Exploring and Understanding Online Assistance for Problem Gamblers: The Pathways Disclosure Model

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Problem gambling rates are increasing, but few of those requiring help receive it; stigma is often cited as a reason why treatment is not forthcoming. Such is the context for this study, possibly the first to examine Internet-based help for gambling problems. The study explored problem gamblers' use of computer-mediated communication (CMC) as a facet of their recovery. Fifty individuals responded to invitations to provide information via an electronic survey, based on their affiliation with a popular online support group known as "GAweb." Seventy percent of the participants indicated that they had previously avoided attendance at face-to-face programs because of concerns related to stigma. Those who experienced the greatest degree of stigma were individuals who had not received any care. Exposure to GAweb was associated with participation in future treatment. Most reported that the ability to secretly lurk at GAweb contributed to their disclosure of personal information. These findings led to the development of the *Pathways Disclosure Model* to explain why online assistance may be of particular utility for some problem gamblers. The model and its implications are discussed.

Keywords: Online assistance; Computer-mediated communication (CMC); Self-help; Stigma; Problem gambling; Treatment-avoidance; Disclosure.

Introduction

In many parts of the world, the availability of legalized gambling has increased dramatically over the latter half of the twentieth century (Cox, Kwong, Michaud, & Enns, 2000; Ladouceur, Jacques, Ferland, & Giroux, 1999). In their meta-analysis of 134 prevalence estimates, Shaffer, Hall, and Vander Bilt (1999) found evidence "that the prevalence of gambling disorders among adults in the general population increased between 1974 and 1997" (p. 1372). Not surprisingly, increased availability of gambling has been thought to be predictive of increased problems associated with this behaviour (Grun & McKeigue, 2000; Henriksson, 1996; Lesieur, 1998; Shaffer et al., 1999).

Unfortunately, most individuals with gambling

problems do not seek help. It has been found that many of these people have difficulty identifying with the image of the compulsive gambler (Derevensky & Gupta, 2000). Problems regarding treatment avoidance have also been identified in the National Gambling Impact Study Commission (1999), which reported that only 3 percent of American problem gamblers seek professional help in any given year; this parallels research concerning other addictive behaviours (Sobell, Ellingstad, & Sobell, 2000). The issue of stigma has been identified as an important reason why many people with addiction problems avoid help (Schober & Annis, 1996; Sobell et al., 2000).

Hodgins and el-Guebaly's (2000) study of naturallyrecovered problem gamblers reported similar findings: At least half of all participants indicated that being embarrassed or too proud was a factor in avoiding treatment; 53 percent stated that they were concerned about stigma. Additionally, almost a quarter of the participants indicated that they had never sought formal help because they had negative attitudes towards treatment. Active gamblers were more likely to indicate

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that embarrassment or pride was an issue that kept them from initiating treatment.

Similarly, in comparing self-recovered former problem gamblers to treatment-recovered former problem gamblers, Marotta (2000) found that the primary reasons for not seeking formal treatment included a desire for unassisted improvement, denial or problem minimization, and embarrassment or anxiety.

Despite these face-to-face help-avoidance issues, there is emerging evidence that individuals are increasingly seeking help for a variety of medical and personal problems through the Internet (Ferguson, 1997; Houston, Cooper, & Ford, 2002; Madara, 1997). While there are a few studies of online addiction recovery initiatives (most notably by Finn, 1996, and by King, 1994), these were specifically focused on substance abuse behaviours.

To date, there is little information regarding problem gamblers' therapeutic use of the Internet. The current study, which was conducted bearing these issues in mind, examined problem gamblers' use of a popular (privately-owned) Internet web site called "GAweb" as a facet of their recovery. This web site offered a worldwide peer-support environment to problem gamblers from May 1996 to September 2001. In particular, the study explored two main issues. First, how did participants use GAweb (in other words, did they augment their online recovery with other more traditional face-to-face forms of help or did they use this Internet group as their primary approach to recovery)? Second, were there benefits for problem gamblers as a result of visiting GAweb and, if so, what were these benefits?

Method

Fifty individuals were recruited from the web site known as "GAweb." All participants met the study's criteria for inclusion: (a) scores greater than 5 on the South Oaks Gambling Screen (SOGS); and (b) passing a brief screening instrument used extensively in problem gambling research (Lesieur & Blume, 1987). Study participants were recruited in two ways: (a) via broad notes of solicitation (posted at the beginning of the month from August to December 1999) as part of GAweb's main discussion; and (b) via individual electronic notes of invitation to those who had provided their correct e-mail addresses at GAweb (between May 1, 1999 and December 31, 1999). Complete details regarding the methodology are available elsewhere (Cooper, 2001).

A 41-item survey was sent electronically to 19 individuals who responded to the broad solicitation, and another 71 participants who requested the survey in response to the direct invitations. These submissions resulted in useable surveys being returned by 52.6 percent (N = 10) and 56.3 percent (N = 40), respectively, by these two groups. Since it was not possible to determine exactly how many prospective participants actually read the note of invitation, an overall rate of response could not be calculated. This is a common problem with studies utilizing online cohorts (see, for example, Houston et al., 2002).

Data were analyzed quantitatively and qualitatively. Demographic data were outlined using descriptive statistics, such as frequencies and cross tabulations. Relationships between variables were investigated using correlation coefficients, and, where required, chisquare and t-tests were used, respectively, for categorical and interval data.

In terms of the qualitative analysis, the goal was to "locate patterns or themes that [were] embedded in the data" (Rothe, 1994, p. 130). The method used to generate rich descriptions of participants' comments followed a standard grounded theory approach (Glaser & Strauss, 1967). This approach "both describes and explains the system or behaviour under study and consequently is a methodology for developing theory that is grounded in data systematically gathered and analyzed" (Cutcliffe, 2000, p. 1477).

Participants

Participants were generally a well-educated, sociallystable group who were almost equally divided by gender (52 percent male). Most had attended a postsecondary educational institution, were married or in a common-law relationship, employed, came from the United States, and resided in larger urban centres (82, 74, 74, 74 and 62 percent, respectively). Participants' mean age was 43.3 years. Men reported a higher standard of living than women ($\chi^2 = 6.27$, df = 2, N = 49, p = .044), and women were more likely to have reported themselves as never married, separated, divorced or widowed than men ($\chi^2 = 7.51$, df = 1, N = 49, p = .006). The mean number of people living in participants' households was 3.1 (SD = 1.39, range = 7).

As a group, participants' problems with gambling were quite substantial: the average SOGS score was 13.98 (SD = 3.07, with a range of 13 from 7 to 20). Mean SOGS scores did not differ significantly by gender: Men averaged 14.2 and women 13.7.

Overall, 80 percent reported attendance at some form of face-to-face intervention during some point in their lives (Gamblers Anonymous [GA] and/or treatment). The majority of participants indicated that they had been active in such programs within the past two months, and that their participation levels could be described as "extensive." The average length of GA affiliation for attendees was 59.3 months; similarly, treatment affiliation was 49.2 months for attendees (GA/treatment affiliations were not necessarily of an ongoing or steady nature, though).

While there were many instances of participants attending GA without seeking treatment, there were no instances of individuals attending specialist-delivered treatment without also attending GA. Overall, 40 percent availed themselves of specialist help through treatment programs, and, of treatment attendees, about 40 percent (16 percent of the total sample) indicated that they had been active with such a program in the two months prior to their participation in this study.

Twenty percent of the sample had not attended either GA or treatment. This group tended to be younger (mean age of 37.3 versus 44.9 years; t = -2.182; df = 44; p = .035), was mostly comprised of women (70 percent) and had a slightly lower SOGS score than the others averaging 13.2 (versus 14.2).

Women in this study were significantly more likely to be new to GAweb than men: 72.7 percent of female participants had less than two months affiliation with the online support group ($\chi^2 = 6.94$, df = 1, N = 48, p = .008). Despite their being much newer to GAweb, women indicated that they visited as often as men and posted as often.

With regard to those who responded to the broad solicitation versus the direct solicitation method, the two groups did not differ in terms of their demographics, with the exception of the mean number of cohabitants (M = 3.9 and M = 2.85, respectively; t = 2.22; df = 47; p = .031).

Results

Despite their high rate of self-help and treatment af-

 Table 1

 Reasons for avoidance of face-to-face/GA treatment

Variable	GA ^a % (<i>n</i>)	Treatment ^a $\%$ (<i>n</i>)
Concerned about others' opinions	61.5 (24)	28.2 (11)
Concerns about confidentiality	35.9 (14)	23.1 (9)
Did not want to make a commitment	56.4 (22)	38.5 (15) 38.5 (15)
Discomfort about personal disclosure	46.2 (18)	
Inconvenient	51.3 (20)	33.3 (13)
Other reasons	20.5 (8)	25.6 (10)

^a Percentages reflect those expressing an affirmative opinion out of the 39 who indicated that they avoided treatment and/or self-help.

filiations, 78 percent of the sample indicated that, at some point, they avoided going to a face-to-face selfhelp group and/or a specialist treatment service. Seventy percent stated that this was due to a range of reasons that were related to stigma (see Table 1). For example, over 60 percent avoided face-to-face GA because of their concerns regarding others' opinions. Nearly half (46.2 percent) of participants claimed to be uncomfortable with the idea of disclosing personal information at GA (38.5 percent said this about treatment).

The total number of reasons cited by participants for avoiding GA and/or treatment due to stigma was greatest amongst those who had never received any help. The mean number of these "stigma scores" was 2.16 for the group who attended GA but not treatment, 2.50 for the group who attended both GA and treatment, and 4.22 for those who did not attend either. In an analysis employing t-tests, the contrast in mean scores was greatest between the no-assistance group and the GA-only group (t = -2.096; df = 26; p = .046). Further analysis revealed that those who self-reported that their GA affiliations were "extensive" had significantly lower stigma scores than other GA attendees (without extensive affiliations) and non-attendees. Respectively, these mean scores were 1.79 (extensive GA attendees), 3.90 (other non-extensive GA attendees) and 4.22 (noassistance group). The t-test results were as follows: Significant differences between extensive and nonextensive GA attendees (t = -2.39; df = 36; p = .022) and between extensive GA and no-assistance groups (t = -2.77; df = 35; p = .009).

For the most part, there were no significant differences between men's and women's avoidance of faceto-face treatment, self-help, or both. One variable, however, was statistically significant: Women's avoidance of GA because it was inconvenient ($\chi^2 = 4.31$, df =1, N = 39, p = .038). Apparently, this inconvenience was often due to the lack of a GA meeting in the participant's hometown, a common theme at the time in the general discussion at GAweb.

The vast majority stated that their exposure to GAweb increased the likelihood that they would continue returning to that particular web site (86 percent), that they would seek out additional forms of Internet self-help (76 percent), and that they would attend faceto-face GA meetings (78 percent). While a sizeable proportion also agreed to seek other face-to-face selfhelp groups and counseling/treatment services, those percentages were considerably smaller (respectively, 52 and 50 percent).

In a majority of cases, participants reported that the opportunity to engage in lurking behaviour (anonymously reading the postings of others without detection) increased the likelihood of their disclosing gambling problems in a variety of ways: Through their posting of notes (73.5 percent); continued participation at GAweb (67.4 percent); seeking more Internetbased help (64.6 percent); seeking face-to-face help (54.2 percent); and revealing personal information (53.2 percent). The degree to which participants had previously posted notes at GAweb did not appear to impact their responses to this question; importantly, both frequent and infrequent posters appeared to have appreciated the benefits of lurking.

Seventy percent claimed that GAweb had positive impacts upon their gambling behaviour, such as new personal relationships, peer support, hope in times of crisis, and maintaining abstinence so as not to disappoint the group. GAweb was also deemed helpful by those whose goal was non-abstinence. For those who indicated that their problem gambling had been addressed via other forms of help, most still perceived benefits from GAweb; for instance, helping to reinforce abstinence. Participants particularly appreciated the ease and immediacy of access to GAweb regardless of factors like geography or the weather (which can often pose barriers to face-to-face forms of help). Participants also frequently commented on the connection between their level of honesty and the safety of knowing that they were completely anonymous in this forum. Many also reported that they were helped through the online archives of previous postings, which were always available.

Discussion

As of May 2003, there were an estimated 605 million people worldwide with access to the Internet, including roughly 183 million North Americans (Nua Internet Surveys, 2003). Clearly, the Internet has experienced rapid growth, yet a full understanding of its communicative capabilities has not kept pace. Our knowledge of how and why the Internet can facilitate personal journeys of both addiction and recovery is in its infancy. This study is among the first to provide such information regarding the specific issue of recovery from gambling problems using online forms of help.

As gambling becomes more popular in society, it is reasonable to expect that many more will succumb to its negative consequences. To be sure, the gaming industry is taking a very aggressive approach towards the development of online gambling venues in search of new customers. Even though the Internet may ultimately contribute to an escalation of gambling problems, it is becoming clear that it also poses important opportunities to help many in their search for assistance.

In some cases, these will be people who receive help much earlier in the development of their problem. In other cases, Internet-based assistance might be the only viable help available to individuals because of their physical (e.g., geographical, transportational, or meteorological) and/or emotional (e.g., anxiety, guilt, or fear of stigmatization) circumstance. In this study, as many as twenty percent of participants used GAweb exclusively for their recovery. Therefore, it seems reasonable to assume that the Internet can (and increasingly will) play a critical role in facilitating strategies that address traditional barriers to treatment. It may be that the Internet provides a unique opportunity to concurrently address the above obstacles to treatment. To be sure, online interventions are relatively inexpensive to develop and maintain for utilization by vast target audiences (Cunningham, Humphreys, & Koski-Jannes, 2000).

The findings in the current study support a small but growing literature that has suggested that many problem gamblers avoid help because they are concerned about the effects of stigma. In this study, seventy percent stated that they avoided face-to-face help at some point in their lives due to stigma. However, those who had yet to form an affiliation either GA or with treatment programs appeared to have a significantly higher level of concern than those who eventually found their way to such help. This raises the issue that one's concerns regarding stigmatization might best be understood as a matter of degree; the more these concerns are present, the more likely it may be that the problem gambler is devoid of any affiliation with sources of help.

That said, data in this study speak to a positive relationship between one's extensive GA involvement and having relatively few concerns about stigma. At the same time, the present study also found considerable

No Disclosure	Private Reading of Information	CMC Lurking	CMC Passive Participation	CMC Active Participation	CMC Leadership	F2F Passive	F2F Active	Anonymous F2F Public Leadership	Full F2F Disclosure & Public Leadership
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Figure 1. The continuum of the Pathways Disclosure Model, ranging from no disclosure on the left to full face-to-face disclosure and public leadership on the right. CMC: computer-mediated communication; F2F: face-to-face.

concern about stigma amongst those with no GA or treatment affiliation. It is important to recognize that these data do not establish a causal relationship-merely that a positive correlation exists between these variables. Nevertheless, such a relationship is an interesting issue on which to speculate. For instance, do people with high anxiety about stigma avoid help (e.g., GA or specialized treatment) on an ongoing basis, or do their concerns decrease over time, assuming they are able to overcome their anxiety long enough to forge affiliations with helping organizations? Clearly, more research is needed to address questions such as this.

On the basis of the aforementioned issues and the findings of this study, it seems likely that the Internet can play a very unique role in the personal-disclosure process, which typically occurs in stages. Essentially, the Internet enables people who experience stigma to participate in help-oriented activities, interventions and relationships, while not necessitating the disclosure of any personal information. These observations have led to the development of the Pathways Disclosure Model (see Figure 1). In this paradigm, treatmentresistant "precontemplators" (Prochaska & Di-Clemente, 1982, 1992) might be more amenable to exploring the nature of helping interventions if they can do so without having to surrender any personal information. In essence, participants of online self-help support groups have a compete assurance of full anonymity. In this way, it may be much easier to move such individuals into the contemplation and action stages of the recovery process.

In the Pathways Disclosure Model, the amount of personal information that is disclosed generally increases from left to right. On the extreme left there is no disclosure whatsoever; on the right-hand side, disclosure is full and liberating. It is important to note, however, that disclosure can be quite subjective. Furthermore, there may be issues with the quality and quantity of the information revealed. For example, some might feel that they would disclose more about themselves if they were to physically attend a face-toface support group in their neighbourhood (even if they do not verbally contribute to the discourse), as opposed to freely volunteering personal demographic information via an Internet-based discussion group. For this reason, it is impossible to definitively state the model's stages or pathways. In other words, the specific benchmarks of this model and their ordering may vary from person to person and/or from experience to experience. Therefore, the Pathways Disclosure Model may be more useful as a broad conceptual approach to use with clients of mental health and addiction services, as opposed to being an approach that can be consistently applied across all individual situations.

While some typical pathways are identified in Figure 1, movement through the model is not necessarily linear. That is, an individual may disclose different types of information concurrently using several of these methods. There may also be additional disclosure activities in-between these main items. For example, online self-help group participants might choose to communicate with others via postal service, facsimile, or the telephone. Of importance is the relative amount of anonymity participants choose to retain as they interact with others. The Internet provides people with the opportunity to selectively disclose personal information and at a schedule determined by the individual. Until now, full personal control over this type of disclosure has not been possible. In this way, the Internet democratizes human interactions.

At one end of the Pathways Disclosure Model, and aligned with the earliest level of precontemplation in Prochaska and DiClemente's (1982, 1992) transtheoretical model, there is absolutely no disclosure by the problem gambler. At the other end, closer to where contemplation meets the action stage, and perhaps even into the maintenance stage of change, disclosure becomes full and potentially liberating. Degrees of personal disclosure are found amid these extremes, with an increasing gradient of disclosure (and hence, risk) from left to right.

Initially, people locate web sites like GAweb and read the posts of others, often over a period of several weeks or months (Parks & Floyd, 1996). Eventually, many of these individuals will post notes anonymously, and later will provide identifying information, such as their e-mail address. Over time, an individual's online identity (or persona) becomes firmly established, and others may look to him/her for inspiration, support and leadership. The aggregate experiences of participants in the current study (used to develop and inform the Pathways Disclosure Model), appear to be consistent with Dindia's (1998) observations of personal disclosure: A dynamic process that can be non-linear, cyclical, concurrent in different circumstances, and, for most people, an ongoing issue.

With the Pathways Disclosure Model, it is easier to understand how innovations to the help-seeking process are possible, such as in concurrent recovery activities wherein one's anonymity can be differentiated. Consider, for example, the case of the individual who has been actively participating in an online discussion having revealed her name, city of origin, and e-mail address in tandem with specifics about her gambling problem. A second person seeking advice and support from the same online support group through his anonymous first-time post may have discussed how he is engaged in an illegal behaviour (e.g., sex trade or illicit drug sales) to support his gambling. The woman might want to give a note of support to the newcomer, including a description of how she continues to engage in such behaviours as well (even though her gambling has since discontinued). However, even though she has felt comfortable in openly discussing other issues associated with her gambling, she may experience extreme discomfort in addressing her involvement with the sex trade unless she could be assured of total anonymity.

In the above illustration, the Internet can accommodate this woman's ability to remain completely anonymous while permitting continued participation in the discourse. She could, theoretically, take action on an additional problem, which, until then, may have remained at the precontemplation stage. Since the woman's experience in the sex trade had yet to be revealed to the larger group, she might opt to render her support to the gentleman using an alias at this time. In short, she would be simultaneously and differentially involved with the same instrument of recovery (the online peer-support forum) as she attempts to deal with two different, perhaps related problems. Clearly, such a strategy might not be an option in face-to-face settings.

It would appear that one of the most critical aspects of neutralizing stigma is the ability to anonymously "test drive" the online intervention through lurking. Participants in this study overwhelmingly endorsed the benefits of lurking. They strongly equated it with their continued efforts at recovery and indicated that lurking made it much more likely that they would engage in personal disclosure. To be sure, lurking and anonymity are critical elements of the Pathways Disclosure Model. This may help to explain why other studies have found increased personal disclosure when computer-mediated communication has been used, as opposed to communication in face-to-face settings (Joinson, 2001).

Limitations

The foregoing commentary needs to be understood within the context of several limitations and caveats. For example, online assistance might not be appropriate for all problem gamblers. Some might find it an unproductive experience and may dislike the harsh or derogatory language that is often associated with public disagreements (flames, as they are often called). Others may be reluctant to post their correct e-mail address, as that could lead to unsolicited e-mail messages (i.e., spam) or computer-virus attacks. One must also possess a certain degree of literacy to participate in this kind of forum. Furthermore, access to the Internet is required. These limitations may have resulted in a biased sample of participants.

This study is also limited to the extent that there may have been a selection bias influencing the results.

There is no way of determining how or why some individuals decided to participate while others chose to remain silent. In addition, participants provided selfreports that were not verified by collateral sources. Participants were also recruited from a single web site that may not have been representative of other online peersupport groups. For these reasons, the applicability of these results to other groups needs to be cautiously considered.

Conclusion

Internet-based support groups appear to provide individuals experiencing stigma with a new means of "testing the waters." In seeking help from online interventions, power is more equitably shared among those seeking assistance and those rendering it. Help-seekers not only have the benefits of easy "24/7" access and safety, but are also able to take time to ponder issues, and to reflect on how they want to express themselves before actually posting their thoughts. Online forms of assistance might also be more appealing than face-toface approaches because they may be more flexible and accommodating of other perspectives regarding recovery processes.

Since personal disclosure and honesty are generally accepted as important ingredients in the recovery process, anything that can be done to facilitate their occurrence should be carefully considered. Perhaps the time is opportune for policy makers, system planners and treatment providers to consider the Internet's potential for extending help to problem gamblers (Griffiths & Cooper, 2003). In fact, it may also be time to think about online forms of assistance for other groups, particularly those tending to avoid seeking help because of stigma (e.g., individuals with substance abuse problems, mental health problems, etc.). Convenientlylocated computer terminals connected to online selfhelp web sites and peer-support groups may be an important way of addressing issues of stigma and low treatment-utilization rates, while simultaneously attending to cost containment issues.

Help for gambling problems can be found via the Internet; many of those who address their problems in this fashion feel that they derive considerable benefit. Such benefits result when affiliation with the website plays one of two roles: (a) a primary/exclusive source of therapy (as was the case for twenty percent of participants in this study); and (b) an adjunct to other methods of recovery (most notably, Gamblers Anonymous). Clearly, computer-mediated communication will not be a solution for everybody. However, the challenge for academe, clinicians, policy makers and consumer advocates will be to discover who, and under what circumstances, is best suited for deriving benefit from online assistance, and to follow-up the new knowledge with appropriate action.

It is hoped that the Pathways Disclosure Model contributes to this drive for new knowledge by providing a basis for understanding why online assistance may be of special interest to many problem gamblers, particularly those concerned about the effects of stigma.

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