



Experiences of Playscan: Interviews with users of a responsible gambling tool



David Forsström^{a,*}, Markus Jansson-Fröjmark^{a,b}, Hugo Hesser^c, Per Carlbring^a

^a Department of Psychology, Stockholm University, Stockholm, Sweden

^b Centre for Psychiatry Research, Department of Clinical Neuroscience, Stockholm, Sweden

^c Department of Behavioural Sciences and Learning, Linköping University, Linköping, Sweden

ARTICLE INFO

Article history:

Received 3 February 2017

Received in revised form 21 March 2017

Accepted 22 March 2017

Available online 23 March 2017

Keywords:

Responsible gambling tool

Qualitative study

Thematic analysis

Usage

Feedback

ABSTRACT

Online gambling, encompassing a wide variety of activities and around-the-clock access, can be a potential risk factor for gamblers who tend to gamble excessively. Yet, the advent of online gambling has enabled responsible gambling (RG) features that may help individuals to limit their gambling behaviour. One of these features is RG tools that track gamblers' behaviour, performs risk assessments and provides advice to gamblers. This study investigated users' views and experiences of the RG tool Playscan from a qualitative perspective using a semi-structured interview. The tool performs a risk assessment on a three-step scale (low, medium and high risk). Users from every risk category were included. Twenty interviews were carried out and analysed using thematic analysis. Two main themes with associated sub-themes were identified: "Usage of Playscan and the gambling site" and "Experiences of Playscan". Important experiences in the sub-themes were lack of feedback from the tool and confusion when signing up to use Playscan. These experiences counteracted positive attitudes that should have promoted usage of the tool. Providing more feedback directly to users is a suggested solution to increase usage of the RG tool.

© 2017 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Responsible gambling (RG) features involve interventions that reduce the potential harmfulness of gambling (Blaszczynski et al., 2004; Ladouceur et al., 2016b). These features include, among others, limit setting, self-tests to assess the level of gambling problems, self-exclusion in different settings (both online and land-based) and warning systems that alert users if a gambling session is long and/or involves high spending. Features also include updates on current and past expenditure on gambling (Blaszczynski et al., 2011). The advantage of these features is that they have the possibility to reach many gamblers at different levels of risk. However, most of these features have only a low to moderately high effect (Williams et al., 2012). Also, many problem gamblers do not seek psychological treatment (only 5–12%) (Slutske, 2006; Suurvali et al., 2008) even though treatments have been found to be effective according to several meta-analyses (Gooding and Tarrier, 2009; Yakovenko and Hodgins, 2016; Yakovenko et al., 2015). There is therefore a need to investigate the reasons for lack of treatment seeking but also, more importantly, to further research the use and efficacy of RG

features, because these might prove to be the best tools in limiting excessive gambling behaviour on a large scale.

Another reason for investigating RG features is that gamblers seem to have a positive attitude toward them. Gainsbury et al. (2013) found that gamblers ($n = 10838$) viewed RG features as useful. Also, a review of pre-commitment concluded that gamblers have a positive attitude toward this specific feature (Ladouceur et al., 2012). Moreover, patrons of a gambling venue had a positive attitude toward features that were card based (Nisbet, 2005).

Besides the extensive review on prevention by Williams et al. (2012), two other reviews have focused on the effect of RG features. In the review by Ladouceur et al. (2016a), rigorous inclusion criteria were used and included both land-based and online based RG features. The review reports a decline in studies about the effect of RG features over the past three years. The review also found five major RG strategies mixing studies conducted on land-based and online populations. The review, by Harris and Griffiths (2016), focused on electronic gambling (Internet-based gambling and electronic gambling machines), and the results from their study is more relevant to the present study. The review concludes that studies investigating breaks in play showed mixed results regarding whether breaks could be beneficial if they were accompanied by RG messages. The results from different types of messaging on Electronic Gambling Machines (EGMs) were mixed, which is in line with the review by Monaghan (2008). Note acceptor

* Corresponding author at: Department of Psychology, Stockholm University, SE-106 91 Stockholm, Sweden.

E-mail address: david.forsstrom@psychology.su.se (D. Forsström).

prohibition is an RG measure that shows promise. Limit setting is of special interest for our study, and the results of the studies included in the review suggest that it can have a moderating effect on online gambling. Behaviour tracking studies will be presented in more detail in the following segments of this introduction.

The main focus of this study is RG tools. The tools are online-based and provide feedback on gambling behaviour (assessment of risk) and also advice or on how to limit time and money spent on gambling. This introduction will mainly focus on the research on the different components included in RG tools: risk assessment, online interventions without behaviour tracking and research on RG tools and feedback.

1.1. Risk assessment based on gambling data

Adami et al. (2013) investigated the use of behaviour tracking to estimate risk. The results showed that adding sustainability markers (intervals of intense activity and rapid drops in betting) successfully identified individuals at risk. Philander (2013) used detection algorithms to analyse gambling data and found that neural networks was the best approach to estimate problem gambling. A cluster analysis ($n = 530$) identified a sub-group characterised by high intensity, high frequency gambling and high variability of bet sizes (Braverman and Shaffer, 2012). This sub-group had a higher risk of gambling problems when closing their online gambling account than other sub-groups identified. Dragicevic et al. (2011) identified online gambling intensity and frequency during the first month after signing up on a gambling site as potential risk behaviours in a sample of 546 gamblers.

A different approach was used in two studies trying to identify future excessive gamblers. Complaint emails from users ($n = 300$) were analysed by gambling company employees who managed to successfully identify future excessive gamblers (Haefeli et al., 2011). In the second study, software was used to analyse the same type of communication in the same sample as in the previous study. The results showed that a combination of ratings performed by employees and automated text analysis was the most effective way to detect future excessive gamblers (Haefeli et al., 2014).

1.2. Internet-based programmes without behaviour tracking

Cooper (2004) explored the effect of an Internet-based programme based on peer support to aid problem gamblers while attending Gamblers Anonymous. Seventy percent of the 50 gamblers included reported that the peer support programme had a positive impact on their gambling behaviour. Easy access was an important factor for use among these gamblers. Wood and Griffiths (2007) explored the use of GamAid for 413 users. The service supplied advice and guidance and served as a signposting service where gamblers could chat and receive information to help reduce their gambling. The service provided was considered to be satisfactory by a majority of the participants. They viewed GamAid as helpful in finding a way to seek help and to choose strategies to reduce their gambling. Another study focusing on online peer support groups ($n = 140$) showed that gamblers felt less alone with their problems when using these groups (Wood and Wood, 2009). Rodda et al. (2015) conducted a qualitative investigation of web-based single session counselling. The study participants ($n = 85$) sought immediate counselling in a time of crisis. The gamblers viewed online counselling as a viable source of help. These four studies provide tentative evidence for online interventions to decrease gambling. However, the small samples included in these studies make it hard to draw far-reaching conclusions. Also, most of the studies lack a user perspective, which limits ways of making improvements to the interventions.

1.3. Behaviour tracking tools (RG tools)

RG tools encompass behaviour tracking, risk assessment and the provision of feedback. The tools can also offer strategies to reduce

gambling. For over a decade, these tools have been regarded as a possible countermeasure to excessive gambling (Błaszczynski et al., 2004). However, one difference between online programs that try to prevent other harmful behaviours (e.g. smoking) and RG tools is that RG tools are available on the site where the potentially harmful behaviour takes place. Also, RG tools have no established end point, since gambling behaviour is continuous and fluctuates over time.

Two RG tools, Mentor (study sample was 1015 with 15,216 as matched controls) and Playscan (study of 779 participants with 1558 matched controls), have proven to be effective in reducing gambling behaviours such as money deposited, money bet and total time spent on gambling (Auer and Griffiths, 2015; Wood and Wohl, 2015). These two studies support the notion that RG tools can be used to limit online gambling behaviour. However, use of the tool was not included in the analysis, which makes it hard to draw any inferences regarding what produced the reduction and how the efficacy of the instrument can be improved.

Apart from Auer and Griffiths (2015) and Wood and Wohl (2015), research focused on RG tools is scarce. To date, Playscan has been the focus of two other studies. Users of the Swedish state-owned gambling company Svenska Spel's gambling site were surveyed. One aim of the survey was to explore the use of Playscan. Of the 2348 people that answered the survey, 594 had voluntarily opened a Playscan account. The main reason reported for joining Playscan was curiosity (Griffiths et al., 2009). There was no reported change in their risk level after joining Playscan (89% experienced no change). The conclusion was that this was a consequence of low risk ratings among the participants. Also, many respondents found Playscan to be useful (Griffiths et al., 2009). Even though Griffiths et al. (2009) provided some insights into user behaviour in relation to Playscan, the reasons for usage and non-usage were not explored. The second study focused on user behaviour. One finding was that there was high initial usage of the different functions of Playscan but a low degree of repeated usage (Forsström et al., 2016). Also, Forsström et al. (2016) identified, via latent class analysis (LCA), five user classes based on the 9528 participants' use of the different functions of the tool. The classes were self-testers, multi-function users, advice users, site visitors and non-users. The self-testers and the multi-function users had a higher risk of developing gambling problems and a higher use of the tool compared to the advice users, site visitors and non-users, according to a multinomial regression that was performed in conjunction with the LCA.

1.4. Use of other web based services focused on e-health

Low usage of web-based services can be found in unguided e-health areas in general. In Wangberg et al. (2008) and Wanner et al. (2010), low usage and high attrition were found in interventions promoting diabetes care ($n = 90$), smoking cessation ($n = 618$) and recording symptoms over time and receiving help to facilitate beneficial behaviours ($n = 218$) as well as physical activity (data sample was 110776 visits to the site). Using a regression model, a review by Kelders et al. (2012) focusing on adherence to interventions which included 101 articles covering 83 interventions within the fields of chronic disease (19 studies), lifestyle (16 studies) and mental health (48 studies) found that more frequent updates improved adherence.

1.5. Previous focus of online RG studies in relation to the current study

Most of the studies that have been carried out exploring online RG features have focused on gambling patterns, risk assessment and the effects of RG features on a group level using quantitative techniques. There is a need for different types of studies investigating the individual use of these features from a qualitative perspective.

The studies by Griffiths et al. (2009) and Forsström et al. (2016) have explored Playscan from two different perspectives: self-report data and user behaviour on a group level. These two perspectives have added

vital information about this type of RG feature, but many questions remain. These two studies in combination with the studies by Wood and Wohl (2015) and Auer and Griffiths (2015) have raised new questions. Aspects of using the tool, such as reasons for joining, which features are used and how the features are used are pertinent to explore. Adding a qualitative perspective could be a first step toward exploring these aspects. Another important aspect is that there is a need for more studies investigating RG features that are accessible at a gambling site. Users have the opportunity to get help while gambling, and how they perceive and use this opportunity needs to be investigated further. To gain insight into users' views and experiences of using Playscan is therefore important for the continued development of online RG features.

1.6. Aim

The aim of our study was to explore users' view and experiences of the RG tool Playscan from a qualitative perspective. The main question addressed in the study was *What were users' views and experiences of using Playscan?* How users utilised the tool, how they experienced their use and how this related to their gambling were areas addressed. The end goal was to identify a hypothesis for usage and/or non-usage of Playscan. This hypothesis can be used as a starting point for future studies investigating the use and efficacy of this type of intervention.

2. Method

2.1. Description of Playscan

Participation in Playscan was voluntary for users of Svenska Spel's gambling site (more information about Svenska Spel can be found here: <https://om.svenskaspel.se/in-english/>). The main goal was to help at-risk gamblers reduce time and money spent on gambling. The theoretical basis was the Stages of Change Model (Prochaska et al., 1993) and Motivational Interviewing (Miller and Rollnick, 2002).

A risk assessment, communicating the assessment and providing advice were the three parts designed to achieve a reduction in gambling behaviour. When users logged in to the tool, they received their risk assessment automatically; they also received detailed information about their gambling habits to facilitate behaviour change.

The assessment distinguishes risk on a three-step scale. These three levels are represented by a "traffic light system" where a green light represents low risk, a yellow light represents medium risk and a red light represents high risk of developing an excessive gambling pattern. The risk was assessed weekly. The assessment contains two separate parts: results from a self-test and gambling data. The user can answer a self-test, called GamTest (Jonsson et al., 2017), on their gambling habits. The GamTest captures five dimensions of problematic gambling and contains 16 items. A high score on the self-test or spending a large amount of time and/or money will result in a yellow or red risk rating. To establish the limits for the different risk levels, the gambling patterns for users of Playscan were compared with the gambling patterns of all of the customers that had a loyalty card at Svenska Spel (over 1 million users). The risk levels were determined on the basis of different markers of excessive gambling (e.g. night owling, chasing losses and total spending).

2.2. Procedure

The participants included in the study were recruited with help from Svenska Spel. The company sent out an email with information about the study. The content in the email and subsequent information was prepared by the researchers responsible for the study. To ensure that the potential participants had experience of Playscan and were active users of the gambling site, the customers had to be registered Playscan

users. In addition, they had to have gambled during the month prior to when the email was sent. The email only targeted users in the Stockholm area. The reason for this was that the face-to-face interviews were conducted at the Department of Psychology at Stockholm University. The goal was to recruit eight gamblers from every risk category.

After receiving the email, interested users could sign up on a web page. The page was separate from the gambling site and administered by the researchers. Users submitted their name, email address, phone number and risk level rating. The interested users were contacted via telephone by the interviewer (a psychology student trained in interview technique). The first users to sign up were contacted by the interviewer. The selected participants received more information about the study and a time for the interview was decided on. After the phone call, the selected participants were emailed a screening questionnaire containing the Problem Gambling Severity Index (PGSI) (Ferris and Wynne, 2001) and questions on their gambling habits.

The email was sent out in two waves. The first wave targeted 200 users. The quota of eight green users was filled, but only one yellow and one red user were recruited as a result of that email. Since one yellow and one red user signed up when the first 200 users were targeted, the next email targeted 1473 users so that the quota for yellow and red users would be filled, and the wave resulted in filled quotas.

After the recruitment, three telephone interviews were carried out to pilot test the interview guide. The interview guide contained 13 open-ended questions on participants' gambling habits and their experiences of Playscan (Appendix 1). The questions focused on participants' general views of Playscan, how the participants joined and how they had used the tool. Minor changes and additions to the interview guide were made after the testing. The test interviews were not included in the analysis.

One yellow participant did not attend the scheduled interview. The interviewer tried repeatedly to set up a new appointment without success. That participant was excluded. No more users with a self-reported yellow risk rating were left among the users that had signed up. Thus, only six yellow users were interviewed. As a consequence, the sample that was interviewed face-to-face was limited to 20 participants (see Fig. 1 for a flow chart of the recruitment procedure). The interviews were conducted in Swedish (the quotes used in the results section were translated by a Swedish translation service which is certified to EN 15038, ISO 9001:2008 and ISO 14001:2004). The mean length of the interviews was 33.78 (SD = 14.96) minutes. The participants received 500 Swedish krona (SEK), approximately \$55, for their participation.

2.3. Attrition

Three users with a green risk rating declined to be interviewed, as they did not want to travel to the location of the interviews.

2.4. Participants

2.4.1. Sample characteristics

The sample characteristics are presented in Table 1. The sample contained 19 men and one woman (with a yellow risk rating).

Four of the participants (20%) were single, while 16 participants (80%) had a partner. Six participants (30%) had no children, while 14 participants (70%) had a child/children. Two participants (10%) had nine years of education, while 10 participants (50%) had 12 years of education. Eight participants (40%) had attended university. Twelve participants (60%) were employed full time, four participants (20%) part time and three participants (15%) unemployed. One participant (5%) declined to answer this question. There was no difference between the different risk categories in regards to their demographic status. However, red users did have a higher mean PGSI score.

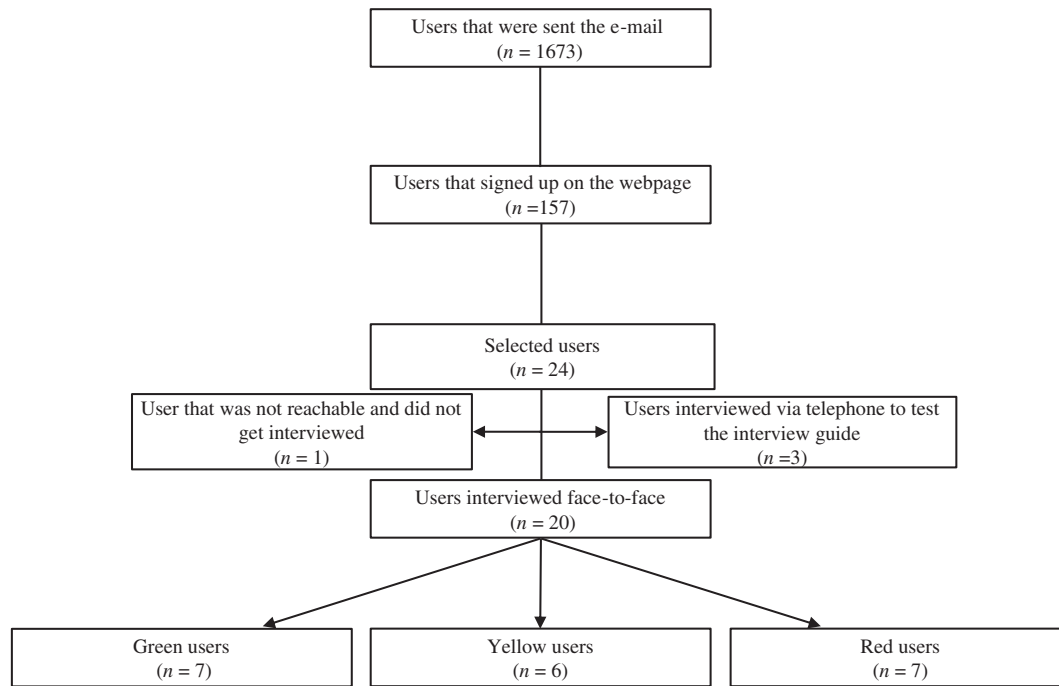


Fig. 1. Flow chart of the recruitment.

2.4.2. Description of gambling activities in the sample

Fifty percent of the participants had sports betting as their main gambling activity. The participants bet on several matches and placed their bets on one or more occasions every week. The main sport was soccer.

Forty percent of the sample had playing the lottery as their main gambling activity. They played the lottery every week. They had one or more long-running systems of numbers over several weeks.

Ten percent of the participants had online poker as their main gambling activity and played every week. The poker players saw this as a skill-based game and they were aware of the risk potential of poker.

All of the participants also engaged in other gambling activities intermittently when there were big sporting events such as the Olympics.

2.5. Analysis

The interviewer and the first author transcribed the interviews verbatim. The first author carried out the analysis. Thematic analysis was selected for analysing the interviews. This method was chosen because it was thought to best be able to describe the experiences of the participants. The rationale behind the choice of using this specific analytic technique was that it would suit the exploratory nature of the study. Also, since there were different groups (green, yellow and red users), thematic analysis was the most flexible analytic stance if these three groups would have had different experiences of the tool. Thematic

analysis was thus seen as the best choice for accomplishing the aims of the study. Thematic analysis has been successfully applied in previous studies within the field of gambling (Dunn et al., 2012; Palomäki et al., 2013; Patford, 2009). Also, thematic analysis was used in Wood and Griffiths (2008) with a similar population with a successful outcome.

The analytical procedure followed the six steps proposed by Braun and Clarke (2006). The analysis was inductive and focused on the semantic content in the interviews. The six phases consisted of reading and re-reading the interviews (the interviews were read according to risk level), coding interview content, finding themes, reviewing themes, developing and expanding the themes and, as a last step, the themes were written up and quotes added. The themes were based on “internal homogeneity” and “external heterogeneity”, meaning that the themes should be coherent and separated from each other. For a more detailed description of these different phases, see Braun and Clarke (2006).

There was a range in the answers given within the identified sub-themes. The classification introduced by Hill et al. (2005) was used to describe the different experiences within a given sub-theme. If answers were seen as *general* (in our study 19–20), everyone but one in the sample had endorsed that view. If the answers were *typical* (10–18), it included more than half the sample. A *variant* (4–9) meant that less than half had endorsed the experience and covered the sum of answers to *rare* (2–3), which represents two or three cases. It was only the classification that was used from the method described in Hill et al. (2005). This classification was used in a similar way in Regev et al. (2016) and Di Blasi et al. (2016).

Table 1
Socio-demographics for the included users.

	Number of users	Mean age (SD)	PGSI (SD)	Money (SEK) spent on gambling per month		Mean time (hours) spent on gambling per month		Monthly income (SEK)	
				Mean (SD)	Median	Mean (SD)	Median	Mean (SD)	Median
All of the participants	20	42.15 (12.70)	2.65 (3.36)	2027 (4388)	650	7.83 (8.42)	5	22,658 (12,437)	24,667
Green users	7	40.57 (10.23)	1.71 (2.36)	621 (424)	533	8.00 (6.45)	8	26,071 (15,439)	27,000
Yellow users	6	42.17 (17.10)	2.00 (2.10)	4650 (7576)	1750	6.33 (11.66)	2	20,000 (5665)	22,000
Red users	7	43.71 (12.53)	4.14 (4.74)	1186 (1714)	500	8.90 (8.11)	7	21,333 (14,473) (one missing value)	24,667

Note: PGSI = Problem Gambling Severity Index; SEK = Swedish krona.

2.6. Ethical considerations

Written informed consent was collected from the participants before the interview. The interviews together with the questionnaires that the participants answered were assigned numbers, leaving no way of identifying the included users. The participants received extensive information about the study to ensure that they understood what their participation entailed.

The respondents received monetary compensation for their participation. Usually a voucher is offered as compensation, as in Hing et al. (2016). In this case, however, a voucher was deemed insufficient compensation since the participants had to travel to Stockholm University, as well as fill out a questionnaire.

An ethical question is whether the monetary compensation encouraged the respondents to gamble with the money they received and whether this increased their distress. Fourteen participants scored two points or less on the PGSI. These participants had some risk, but the compensation should not have increased their distress. Three respondents had a score of five points, one had six points, one had nine points and one respondent had 12 points. These six individuals had a self-reported gambling behaviour associated with risk and might have seen the compensation as a way to receive more money for gambling. Any adverse effect, however, was probably limited since the respondents did not receive money straight after the interview. They had to wait several months for compensation and were informed about this when signing up. The same procedure was applied when compensating the three respondents who participated in the pilot interviews.

3. Results

Two main themes with adjoining sub-themes were identified. The main themes were “Usage of Playscan and the gambling site” and “Experiences of Playscan”. The main themes with sub-themes are presented in Table 2.

The number accompanying each quote represents the participant. The colour represents the participants' risk rating (P stands for participant and I for interviewer).

The analysis focused on how the participants used Playscan in relation to their gambling activity and risk level. Risk level did not determine use of Playscan nor had an impact on the themes that emerged from the analysis. This was something seen across the three risk levels.

The experiences of the participants were not shared across sub-themes. The experiences presented in the themes were limited to a specific sub-theme. Even though some participants engaged in the same gambling activity, they had individual pathways regarding their use of

Playscan. There was thus an absence of commonalities between participants with the same risk level or gambling activity.

3.1. Usage of Playscan and the gambling site

The sub-themes included in this main theme involved how the participants used Playscan and the Svenska Spel gambling site.

3.1.1. Interaction with the tool

In general, there was not a high level of repeated use of the functions. A proportion (*rare*) of the participants had not even logged in to the tool. The reason for this was that the users did not know that they had joined Playscan.

In general, the participants had answered the self-test, and some of the users only answered it once. The reason for answering the self-test was to receive information about their risk level. If they received a low risk rating, interest in answering another self-test was low. Some (*rare*) of the participants answered a second or third self-test. A proportion (*rare*) of the sample used the advice function of the tool. One participant commented in the following way:

“Yes, but I mean I think maybe I did it [self-test] later on as well. No, maybe, I think I did it once when I joined, and then a month later...”

No. 12 (Green)

3.1.2. Participants' views on their lack of repeated use

A general answer from the participants was that they had not received sufficient feedback on their gambling behaviour. However, the participants did receive promotion emails from the gambling company. This made the participants assume that feedback was going to be emailed. This resulted in a proportion (*rare*) of the participants thinking that they were not still a user of the tool since no information had been had been sent to them. Also, participants were of the opinion that they did not need to use the tool. One individual had the following comment:

“...Yes, I'd actually forgotten I'd been involved in that when I received the email from Svenska Spel...”

No. 5 (Yellow)

3.1.3. Usage of Svenska Spel's gambling site

A general proportion of the participants prepared their lottery numbers and which matches to bet on in advance. The participants acted as if they were going to place their bets at a land-based venue. They gambled online because it was easier and more convenient. The participants did not stay on the gambling site for a long time when placing their bets; as a result, the participants generally did not take part in any additional content on the site. One participant had the following comment about using the site:

“...Of course I have some standing keno [a game similar to the normal lottery with a numbers draw] rows, for example, and lottery numbers that I use, the ones you use every time, and I only use the Internet when I...”

No. 11 (Red)

3.1.4. RG features on the gambling site

In general, the participants viewed the tool and other RG features as a part of the gambling site. The participants did not distinguish between Playscan and the other features on the gambling site. There was

Table 2
The main themes and associated sub-themes.

Usage of Playscan and the gambling site	Experiences of Playscan
Interaction with the tool	Reasons behind joining and ways that the users joined the responsible gambling tool
Participants' view on their lack of repeated use	Understanding the purpose of the tool
Usage of Svenska Spel's gambling site	Views on Playscan's ability to change gambling behaviour
Responsible gambling features at the gambling site	The perceived tone of the information issued by Playscan
	The users' views and experiences of the reliability of the risk assessment
	Changes in gambling behaviour after joining the responsible gambling tool
	Changes in attitude after joining the responsible gambling tool
	Suggestions regarding improving the tool

confusion over the general purpose of these features. One participant commented on limit setting (which is not a part of Playscan) as follows:

P: “The second thing I know I did voluntarily. Setting limits so I have more structure to my gambling – I did that voluntarily”.

I: “Voluntarily, what do you mean? You mean that...”

P: “Yes. That I kept track of my gambling, just like now”.

No. 1 (Red)

3.2. Experiences of Playscan

The second main theme focused on the users' experiences of the tool. The sub-themes that belong to this main theme focused on aspects of the perceptions, use and experience of Playscan.

3.2.1. Reasons behind joining and ways that the users joined the RG tool

A *typical* answer was that the participants joined out of curiosity. This curiosity was different among the participants. A proportion (*rare*) of the participants did not know how they became a user. They were curious about their gambling habits and answered the self-test, which made them join automatically. One participant answered:

“Curiosity. To see what it was. Wanted to see what it was”.

No. 4 (Yellow)

A *variant* answer was that they intentionally joined the tool to get a risk assessment. They wanted to be certain that their gambling habits were not excessive or wanted to make sure that they were gambling at a level that was not associated with risk.

A *rare* answer was that participants joined the tool when exploring the gambling site. They joined because they wanted to explore every function of the site. Another answer given related to joining was as follows:

“So I suppose it was just to check how you, like where it [Playscan] thinks you're at and what level you are, and what it thinks you, well, what scale you're on. You might see the bitter truth, how it works, or how you... what it thinks. Or what it thinks about me, in case...”

No. 2 (Red)

3.2.2. Understanding the purpose of the tool

A *typical* answer was that the participants understood that the purpose was to assess and to help limit what the participants labelled as “dangerous gambling behaviour”. The definition of “dangerous gambling behaviour” was when an individual spends too much money. The purpose was also seen in light of the other RG features on the site. As stated previously, the participants did not distinguish between different features. A *variant* of the participants did not have a clear grasp of the purpose. They understood this as a consequence of receiving little information about the tool. One participant (from the *typical* group) answered as follows regarding the purpose of the tool:

“...I read and understood that it was... It was about preventing too much gambling. Yes, gambling addiction or tendencies in your gambling. That was it...”

No. 6 (Yellow)

3.2.3. Views on Playscan's ability to change gambling behaviour

A *general* view was that Playscan could change gambling behaviour. The idea behind Playscan was also perceived as beneficial. The mechanisms that would produce this change were described as a wake-up call and/or that gamblers would be scared if they received a high risk rating. The participants did not see themselves as the primary target for this. They referred to individuals who they knew were worse off in terms of excessive gambling behaviour and that these individuals could benefit from using Playscan.

“It probably scares people... It probably makes people cut back on gambling, I think...”

No. 11 (Red)

3.2.4. The perceived tone of the information issued by Playscan

A *variant* of the sample had come in contact with content from the tool in some way, either via messages from the tool and/or information about the tool.

Of these, a *variant* of the participants described the tone as neutral, straightforward and even boring or banal. The perception of the tone did not influence use in any way.

One answer given was as follows:

P: “...it would have been OK, otherwise you'd probably have...”

I: “Otherwise you'd have remembered it?”

P: “Yes. I think so”.

No. 7 (Yellow)

A *rare* answer from the sample was that they found the tone to be too harsh and accusing. These participants did not agree with the received risk rating. This affected the use of the tool in a negative way. One participant had the following view:

“It was a little. It was a little. It depends on your mood. It felt accusatory, maybe harsh. But only a bit”.

No. 6 (Yellow)

A proportion (*rare*) of the participants had a positive experience with the communication. They found the information easy to read and well-written. From the participants' perspective, this made the content easy to grasp and reflect upon. This experience encouraged them to use the tool. One participant answered with the following:

“...So you mean the written tone. I mean I think it was good, easy to read and very well written; there were no problems with it”.

No. 2 (Red)

3.2.5. The users' views and experiences of the reliability of the risk assessment

A *variant* of the sample saw the assessments as reliable and fair. They saw the self-test as the main part of the assessment and commented on the questions. They thought that the questions were repetitive and that they should change from time to time. However, the participants did not have a detailed understanding of the basis for the risk assessment. One experience of the risk assessment was the following:

“Yes, I do. If it went, if it shows, red, for example, if it exceeds the limit, then you can take a moment to check back. So you don't risk anything, lose control of your gambling”.

No. 5 (Yellow)

A proportion (*rare*) of the participants did not think the assessment was reliable. They saw the high assessment as an insult and reacted strongly to it. Different explanations for the high assessment were given. It was explained by other circumstances in their life and not with their gambling behaviour. One participant had this to say:

“... It is pretty blunt in some way. You receive a rough estimate, but it is someone else's opinion”.

No. 7 (Yellow)

A *variant* of the participants did not answer questions on the assessment, because they had not reviewed their risk assessment (they commented on not receiving an assessment).

3.2.6. Changes in gambling behaviour after joining the RG tool

A *typical* answer was that the participants did not experience any change in their gambling behaviour after joining. Many did not think that they needed to change their gambling behaviour. It is also important to note that joining Playscan was not primarily to change behaviour but for the participants to understand their gambling habits. There was limited repeated use of the tool after joining. This might have influenced the tool's ability to facilitate behaviour change. One participant commented on this subject as follows:

“I mean, of course I've slightly reduced how much I play, because I think it feels unnecessary. But I don't think it's due to Playscan at all”.

No. 13 (Green)

A *rare* answer among the participants was that they had reduced their gambling. Reasons for reducing the time and/or money spent on gambling were changes in life circumstances, such as starting to study, finding a partner or having children. They did, however, see Playscan as a small contributing factor behind the change. It was the risk assessment and feedback on the risk assessment that facilitated it. The change was carried out by the individual, and Playscan's function was as a catalyst. One participant made the following statement about their change:

“...I mean, yes, now you're a bit older, too, when you're younger you're more, you know, you take more risks and things, so I think I've changed my gambling habits. Because when you're younger it's not the same at all. Then it was much wilder, so I think it's changed, my gambling”.

No. 2 (Red)

3.2.7. Changes in attitude after joining the RG tool

A *typical* answer was that they did not experience a change in attitude toward their own gambling. One common attitude was that they were skilful gamblers who eventually won. Since most participants had gambled for a long time, this attitude seemed to be the way they perceived their gambling. One participant's comment regarding this was as follows:

“I don't think I learned anything new from seeing the results of the tests [the self-test] I did. I think I still have that much self-awareness”.

No. 10 (Green)

A proportion (*rare*) of the sample experienced a change in attitude over time but did not attribute this to Playscan. The change in attitude was to see gambling in a more negative light. The function of gambling as a pastime was no longer important. Changes in life circumstances were the reason behind the change in attitude.

3.2.8. Suggestions regarding improving the tool

A *general* view was that participants wanted to receive more feedback on their risk assessment and gambling habits. They all saw this as something important despite the fact that some participants had a negative opinion of some of the functions of Playscan. They requested this feedback via email and/or text message. The use of pop up-messages reminding participants of Playscan when logging in to the gambling site was also endorsed. The participants wanted tailored feedback that was targeted toward their gambling patterns. All of the participants commented on the need for more feedback. Many mentioned feedback on several occasions during the interview, and this was the most discussed topic of all. One participant said the following:

P: “...So feedback, send an email, we see you're playing a little bit more. Over the limit there... Then you've still been seen”.

I: “If you receive an email saying you're showing as red, should you open it?”

P: “Yes, you probably should. Of course, it makes you curious...”

No. 17 (Red)

4. Discussion

The aim of our study was to explore participants' views and experiences of Playscan from a qualitative perspective. Two main themes emerged from the analysis. These main themes contained a number of sub-themes covering different experiences, such as usage of the tool, perceptions of the tool and changes in gambling behaviour and attitudes. The participants had a positive view of the tool's content, which should have promoted use. However, repeated use of the tool was low. The lack of feedback and the fact that some users did not understand that they had joined the tool limited use. Also, that users spent a short time on the gambling site limited use. The positive view of the tool among the users and the lack of repeated use of the tool underscore a paradox that warrants further exploration. The results discussed are applicable for other types of tools working with similar feedback structures.

4.1. Exploring the user paradox

The participants joined Playscan because they were curious about the tool or wanted an assessment of their gambling. This is in line with Griffiths et al. (2009), who reported that 47% of the users joined the tool out of curiosity, 12% joined the tool because of concerns that they gambled too much and 11% wanted to understand their gambling behaviour. However, the initial curiosity among our participants did not encourage them to use Playscan repeatedly.

A majority of the participants considered the risk assessments to be reliable and fair. This provides face validity for Playscan's assessment. Previous studies (Adami et al., 2013; Braverman and Shaffer, 2012; Dragicevic et al., 2011; Haeusler, 2016; Percy et al., 2016; Philander, 2013) have examined different types of gambling patterns and how they relate to risk or self-exclusion. The studies validated that gambling data can be used to identify high risk behaviour and to identify self-

excluders. However, this is the first study where users who received an assessment commented on its validity. This provides further evidence of the use of risk assessments based on gambling data. The question that remains concerning risk assessment based on gambling data is what should form the basis of this assessment.

Furthermore, the participants viewed the communication from Playscan as neutral or positive. The experience of the communication in combination with the face validity of the risk assessment and the fact that the participants thought the tool could change gambling behaviour should function as facilitating factors and promote extensive use of the tool. In addition, most users understood the purpose of Playscan.

That the participants had a positive view of the tool and its functions is in line with previous studies (Gainsbury et al., 2013; Ladouceur et al., 2012). The users did not comment on any difficulties with the features included, indicating that they found it easy to use, which is in line with Griffiths et al. (2009), where nine out of 10 users were of that opinion.

However, the users did not use the functions of the tool repeated times. The participants answered the self-test and explored the tool but were not repeated users. The lack of repeated use can be attributed to the fact that some users were not aware that they had signed up with the tool. In Forsström et al. (2016), 758 users (7.9% of the included sample) did not use Playscan. This can perhaps be explained by the finding in our study that some of the participants did not know that they were members of the tool.

There was a lack of direct feedback to the users. The idea that lack of feedback hinders use is also present in research investigating other types of Internet interventions (Kuijpers et al., 2013; Nijland et al., 2008, 2011). The described paradox was further enhanced, because the participants spent a short time on the gambling site. There may also be another reason for the limited repeated use. The participants themselves reported their risk. There is a possibility that participants might have been inaccurate when reporting their risk level. If they had a lower risk level than their self-reported level, they might not have felt a need to use the tool. Even so, lack of feedback seemed to determine use to a high degree.

The majority of the participants did not report major changes in attitudes or behaviour that was attributable to Playscan. The participants commented that the changes in attitude and behaviour were due to other factors such as life changes and other interests becoming more important. The lack of change and change due to reasons other than Playscan are understandable as a result of the paradox explained earlier.

At the heart of the user paradox is a question that is warranted to pose: *What does "good" look like in terms of use of the tool?* What the question implies is how much a gambler has to use the tool to facilitate a change in gambling behaviour. One partial answer that stems from this study is that low repeated use is not good enough. A major criticism and conclusion is that the current version of the tool does not facilitate behaviour change in the most effective way. However, there are ways to improve Playscan and similar tools to become more effective.

Another important point is that a potential benefit of the positive attitudes toward the functions in Playscan entails that participants remained users of the tool and, thus, had the possibility of resuming use of the tool if they wanted to.

4.2. Ways to bridge the paradox

One way to bridge the paradox is to improve the ways of providing feedback and the frequency of feedback. The majority of the participants viewed more feedback as a way of improving the use of Playscan. Several suggestions were put forward. Pop-up messages when logging in to the gambling site and emails and/or text messages being sent to the users were two suggestions put forward by many of the respondents. Besides the benefit that gamblers might reduce their gambling when receiving feedback, this would also contribute to the user's experience of

being a part of the tool. The suggestion regarding feedback is corroborated by research within the field of gambling and related areas (Auer and Griffiths, 2016; Kelders et al., 2012; Martens et al., 2015; Neighbors et al., 2015).

The users themselves can bridge the paradox if they feel a strong need to change their gambling behaviour. In Forsström et al. (2016), high risk users used the tool more than users with low risk. High usage in Forsström et al. (2016) was explained by "perceived need". This is a concept discussed in Andersen (1995), meaning that use of services is based on need, something which receiving a high risk assessment from the tool would constitute. However, high risk users in our study did not use the tool more than the green users. The participants apparently did not experience this need, which contradicts previous results. It may be that the red and yellow users in our study were not representative of the total sample of red and yellow Swedish Playscan users. This might be a partial explanation for the lack of repeated use among yellow and red participants.

4.3. How the participants used the tool and the gambling site

Many of the participants answered the self-test, and it seems to be a gateway to joining. This result is in line with Forsström et al. (2016). Two of the identified latent classes had use of the self-test as a main component. The result from our study and the result from Forsström et al. (2016) underscore the importance of the self-test.

Also, the respondents used the gambling site in an analogue manner. The manner that the users had when gambling offline is continued when they gambled online. This is important when promoting Internet-based RG features, because users need individually tailored feedback.

4.4. Limitations

One limitation concerns the recruitment of participants. The email was sent to Playscan users in Stockholm, and the participants volunteered to take part. This might have resulted in a bias in the selection of participants, which might have had an impact on the answers given. Taking the first participants that signed up and that users received 500 SEK for participating might have added to the bias. Gamblers, who had time to be interviewed, were early adopters of Playscan or checked their email more frequently might have signed up faster than other interested users. The recruitment procedure might have limited the experiences shared by the participants, because users with different types of gambling habits and use of Playscan might not have been selected. This limitation might reduce the possibility of generalising the findings from the study to the entire Playscan population. However, the study included 20 participants. For example, the benchmark for thematic analysis in Braun and Clarke (2013) is 6–10 participants. Thus, interviews with 20 participants should cover the majority of the user experiences. Also, the emails targeted 1673 users who were selected at random from the relevant pool of gamblers. This might have lowered the risk of bias in the sample. Another limitation is the fact that only active users were selected. It is also important to investigate whether gamblers who no longer use the gambling site or Playscan had different experiences, since these gamblers might have used Playscan to limit or cease their gambling.

Also, even though the sample of 20 participants is relatively large for a qualitative study, the fact that only 6–7 participants were included from every risk level is a limitation since saturation from the answers stemming from each risk level might not have been fully achieved. However, since the answers were similar across risk groups, this limitation should not have influenced the end result of the analysis in a major way.

Another limitation is that the participants were asked to recall events from previous years. This might have made their answers unreliable. It is therefore possible that the participants might have

overestimated or underestimated their gambling and/or forgot parts of their use of Playscan. However, recall bias is a common limitation when doing qualitative research. There is a risk that when participants do not remember something during the interview, they tell the interviewer what they think the interviewer wants to hear about Playscan and thus act in a way that is line with social desirability, which is another general limitation of the qualitative method.

An additional possible limitation is the execution of the interviews and whether that in any way affected what the participants shared with the interviewer. Because the participants volunteered to do the interview, they should have had a positive attitude toward disclosing information. The interview guide had almost only open-ended questions, and the focus was Playscan, which should have limited feelings of shame and stigma among the participants. Also, the questions did not focus on problem gambling. These factors should have promoted a non-judgmental atmosphere where the participants did not feel the need to limit the information they disclosed. One circumstance that might have affected the content disclosed was that the interviewer had no previous gambling experience. This might have made the participants more reluctant to share their experiences. It is also possible that they wanted to share their experiences to a higher extent because of this. A limitation of great importance is the highly exploratory nature of the study. The consequence of this limitation is that the answers have a broad scope. If the questions asked had been more specific, the answers might have had even more depth.

5. Conclusions

Many themes reflected positive experiences of Playscan that should have promoted use. However, Playscan was not used repeatedly by the interviewed participants. This paradox is evident in the interview material. There were several reasons for the lack of repeated usage, although the main reason was that Playscan did not communicate feedback to users in a sufficient way. Sending personalised and more frequent feedback to users seemed to be most plausible solution to increase usage.

Future research should focus on user patterns and the effect of RG tools. Studies using different types of feedback mechanisms should be carried out and the dose–effect relationship should be explored to evaluate the potential change in efficacy.

Declaration of interest

David Forsström is funded PhD-position by the Svenska Spel's Research Council. However, the council does not have any influence over the submitted study or the studies included in the PhD-project.

Markus Jansson-Fröjmark: None.

Hugo Hesser: None.

Per Carlbring has been the primary investigator of two larger treatment studies on pathological gambling funded by the Public Health Agency of Sweden. He has also received 3-year funding from FORTE, a government agency under the Swedish Ministry of Health and Social Affairs, for an Internet-delivered treatment for concerned significant others of people with problem gambling. In addition, he has received two grants (Svenska spel & PAF) specifically devoted to only cover the university costs of employing two PhD-students. Both PhD-positions were publically announced and applicants were independently assessed by 3 reviewers. Finally, PC is an unpaid gambling expert for the National Board of Health and Welfare (Socialstyrelsen) which is a government agency in Sweden under the Ministry of Health and Social Affairs.

Acknowledgements

The current study was supported by a grant from Svenska Spel's Research Council to the last author. Svenska Spel was involved in the study, as they sent out two emails for recruiting participants. The

authors of the study would like to thank Svenska Spel for their help in reaching the users of the RG tool. However, Svenska Spel was not involved in the selection, the interviews or the analysis of the interviews. The authors want to thank Maria Larsson for having conducted the interviews and collecting the questionnaires.

Appendix 1. Interview guide

Questions on gambling:

- When did you begin gambling?
- What game(s) did you begin with?
- Why did you begin gambling?
- When did you begin gambling with Svenska Spel's online service?
- What game(s) do you use on Svenska Spel's online service?

Questions on Playscan:

- When did you join Playscan?
- Why did you join Playscan?
- How have you used Playscan?

Opinion of Playscan as a service:

- How do you understand the purpose of Playscan?
- What is your opinion of the reliability of Playscan?
- What is your opinion of the tone used in communications from Playscan?

Questions on gambling after joining Playscan:

- Has your gambling changed in any way since joining Playscan?
- Has your attitude toward your gambling changed in any way since joining Playscan?

References

- Adami, N., Benini, S., Boschetti, A., Canini, L., Maione, F., Temporin, M., 2013. Markers of unsustainable gambling for early detection of at-risk online gamblers. *Int. Gambl. Stud.* 13 (2):188–204. <http://dx.doi.org/10.1080/14459795.2012.754919>.
- Andersen, R.M., 1995. Revisiting the behavioral model and access to medical care: does it matter? *J. Health Soc. Behav.* 36 (1):1. <http://dx.doi.org/10.2307/2137284>.
- Auer, M., Griffiths, M.D., 2015. The use of personalized behavioral feedback for online gamblers: an empirical study. *Front. Psychol.*:6 <http://dx.doi.org/10.3389/fpsyg.2015.01406>.
- Auer, M., Griffiths, M.D., 2016. Personalized behavioral feedback for online gamblers: a real world empirical study. *Front. Psychol.* 7, 1875.
- Blaszczyński, A., Ladouceur, R., Shaffer, H.J., 2004. A science-based framework for responsible gambling: the Reno model. *J. Gambl. Stud.* 20 (3):301–317. <http://dx.doi.org/10.1023/b:jogs.0000040281.49444.e2>.
- Blaszczyński, A., Collins, P., Fong, D., Ladouceur, R., Nower, L., Shaffer, H., ... Venisse, J.-L., 2011. Responsible gambling: general principles and minimal requirements. *J. Gambl. Stud.* 27 (4):565–573. <http://dx.doi.org/10.1007/s10899-010-9214-0>.
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3 (2):77–101. <http://dx.doi.org/10.1191/1478088706qp063oa>.
- Braun, V., Clarke, V., 2013. *Successful Qualitative Research: A Practical Guide for Beginners*. Sage.
- Braverman, J., Shaffer, H.J., 2012. How do Gamblers Start Gambling: Identifying Behavioural Markers for High-risk Internet Gambling. vol. 22.
- Cooper, G., 2004. *Exploring and Understanding Online Assistance for Problem Gamblers: The Pathways Disclosure Model*.
- Di Blasi, M., Tosto, C., Marfia, A., Cavani, P., Giordano, C., 2016. Transition to adulthood and recession: a qualitative study. *J. Youth Stud.*:1–18 <http://dx.doi.org/10.1080/13676261.2015.1136055>.
- Dragicevic, S., Tsogas, G., Kudic, A., 2011. Analysis of casino online gambling data in relation to behavioural risk markers for high-risk gambling and player protection. *Int. Gambl. Stud.* 11 (3):377–391. <http://dx.doi.org/10.1080/14459795.2011.629204>.
- Dunn, K., Delfabbro, P., Harvey, P., 2012. A preliminary, qualitative exploration of the influences associated with drop-out from cognitive-behavioural therapy for problem gambling: an Australian perspective. *J. Gambl. Stud.* 28 (2):253–272. <http://dx.doi.org/10.1007/s10899-011-9257-x>.
- Ferris, J., Wynne, H., 2001. *The Canadian Problem Gambling Index*. Canadian Centre on Substance Abuse, Ottawa, ON.
- Forsström, D., Hesser, H., Carlbring, P., 2016. Usage of a responsible gambling tool: a descriptive analysis and latent class analysis of user behavior. *J. Gambl. Stud.*:1–16 <http://dx.doi.org/10.1007/s10899-015-9590-6>.

- Gainsbury, S., Parke, J., Suhonen, N., 2013. Consumer attitudes towards Internet gambling: perceptions of responsible gambling policies, consumer protection, and regulation of online gambling sites. *Comput. Hum. Behav.* 29 (1):235–245. <http://dx.doi.org/10.1016/j.chb.2012.08.010>.
- Gooding, P., Tarrier, N., 2009. A systematic review and meta-analysis of cognitive-behavioural interventions to reduce problem gambling: hedging our bets? *Behav. Res. Ther.* 47 (7):592–607. <http://dx.doi.org/10.1016/j.brat.2009.04.002>.
- Griffiths, M.D., Wood, R.T.A., Parke, J., 2009. Social responsibility tools in online gambling: a survey of attitudes and behavior among internet gamblers. *Cyberpsychol. Behav.* 12 (4):413–421. <http://dx.doi.org/10.1089/cpb.2009.0062>.
- Haefeli, J., Lischer, S., Schwarz, J., 2011. Early detection items and responsible gambling features for online gambling. *Int. Gambl. Stud.* 11 (3):273–288. <http://dx.doi.org/10.1080/14459795.2011.604643>.
- Haefeli, J., Lischer, S., Haeusler, J., 2014. Communications-based early detection of gambling-related problems in online gambling. *Int. Gambl. Stud.* 15 (1):23–38. <http://dx.doi.org/10.1080/14459795.2014.980297>.
- Haeusler, J., 2016. Follow the money: using payment behaviour as predictor for future self-exclusion. *Int. Gambl. Stud.*:1–17 <http://dx.doi.org/10.1080/14459795.2016.1158306>.
- Harris, A., Griffiths, M.D., 2016. A critical review of the harm-minimisation tools available for electronic gambling. *J. Gambl. Stud.* 1–35.
- Hill, C.E., Knox, S., Thompson, B.J., Williams, E.N., Hess, S.A., Ladany, N., 2005. *Consensual qualitative research: an update*. *J. Couns. Psychol.* 52 (2), 196.
- Hing, N., Nuske, E., Gainsbury, S.M., Russell, A.M.T., 2016. Perceived stigma and self-stigma of problem gambling: perspectives of people with gambling problems. *Int. Gambl. Stud.* 16 (1):31–48. <http://dx.doi.org/10.1080/14459795.2015.1092566>.
- Jonsson, J., Munck, L., Volberg, R., Carlbring, P., 2017. GamTest: psychometric evaluation and the role of emotions in an online self-test for gambling behavior. *J. Gambl. Stud.*:1–19 <http://dx.doi.org/10.1007/s10899-017-9676-4>.
- Kelders, S.M., Kok, R.N., Ossebaard, H.C., Van Gemert-Pijnen, J.E.W.C., 2012. Persuasive system design does matter: a systematic review of adherence to web-based interventions. *J. Med. Internet Res.* 14 (6), e152. <http://dx.doi.org/10.2196/jmir.2104>.
- Kuijpers, W., Groen, W.G., Aaronson, N.K., van Harten, W.H., 2013. A systematic review of web-based interventions for patient empowerment and physical activity in chronic diseases: relevance for cancer survivors. *J. Med. Internet Res.* 15 (2), e37.
- Ladouceur, R., Blaszczynski, A., Lalande, D.R., 2012. Pre-commitment in gambling: a review of the empirical evidence. *Int. Gambl. Stud.* 12 (2):215–230. <http://dx.doi.org/10.1080/14459795.2012.658078>.
- Ladouceur, R., Shaffer, P., Blaszczynski, A., Shaffer, H.J., 2016a. Responsible gambling: a synthesis of the empirical evidence. *Addict. Res. Theory*:1–11 <http://dx.doi.org/10.1080/16066359.2016.1245294>.
- Ladouceur, R., Blaszczynski, A., Shaffer, H.J., Fong, D., 2016b. Extending the Reno model: responsible gambling evaluation guidelines for gambling operators, public policymakers, and regulators. *Gaming Law Rev. Econ.* 20 (7), 580–586.
- Martens, M.P., Arterberry, B.J., Takamatsu, S.K., Masters, J., Dude, K., 2015. The efficacy of a personalized feedback-only intervention for at-risk college gamblers. *J. Consult. Clin. Psychol.* 83 (3):494–499. <http://dx.doi.org/10.1037/a0038843>.
- Miller, W., Rollnick, S., 2002. *Motivational Interviewing: Preparing People for Change*. Guilford, New York.
- Monaghan, S., 2008. Review of pop-up messages on electronic gaming machines as a proposed responsible gambling strategy. *Int. J. Ment. Heal. Addict.* 6 (2):214–222. <http://dx.doi.org/10.1007/s11469-007-9133-1>.
- Neighbors, C., Rodriguez, L.M., Rinker, D.V., Gonzales, R.G., Agana, M., Tackett, J.L., Foster, D.W., 2015. Efficacy of personalized normative feedback as a brief intervention for college student gambling: a randomized controlled trial. *J. Consult. Clin. Psychol.* 83 (3):500–511. <http://dx.doi.org/10.1037/a0039125>.
- Nijland, N., van Gemert-Pijnen, J., Boer, H., Stehouder, M.F., Seydel, E.R., 2008. Evaluation of internet-based technology for supporting self-care: problems encountered by patients and caregivers when using self-care applications. *J. Med. Internet Res.* 10 (2), e13.
- Nijland, N., van Gemert-Pijnen, J.E., Kelders, S.M., Brandenburg, B.J., Seydel, E.R., 2011. Factors influencing the use of a web-based application for supporting the self-care of patients with type 2 diabetes: a longitudinal study. *J. Med. Internet Res.* 13 (3), e71.
- Nisbet, S., 2005. Responsible Gambling Features of Card-based Technologies.
- Palomäki, J., Laakasuo, M., Salmela, M., 2013. 'This is just so unfair!': a qualitative analysis of loss-induced emotions and tilting in on-line poker. *Int. Gambl. Stud.* 13 (2): 255–270. <http://dx.doi.org/10.1080/14459795.2013.780631>.
- Patford, J., 2009. For worse, for poorer and in ill health: how women experience, understand and respond to a partner's gambling problems. *Int. J. Ment. Heal. Addict.* 7 (1):177–189. <http://dx.doi.org/10.1007/s11469-008-9173-1>.
- Percy, C., França, M., Dragičević, S., d'Avila Garcez, A., 2016. Predicting online gambling self-exclusion: an analysis of the performance of supervised machine learning models. *Int. Gambl. Stud.* 16 (2):193–210. <http://dx.doi.org/10.1080/14459795.2016.1151913>.
- Philander, K.S., 2013. Identifying high-risk online gamblers: a comparison of data mining procedures. *Int. Gambl. Stud.* 14 (1):53–63. <http://dx.doi.org/10.1080/14459795.2013.841721>.
- Prochaska, J.O., DiClemente, C.C., Norcross, J.C., 1993. In search of how people change: applications to addictive behaviors. *J. Addict. Nurs.* 5 (1):2–16. <http://dx.doi.org/10.3109/10884609309149692>.
- Regev, D., Chasday, H., Snir, S., 2016. Silence during art therapy—the client's perspective. *Arts Psychother.* 48, 69–75.
- Rodda, S., Lubman, D., Cheetham, A., Dowling, N., Jackson, A., 2015. Single session web-based counselling: a thematic analysis of content from the perspective of the client. *Br. J. Guid. Couns.* 43 (1), 117–130.
- Slutske, W.S., 2006. Natural recovery and treatment-seeking in pathological gambling: results of two U.S. national surveys. *Am. J. Psychiatry* 163 (2):297–302. <http://dx.doi.org/10.1176/appi.ajp.163.2.297>.
- Suurvali, H., Hodgins, D., Toneatto, T., Cunningham, J., 2008. Treatment seeking among Ontario problem gamblers: results of a population survey. *PS* 59 (11):1343–1346. <http://dx.doi.org/10.1176/ps.2008.59.11.1343>.
- Wangberg, S.C., Bergmo, T.S., Johnsen, J.-A.K., 2008. Adherence in Internet-based interventions. *Patient Prefer. Adherence* 2, 57.
- Wanner, M., Martin-Diener, E., Bauer, G., Braun-Fahrlander, C., Martin, B.W., 2010. Comparison of trial participants and open access users of a web-based physical activity intervention regarding adherence, attrition, and repeated participation. *J. Med. Internet Res.* 12 (1), e3. <http://dx.doi.org/10.2196/jmir.1361>.
- Williams, R.J., West, B.L., Simpson, R.L., 2012. *Prevention of Problem Gambling: A Comprehensive Review of the Evidence and Identified Best Practices*. Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care.
- Wood, R.T.A., Griffiths, M.D., 2007. Online guidance, advice, and support for problem gamblers and concerned relatives and friends: an evaluation of the GamAid pilot service. *Br. J. Guid. Couns.* 35 (4), 373–389.
- Wood, R.T.A., Griffiths, M.D., 2008. Why Swedish people play online poker and factors that can increase or decrease trust in poker web sites: a qualitative investigation. *J. Gambl. Issues* 80–97.
- Wood, R.T.A., Wohl, M.J.A., 2015. Assessing the effectiveness of a responsible gambling behavioural feedback tool for reducing the gambling expenditure of at-risk players. *Int. Gambl. Stud.* 15 (2):1–16. <http://dx.doi.org/10.1080/14459795.2015.1049191>.
- Wood, R.T.A., Wood, S.A., 2009. An evaluation of two United Kingdom online support forums designed to help people with gambling issues. *J. Gambl. Issues* 5–30.
- Yakovenko, I., Hodgins, D.C., 2016. Latest developments in treatment for disordered gambling: review and critical evaluation of outcome studies. *Curr. Addict. Rep.* 3 (3): 299–306. <http://dx.doi.org/10.1007/s40429-016-0110-2>.
- Yakovenko, I., Quigley, L., Hemmelgarn, B.R., Hodgins, D.C., Ronksley, P., 2015. The efficacy of motivational interviewing for disordered gambling: systematic review and meta-analysis. *Addict. Behav.* 43:72–82. <http://dx.doi.org/10.1016/j.addbeh.2014.12.011>.