blame others for losing	High	Moderate	Moderate
31: Blame ourselves for the loss	Low	Low	Low
33: Binge gambling	Low	Low	Low
43: Can't stop even if you want to	High	High	Moderate
52: Can't accept losses	Moderate	High	Moderate
53: Get a gut feeling if you will win or lose	Moderate	Moderate	Low
54: Gambling takes over your life	Moderate	Moderate	High
56: Don't want to admit you are addicted	High	Moderate	High
58: Gambling is always on your mind	Moderate	High	Moderate
Destruction of Family/Relationships			
2: Severity of problem is a shock for families	Moderate	Moderate	Moderate
3: Creates rifts/conflicts in relationship	High	High	High
11: Feel pressure from spouse/friends to gamble	Low	Low	Low
15: Loss of trust of family members	Moderate	High	Moderate
20: Use money meant for family	High	High	Moderate
23: Anger from families	Low	Moderate	High
38: Emotional neglect of children	Moderate	Low	Moderate
41: Material neglect of children	Low	Moderate	Low
45: Destroys relationships/marriages	High	High	High
57: Dishonesty (e.g. lie to family, at work)	High	High	High
61: Lose friendships	Low	Low	Low
71: Hide the problem from family	Moderate	Moderate	Moderate
72: Children may be apprehended due to parental gambling	Moderate	Low	Low
Financial Consequences			
6: Continuing to gamble to cover losses	Moderate	High	Moderate
35: Use money from your own business/disability money to gamble	Low	Low	Moderate
48: Job loss	Moderate	High	Low
49: Financial ruin	High	High	High
55: Debt/financial losses/bankruptcy	High	High	High
64: Embezzle money from your employer	Moderate	High	Moderate
73: Stealing	Low	Low	Low