

J Gambl Stud (2013) 29:51–59
DOI 10.1007/s10899-011-9288-3

ORIGINAL PAPER

Internet Poker Websites and Pathological Gambling Prevention Policy

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Published online: 16 December 2011
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Abstract Despite the widespread increase in online poker playing and the risk related to excessive poker playing, research on online poker websites is still lacking with regard to pathological gambling prevention strategies offered by the websites. The aim of the present study was to assess the pathological gambling-related prevention strategies of online poker websites. Two keywords (“poker” and “poker help”) were entered into two popular World Wide Web search engines. The first 20 links related to French and English online poker websites were assessed. Seventy-four websites were assessed with a standardized tool designed to rate sites on the basis of accountability, interactivity, prevention strategies, marketing, and messages related to poker strategies. Prevention strategies appeared to be lacking. Whereas a substantial proportion of the websites offered incitation to gambling such as betting “tips,” few sites offered strategies to prevent or address problem gambling. Furthermore, strategies related to poker, such as probability estimation, were mostly reported without acknowledging their limitations. Results of this study suggest that more adequate prevention strategies for risky gambling should be developed for online poker.

Keywords Internet · Quality indicators · Poker · Gambling · Prevention ·
Public health policy · Social responsibility

Introduction

Poker is a competitive social gambling card game of skill and luck. The game includes a wide range of challenging strategic and interpersonal choices in a context of risk and

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uncertainty in which each player has to keep secret the cards at hand. Online poker, especially Texas Hold'em, has been escalating in popularity (Linnet et al. 2011). The number of online poker websites increased from 30 to over 400 between 2002 and 2006 (Cotte and Latour 2009).

The phenomenon is challenging for prevention and public health policy, with improvement in the appraisal of risky-gambling prevention strategies related to websites that offer online poker activities being urgently required. Many concerns have been raised regarding the potential for pathological gambling associated with gambling online (Petry and Weinstock 2007; Smeaton and Griffiths 2004). It has previously been shown in studies that have not included psychological assessments of gamblers that a substantial proportion of the gamers differ from others in terms of betting behaviors and gambling expenses and losses (Labrie et al. 2007, 2008), indicating possible pathological gambling in some of the gamblers (Xuan and Shaffer 2009). Several studies found that online gamblers are more likely than non-Internet gamblers to develop gambling-related problems (Cotte and Latour 2009; Griffiths et al. 2009; Ladd and Petry 2002; Potenza et al. 2011). Furthermore, Internet gamblers with problematic gambling reported stronger gambling motivations to regulate mood, obtain money, and derive enjoyment compared with those who did not report problematic gambling (Lloyd et al. 2010). It follows that some online gamblers are at a high risk for developing gambling problems (Cotte and Latour 2009).

The question related to possible risky-gambling behavior has been less specifically studied among online poker gamblers (Johansson et al. 2009). However, in several studies on samples of self-selected online poker gamblers (Wood et al. 2007), a substantial proportion of the samples (9 to 18%; Hopley and Nicki 2010; Wood et al. 2007) were classified as problem gamblers, and a number of risk factors, such as negative affective states (Hopley and Nicki 2010; Wood et al. 2007) and playing to escape (Wood et al. 2007), were associated with problem gambling.

In an experimental study, it was found that pathological gambling poker players, despite having extensive experience with playing poker, had a significantly higher average margin of error in estimating probability than did the control group of poker players (Linnet et al. 2011). This error is similar in nature to the well-known cognitive biases associated with pathological gambling (distorted perceptions or beliefs about gambling) (Ladouceur et al. 2001).

Because of concerns related to the emergence of pathological gambling among online gamblers, some researchers have proposed offering interactive feedback control during gambling or possible time or spending limits (Broda et al. 2008; Griffiths et al. 2009). Despite the lack of evidence about the impact of these measures on gambling behavior, they seem to be a step toward the promotion of responsible gaming (Griffiths et al. 2009). Given the emergence of online pathological gambling and online pathological poker gambling, the assessment of poker-related websites for the purpose of risky-gambling prevention is essential. A previous study, relatively old in consideration of the speedy evolution of the web, on 30 United Kingdom Internet gambling sites found that very few were engaged in socially responsible practice (pathological gambling prevention) (Smeaton and Griffiths 2004). The present study aims to systematically assess poker websites with regard to prevention strategies and to compare French and English websites, two linguistic areas with important poker influence and possibly differences in e-commerce culture and methods.

Method

Selection of Websites

Keyword searches were performed on the Internet to identify French and English poker websites in March 2010 for French websites (including .fr as a suffix, or a French word in the address) and in November 2010 for English websites. Two keywords were entered, poker and poker help, into two of the most popular World Wide Web search engines: Google and Yahoo. The first 20 English language websites returned for each keyword query were examined, given that most people rarely search beyond the first 20 links (Eysenbach et al. 2002).

Sites were excluded if they were inaccessible, had already been reviewed in the current study, were not poker gambling websites, represented a discussion group, were not a site (external links, books, or articles), or contained no information in English or French.

Evaluation of the Websites

Websites were evaluated with a standardized tool developed by the authors in order to assess the following elements:

1. Interactivity: presence of supporting bodies (forums, chat rooms), possibility of sending queries to the webmaster or asking for individualized online or phone support.
2. Poker games offered and possibilities of playing in cash games or tournaments.
3. Encouragement to gamble (possibility of playing at a cash game for free, first deposit for free, bonus).
4. Information related to poker rules.
5. Information regarding the legal context of playing poker online.
6. Online prevention with a 10-item scale designed by the authors (Table 1). The scale includes items such as warnings about pathological gambling, links to prevention or gambling-treatment websites, a spending or time limit, a gambling self-assessment tool, and information on off-line support for pathological gambling.

For each item in Table 1, with two exceptions (items Pr3 and Pr8), the score was 0 if absent and 1 if present. For the item related to the self-assessment tool (Pr3), the scoring was as follows: absent, 0; present without feedback, 1; present with generalized feedback, 2; and present with personalized feedback, 3. For the item related to the link to a helping

Table 1 Prevention assessment scale

Pr1	Warnings related to the risk of pathological gambling
Pr2	Information related to the symptoms of problem or pathological gambling
Pr3	Pathological gambling self-assessment test
Pr4	Information about possible off-line medical and psychological resources for gambling issues
Pr5	Information related to a help-line for gambling issues
Pr6	Time or spending limits
Pr7	On-site contact for gambling issues
Pr8	Link to helping organization or gambling prevention website
Pr9	Link to helping organization or gambling prevention website on the home page
Pr10	If yes, is the link visible at the top of the page?

organization or gambling prevention website (Pr8), the scoring was as follows: absent, 0; present but nonfunctional, 1; and a functional link, 2.

Interrater reliability of the assessment tool scores was assessed on the basis of a random sample of sites with two evaluators.

Analyses

Statistical analyses were performed using SPSS (version 18.0, IBM, Chicago, USA).

An initial exploratory analysis involved the calculation of proportions, as well as means and standard deviation of the outcome values.

English and French websites were compared with *t* tests for means and with χ^2 for proportions and, when appropriate, Fisher tests.

An analysis of variance (ANOVA) was performed with the prevention score as the dependent variable and the following variables as factors: information about legal context (yes vs. no), explanation about poker rules (yes vs. no), the possibility of playing at a cash game for free (yes vs. no), first deposit for free (yes vs. no), availability of a forum (yes vs. no), and online or phone support for gamblers (no support at all vs. support by mail and/or telephone).

For all analyses, a significance level of $P \leq .05$ was used.

Results

One hundred sixty links (first 20 links \times 2 languages \times 2 keywords \times 2 search engines = 160) were reviewed. Eighty-six links were not included: those already reviewed in the current study (e.g., same link issued from two different keywords) (54), that were not a poker website (26), and that were not a functional link (6). A total of 74 websites, 39 French language and 35 English language, were included in the final sample. The sites were assessed using the standardized assessment tool described earlier, which presents a good interrater reliability for the full assessment tool ($r = .95$; $P < .05$), as well as for the prevention scale ($r = .96$; $P < .01$).

Among the 74 websites, Texas Hold'em poker was most commonly offered along with a few other poker game possibilities (70.3%), such as Omaha. In order to play, gamers had to create an account for 71.6% of the websites. Cash games and tournaments were offered by 58.1% of the 74 assessed websites. A cash game was offered alone by 4.1% of the websites and tournaments alone by 12.2% of the websites. Poker game rules were explained for 91.9% of the websites. E-mail or phone support for gamblers was not available for 40.5% of the websites, and both e-mail and phone support were available for 17.6% of the websites. E-mail support was offered without phone support for 37.8% of the websites, whereas phone support was offered without e-mail support for less than 5% of the studied websites. The owner was identifiable in only 29.7% of the sites. No differences were found between French and English websites for these items. The location of most websites was not clearly stated for 54% of the websites. Only three websites were located in France, 1 in United Kingdom, 1 in Nevada. The other locations were mostly off-shore countries such as Gibraltar, Malta and Isle of MAN.

Table 2 presents the main results and comparisons between French and English language websites. English websites were more frequently found on a Google search engine than French websites (88.6% vs. 61.5%, respectively, and $\chi^2(1) = 7.1$, $P = .008$). A higher proportion of English websites (60%) than French websites (36.8%) offered the

Table 2 Assessments of the websites

	Total sample (<i>n</i> = 74)	French websites (<i>n</i> ₁ = 39)	English websites (<i>n</i> ₂ = 35)	<i>P</i> -value
Search engine (%)				.008
Google	74.3	61.5	88.6	
Yahoo	25.7	38.5	11.4	
Available in more than one language (%)	47.9	36.8	60.0	.05
Chat room (%)	32.4	23.1	42.9	.07
Forum (%)	35.1	51.3	17.1	.002
Webmaster contact (%)	77.0	87.2	65.7	.03
Identifiability of site owner (%)	29.7	25.6	36.4	.3
Cash game for free (%)	34.2	52.6	14.3	.001
First deposit for free (%)	29.7	20.5	40.0	.07
Information related to the legal context (%)	48.6	23.1	77.1	<.0005
Suggested gambling strategies:				
Probability estimation (%)	40.5	43.6	37.1	.6
Observation of the betting amounts of others (%)	14.9	7.7	22.9	.07
Bluff-related strategies (%)	24.3	35.9	11.4	.01
Pr ^a 1: Warnings related to the risk of pathological gambling (%)	48.6	41.0	57.1	.2
Pr2: Information related to the symptoms of problem or pathological gambling (%)	29.7	17.9	42.9	.02
Pr 3: Pathological gambling self-assessment test (%)		79.6	60.0	^b
Absent	68.9	12.8	22.9	
Present without feedback	17.6	2.6	17.1	
Present with general feedback	9.5	7.7	0	
Present with personalized feedback	4.1			
Pr 4: Information about possible off-line medical and psychological resources for gambling issues (%)	17.6	15.4	20.0	.6
Pr 5: Information related to a help-line for gambling issues (%)	10.8	7.7	14.3	.4
Pr 6: Time or spending limits (%)	24.3	10.3	40.0	.03
Pr 7: On-site contact for gambling issues (%)	12.2	2.6	22.9	^b
Pr 8: Link to helping organization or gambling prevention website				<.0005
Absent	55.4	69.2	40.0	
Present not functional	16.2	0	34.3	
Present and functional	28.4	30.8	25.7	
Pr 9: Link to helping organization or gambling prevention website on the home page (%)	55.5	50.0	57.1	.7
Pr 10: If yes to Pr 9, is the link visible at the top of the page?	15.8	0	25.0	^b
Global prevention score ^c Mean ± (SD)	3.4 (4)	2.6 (3.7)	4.3 (4.1)	.08

^a Pr: prevention strategy question (1–10). The reported values were related to the percentage of websites offering the prevention strategy. Pr 3 and Pr 8 were presented with other scoring detailed in the table

^b not applicable, sample size too small

^c Global prevention score: Pr1 + Pr2 + Pr3..... + Pr10

possibility of playing in another language, although language was an inclusion criterion ($\chi^2(1) = 3.9, P = .048$).

Encouragement to participate in poker gambling was commonly given. It was possible to play for free at the cash game in 52.6% of the French websites versus only 14.3% of the English websites ($\chi^2(1) = 11.9, P = .001$). Forty percent of the English language websites offered the “first deposit for free” versus 20.5% of the French language websites, but the difference was not statistically significant. Furthermore, 8 of the French websites and 14 of the English websites offered a bonus for the first deposit (up to \$1,000 or 200% of the deposit).

Regarding interactivity, a forum was available for 51.3% of the French websites versus 17.1% of the English websites ($\chi^2(1) = 9.4, P = .002$). Chat was more commonly available for English than for French websites (42.9 vs. 23.1%), but the difference failed to reach statistical significance ($\chi^2(1) = 3.3, P = .07$). Contact with the webmaster was possible at 87.2% of the French websites versus 65.7% of the English websites ($\chi^2(1) = 4.8, P = .03$).

Most French websites did not give legal information about poker online (76.9%), whereas only 22.9% of English websites did not provide this information ($\chi^2(1) = 21.6, P < .0005$).

A number of poker-related strategies were commonly presented, mostly probability estimation, observation of the betting amounts of others, and bluff-related strategies. The first and the third strategies were more commonly explained in French websites, whereas the second strategy was more common in English websites. Among the 74 websites, 40.6% described probability estimation, 14.9% described the observation of betting strategies of others, and 24.3% explained bluff-related strategies.

The first strategy was rated as very sure or always sure by 56.7% of 30 websites. Only one website stated that the strategy was not sure. Forty percent of the 30 websites reported the strategy without providing any comments or warnings related to the certainty of using it. The second strategy was rated as very sure or always sure by 27.3% of the 11 websites that described it, whereas 18.2% stated that the strategy was not sure. The other six websites did not provide any comments about the strategy.

Regarding bluff-related strategies, 66.7% of 18 websites rated them as very sure or always sure, 11.1% of 18 rated them as not sure, and the others provided no further comments. Regarding prevention strategies, only 48.6% of the websites gave a warning related to the risk of pathological gambling. As shown in Table 2, English websites provided information about symptoms related to pathological gambling more frequently than French sites did (42.9% vs. 17.9% and $\chi^2(1) = 5.5, P = .02$) and also provided time or spending limits more often (40% vs. 10.3% and $\chi^2(1) = 8.9, P = .003$). English websites had a link to a prevention website more frequently than French sites did. The links were, however, often not functional. When present, they were mostly on the home page (55.5%) but rarely at the top of the page (15.8%).

Most websites (68.9%) did not offer players any self-assessment for pathological gambling. Furthermore, when an assessment was possible, generalized (general explanation about the scores) or personalized feedback (specific message in relation to the score) was rarely offered.

Concerning the global prevention score, that is, the sum of the score obtained on the 10 questions related to prevention (minimum score: 0; maximum score: 13), the mean score for the 74 studied websites was very low: 3.4 ± 4 . English websites had higher (but not statistically significant; $P = .08$) scores than French language websites did (4.3 ± 4.1 vs. 2.6 ± 3.7).

The ANOVA showed that the between-group difference was statistically significant for the possibility of playing a cash game for free ($F(1,73) = 4.5, P = .04$) and for the online or phone support for gamblers ($F(1,73) = 8.9, P = .004$). By contrast analysis, websites that offered these options appeared to have a higher global prevention score (4.5 and 5.2, respectively, vs. 2.9 and .8 for those that did not). There was no statistical between-group difference for the other factors, namely, information about legal context, explanation about poker rules, first deposit for free, and availability of a forum.

Discussion

The results of the study show that prevention strategies are very poor among poker websites. The results are in accordance with previous studies on Internet gambling and social responsibility (Smeaton and Griffiths 2004), as well as with studies on the quality of content on gambling-related information websites (Khazaal et al. 2008). It appears from the present study that the most commonly offered prevention was “warnings related to the risk for pathological gambling” (Pr1: 48.6%), present for less than half of the studied websites. Information regarding the legal context was also offered in less than 50% of the sites.

Furthermore, the present study shows that a substantial portion of the websites provided explanations about several poker strategies that included very favorable comments about the strategies. These comments pose a possible risk of increasing some previously described belief fallacies in the more vulnerable poker gamblers by overvaluation of the efficacy of the strategy (Linnet et al. 2011).

It also appears from the present study that encouragement to gamble, such as a first deposit for free and a bonus, was common. This observation, coupled with low prevention scores, may lead to concerns about the safeguards and security offered to players, particularly for more vulnerable persons. In order to promote responsible gaming, websites need at the very least to apply the prevention assessment criteria suggested in the present study (warnings related to the risk of pathological gambling and information related to this condition, as well as self-assessment testing; information about off-line and online medical and psychological resources for gambling issues, as well as links to helping organizations; the possibility for the consumer to choose time or spending limits).

In addition, information related to the legal context of online gambling should be added, as well as a clear statement about the website owner. Comments about information related to poker strategies should be made more carefully. In this last area, a lack of comments is probably also understood by some players as being a positive comment. Moderation of the comments about the usefulness of the strategy may be more helpful. Despite their primary purpose of monetary profit, poker websites may have an interest in developing a social responsibility policy (promotion of responsible gaming and prevention policy), at least for marketing purposes (better image). This could probably be done in accordance with the propositions presented in this study. The Internet offers a worldwide tool that allows people to gamble on websites originating from countries with various legal contexts. In the absence of a worldwide legal context and in consideration of the lack of prevention strategies actually offered by most of the Internet poker websites studied, consumers may be reached in other ways, such as through clinicians, prevention organizations, and gambling information websites.

Differences found between French and English websites were possibly due to cultural differences related to the use of the Internet (more forums and more contact with the webmaster for French sites; more chat rooms for English sites) and possibly to differences

in commercial concepts. The English websites offered information in a wide range of languages, suggesting larger client recruitment. They also more frequently offered the first deposit for free, a possible way to attract new clients. In parallel, the English websites more frequently added information related to the legal context of online gambling and tended to score higher on the global prevention score, a possible reflection of differences in marketing strategies. Despite these differences, however, English and French websites had low prevention scores.

The main limitation of the present study was the lack of a complementary assessment of the gamblers. Further studies are needed that include such an assessment of Internet gamblers for psychological and gambling-related variables. Because of the growing success of online poker, it has become urgent to improve these websites by adopting some of these suggestions and possibly by using tools to provide warnings and feedback to gamers, as developed elsewhere (Griffiths et al. 2009).

Conflict of interest None.

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