Understanding end-user perspectives to enhance perceived value uptake of harm minimization tools: Considering gambler’s views of a pre-commitment system

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ABSTRACT
Harm minimization strategies reduce the experience of gambling-related harms for individuals and those close to them. Most policies and particularly discussions of tool design and implementation fail to involve end users and consider their concerns and needs. This study aimed to investigate the best way to introduce a harm minimization tool for electronic gaming machines (EGMs) that will maximize the perceived value and subsequent uptake by the intended audience of gamblers. Focus groups were conducted with 31 Australian regular EGM gamblers experiencing a range of gambling problems. Participants were asked their perspectives of a pre-commitment system (features including accessing activity statements, setting limits, viewing dynamic messages, taking breaks), including concerns, and how to enhance perceived value and usefulness. Positive attitudes about the system were expressed, however, many gamblers saw the tool as only relevant for problem gamblers. Participants indicated that value could be enhanced by making the system flexible and customizable, but still easy to use. Design and implementation strategies such as incorporating flexibility in features, ease of use, appropriate terminology, and educational efforts may address gamblers’ concerns, particularly regarding privacy and potential stigma. This would enhance user perception of harm minimization tools as relevant and may subsequently enhance effectiveness.
INTRODUCTION
Risky behaviour may include patterns of acting that lead to significant problems including gambling disorder. Harm minimisation strategies aim to reduce the risks associated with gambling and facilitate responsible gambling, without necessarily disturbing those who gamble in a non-problematic manner (Gainsbury & Blaszczynski, 2012). These are based on underlying principles of pragmatism and empirical evidence and are part of a public health framework (Stockwell, 2001). Although harm minimisation policies and strategies are intended to be based on individual needs, there is little evidence to support the effectiveness these for gambling (Ladouceur, Shaffer, Blaszczynski, & Shaffer, 2017; Livingstone, Rintoul, & Francis, 2014). Similar deficits exist regarding alcohol interventions (Ritter & Cameron, 2006). Research often focuses on developing harm minimisation tools and resources, including self-led play management tools, which can assist individuals to make appropriate behavioural modifications to avoid the experience of problems. Self-led tools are important as a method to assist gamblers to put practices in place to prevent the development of any gambling problems (Harris & Griffiths, 2017). However, these are generally based on theory and evidence from trials in controlled environments. Research is urgently needed to inform implementation of harm-minimisation tools to maximise uptake and use, which is necessary for effectiveness.

One element often missing from research, design, and implementation of harm minimisation tools is identifying and involving all stakeholders and their different needs and concerns (Dennis, Perl, Huebner, & McLellan, 2000). Gamblers are not a homogenous group and consideration of those with different risk levels of experiencing problems is important to understand their needs, priorities and concerns. An important, and often missing step, in implementation design is understanding the disparate needs and issues of end users. Consulting with potential stakeholders and end users of research from the earliest planning stages can enhance perceived value of a system or practice, leading to enhanced uptake, and ultimately greater effectiveness (Dennis et al., 2000). Often policy development may include public consultation at embryonic and conceptual stages of debate, but then fail to include end-users in the creation of specific tools and thoughtfully consider implementation issues. Failure to consider the broader system, context and end user will likely lead to roadblocks, if not outright failure of harm minimisation strategies. In contrast, understanding player perceptions, behaviour, and the potential unintended consequences is critical to ensuring tool effectiveness (Nisbet, Jackson, & Christensen, 2016).

Electronic gaming machines (EGMs) have a greater association with problem gambling than other forms of gambling, making them an appropriate target for harm minimisation strategies (Ladouceur, Blaszczynski, & Lalande, 2012; Productivity Commission, 2010). Several strategies have been found to be effective in laboratory research, as well as in vivo settings within gambling venues or online, in modifying gambler’s thoughts and behaviours in ways
that are likely to reduce harms, that is, reduced size and frequency of bets, increased awareness of amount of time and money spent, and greater breaks in play (Harris & Griffiths, 2017; Ladouceur et al., 2017; Livingstone et al., 2014). These include dynamic warning messages (Gainsbury, Aro, Ball, Tobar, & Russell, 2015; Ginley, Whelan, Pfund, Peter, & Meyers, 2017; Monaghan, 2009), transaction history statements (Martens, Arterberry, Takamatsu, Masters, & Dude, 2015; Neighbors et al., 2015) and the ability to set limits on money (Auer & Griffiths, 2013; Ladouceur, Blaszczynski, & Lalande, 2012; Stewart & Wohl, 2013) and time spent gambling (Kim, Wohl, Stewart, Sztainert, & Gainsbury, 2014). These features are sometimes included together within a consumer protection framework, or incorporated into a single system, including ‘pre-commitment’ systems.

Despite evidence that these strategies are useful for problem and at-risk gamblers, effective gambling harm minimisation strategies are implemented in few jurisdictions (Gainsbury, Blankers, Wilkinson, Schelleman-Offermans, & Cousijn, 2014; Livingstone, Rintoul, & Francis, 2014). Furthermore, harm minimisation resources such as self-exclusion or monetary limit setting are generally underutilised by gamblers (Gainsbury, Hing, & Suhonen, 2014; Ladouceur et al., 2012). This is similar to the underutilisation of effective policies to address excessive alcohol consumption and related harms (Nelson, Xuan, Blanchette, Heeren, & Naimi, 2015). Research suggests that behavioural change is best facilitated by encouraging self-reflection and voluntary use of tools. Harm minimisation strategies, including for those with mental health disorders, that encourage consumers to define their own needs and goals, are more effective in facilitating appropriate behavioural change (Marlatt & Witkiewitz, 2002; Measham, 2006; Monaghan & Blaszczynski, 2009; Tsemberis, Gulcur, & Nakae, 2004). One issue preventing the intended outcome of reduced harm is the deficit of research examining the best design of tools from a consumer perspective, including different formats, variations in how these can be used and accessed and whether they are viewed by gamblers as useful and valuable.

The debate over pre-commitment with its various forms (voluntary, mandatory, binding, non-binding) and features (deposit limits, spend limits, time limits, activity statements, exclusion options, dynamic messaging) has been widely held with divergent views expressed on the merits of such a system. The lack of clarity over the definition of pre-commitment and many misconceptions of the system (as a gambling license, prevention vs. reduction of gambling problems) is one example of how a potentially effective harm minimisation practice can be impacted by end user attitudes. As an example, ‘My Play’ was introduced in Nova Scotia, Canada, by the Nova Scotia Provincial Lotteries and Casino Corporation to give players information about their current and past EGM activity to help them make informed decisions about their play (RGC Centre for the Advancement of Best Practices, 2016). My-Play was a responsible gambling system for EGMs that was developed with a series of extensive pilot testing and live trials over several years. Trials indicated that the system was effective in
reducing time and money, including among at-risk and problem gamblers, although the system was not widely used and there was poor understanding of the system and its purpose (Bernhard, Lucas, & Jang, 2006; Omnifacts Bristol Research, 2005, 2007; RGC Centre for the Advancement of Best Practices, 2016). During the initial implementation period, participation was voluntary and less than 1% of gamblers enrolled in the system (Polatschek, Wadden, & Gwynn, 2013). After 18 months, mandatory enrolment was implemented, however fully enrolled players used the tools approximately 5% of the time, despite the secondary implementation of an incentive system for players and retailers to encourage engagement with the system. Focus groups conducted after implementation revealed significant concerns among gamblers about the system (Polatschek et al., 2013). Longitudinal research showed that the My-Play system was effective in reducing negative outcomes for problem and at-risk gamblers, including reducing problem gambling severity scores (RGC Centre for the Advancement of Best Practices, 2016). However, understanding of how the system worked and the intended audience remained low among gamblers and resistance to the system was high. The system was removed less than 2.5 years after it was fully implemented due to its lack of effectiveness. The system failed to create value for players, had fundamental design flaws and a lack of communication had resulted in wide-spread erroneous beliefs that undermined the system. In contrast, a similar, but voluntary pre-commitment system, ‘PlayMyWay’ piloted in 2016 at one Massachusetts casino enrolled 10% of eligible players in the first year (Massachusetts Gaming Commission, 2017), demonstrating greater consumer interest and involvement in the tools, although research on its impact is still pending.

The current research aimed to understand the views of gamblers with the objective of informing the research question: What is the best way to introduce a suite of harm minimisation tools for EGMs that will maximise the perceived value and subsequent uptake by the intended audience of gamblers? It is important to anticipate any criticisms of intended tools and address these as part of the implementation process. This includes understanding gambler’s perspectives regarding the value and usefulness of the proposed tools. Perceptions of gamblers across a range of risk for problems was also important to determine how different segments perceived the tools to inform strategies to encourage uptake by the intended target group (Harris & Griffiths, 2017). Qualitative analysis was used which is useful to explore cognitive and emotional issues associated with participant’s understanding of the tools and how they may, or may not, engage with this (Dennis et al., 2000; Neale, Allen, & Coombes, 2005). The intention was not to evaluate specific features of a specific harm minimisation tool (e.g., monetary limit setting), but to highlight the importance of considering end users’ concerns and thoughts and incorporate these into the development of policies and practices. Given the lack of prior research in this area no specific hypotheses were created, although it was expected that gamblers would have some misconceptions about harm minimisation tools, including their intended aim and target audience.
METHOD

Participants
A sample of n=31 Australian gamblers of various problem gambling status were recruited from a panel of previous research participants who had agreed for their contact details to be used for future gambling-related research. Each interested participant contacted the researchers by phone and or email in response to an email forwarded to the entire panel. Interested participants completed a brief screening interview which assessed for eligibility (inclusion criteria: play EGMs at least every two weeks, ability to speak and understand English and aged 18 years or over). Each interested participant completed the Problem Gambling Severity Index (PGSI, Ferris & Wynne, 2001) with the researcher. The PGSI is a 9-question measure that classifies gamblers as being at no-risk, low-risk, medium risk or problem gamblers and is widely accepted and used for assessing problem gambling severity in research contexts (Holtgraves, 2009).

Participants were stratified into one of six focus groups held in February 2014. The breakdown of the focus group attendance is outlined below.
- 2 groups of low risk gamblers (n=8)
- 2 groups of medium risk gamblers (n=8)
- 2 groups of problem gamblers (n=15)

Process
Each participant completed and returned the consent form prior to participation. Participants were telephoned and directed to an online telecommunication meeting space. At the outset of the call, the principles of the information and consent form were reviewed. The focus groups were conducted by an appropriately trained researcher and took one hour. Telephone focus groups are advantageous as they overcome geographical dispersion to allow a wide selection of respondents to be included in research, they are convenient for participants, offer increased levels of anonymity, are cost-effective, increase attendance rates, and allow high-quality recordings (Hurworth, 2004). Teleconferences are often used, particularly in health-related research, to reach specialised and dispersed populations and to discuss potentially sensitive topics (Cooper, Jorgensen, & Merritt, 2003).

Materials
Participants were informed that they would be discussing a new gaming system that may be developed which can provide people who play EGMs the option of using tools to assist them to gamble in an informed and appropriate way. The system would allow players to track their

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1 Participants were drawn from a panel created by the Centre of Gambling Education and Research Southern Cross University who asked participants in previous research studies (Gainsbury et al., 2015; Hing et al., 2014) whether they would be willing to be contacted in the future to participate in research.
play across sessions and venues and access their history of play, set limits on their time and expenditure, receive dynamic messages and take breaks in play. The details of the system were intentionally kept vague as the intention was to focus on the entire system, rather than specific features. Furthermore, given notable media coverage of pre-commitment systems and a political discussion that distorted the issues (Nisbet et al., 2016), this label was intentionally avoided to reduce any bias or preconception based on uninformed sources. The protocol is included in the Appendix.

Analysis
Each focus group was recorded (with the permission of attendees) and professionally transcribed. The transcriptions were reviewed and coded for analysis using the NVivo software. This facilitated the identification of themes, patterns and contradictions in the data. Focus group data was analysed using the principles of coding developed by Corbin and Strauss (1990). This involves breaking down, examining, comparing, conceptualising and categorising data, often in terms of properties and dimensions. This coding process is fundamentally interpretative in nature whereby the researcher is active in the process, asking, ‘What is the significance of these date? Why am I interested in this?’ The analysis should result in the identification of core categories that integrate the theoretical concepts into a coherent whole – ‘grounded’ in the original evidence. The data presented focus on what would increase the perceived value and usefulness of the system that would enhance uptake by the intended audience – that is, all gamblers, but particularly those at-risk and experiencing gambling problems.

Ethics
Ethics approval was obtained through both Bond University Ethics Committee (RO1714) and Southern Cross University Human Research Ethics Committees [ECN-13-299].

RESULTS
Divergent views were present within and across groups of gamblers with different PGSI statuses. Despite the introduction to each focus group placing emphasis on a suite of tools that gamblers may have the option of using to assist them to gamble in an informed and appropriate way, the majority of gamblers understood the system’s aim was to prevent, reduce or assist problem gambling.

A variety of opinions and perspectives about the pre-commitment tools were expressed by gamblers across the spectrum of gambling. These attitudes were analysed to break down into three subgroups, ‘Positive’, ‘Not for me’ and ‘Concerns’.

Not for me
Although there was some indication that the system had value and may be used by a proportion of gamblers to provide information and awareness, the phenomena of ‘not for me’ was clearly demonstrated where the gambler reported perceived value in a system – for someone other than themselves.

“I wouldn’t see any benefits for myself, but again if you were heading towards what you thought might be problem gambling, yeah that - that - it may be useful for that purpose.” (Moderate risk gambler)

“I feel pretty strongly about less informed people having more information.” (Low risk gambler)

“I guess if I felt that my gambling was becoming a problem they'd be useful.” (Low risk gambler)

Positive attitudes

Positive attitudes related to the system were reported in relation to the system as a whole and/or encompassed reactions and receptivity to the tools.

“I can’t see any disadvantages of having it, I could only see advantages.” (Moderate risk gambler)

“That would help me with my spending.” (Low risk gambler)

Some gamblers acknowledged that their card-based betting history (over a longer duration) is already available from their gambling venue, however the ability to have greater control over it themselves and the ability to report over differing time periods served as the differentiating factors.

Limit setting with money was viewed as valuable for a number of participants across PGSI scores. This was particularly appealing when it could extend across venues.

“that would actually come in handy because that way you could actually work out how much time you’re actually spending on the machines at different venues.” (Low risk gambler)

“It would be good if it was [something] that you could use anywhere.” (Moderate risk gambler)

Problem gamblers that favoured messages talked about having messages which prompted them to self-assess.

“Sometimes a little bit of a prompt, a question will help me reassess things and decide from then what I want to do. I think it is a great idea.” (Problem gambler)

Gamblers were receptive to the idea of breaks in play. For those in the low and moderate categories, there was little discussion about it being relevant for them personally but some acknowledgment that the features may be helpful for people who had gambling issues. Problem gamblers reported greater value in these being integrated into a system but noted that how they were structured would impact their usefulness.

Concerns about the system
Participants reflected concerns extending beyond their own gambling experience to touch on the implications for others and the broader society.

**Expense**
For instance, the issue of expense was expressed often in relation to the perceived value of the system. The cost/benefit ratio appeared to be a concern for some gamblers at both a societal level and for each venue.

“The big trouble is if it's not mandatory you're going to force a huge expense either as I say on the clubs, pubs and casinos or the government, which is us, the taxpayer, to set up a system that maybe 5% of the people might use.” (Moderate risk gambler)

**Privacy**
Privacy concerns were raised in at the societal level in terms of who will have access to this information. Additional concerns were expressed about the privacy of personal information or what other gamblers or venue staff would be able to learn about them and their play. Low and moderate-risk gamblers were more likely to be concerned about the broader privacy issues than problem gamblers.

“one thing that does worry me about it is how far the Government would want to look into this. Would they be able to press a button and say, ‘oh, look at that. That person is spending all their pension money down at the club, we’d better not give them any more.” (Low risk gambler)

“...they may see a pattern for example you know during on Thursdays or something during the hours of four to six you know get this sort of demographic of people and therefore you can do X, Y Z promotions to encourage more gambling, so that could be a downside to it.” (Low risk gambler)

These concerns were related to issues with trust. Trusting that a system would be designed that would be uniquely helpful to the player and not designed to benefit the government and/or the gambling industry. Problem gamblers were more likely to be concerned with the latter with their comments concerning privacy more often reflective of the design of a system in the relation to it preserving their personal privacy.

“That leaves you vulnerable for other people walking past, other patrons walking past to read your information.” (Problem gambler)

“Well I think you need to have perhaps even something that you can do at home because lots of people like the privacy of that.” (Problem gambler)

**Stigmatisation**
Privacy issues relate closely to the issue of stigma and the potential for possession of a card and/or use of the system to have a negative association (i.e. problem gambler).
“….you’ve got certain people that would freak out thinking oh they’re looking at me, they can see I’ve got this weird card in there, are they gamblers, do they spend all their money, you know what I mean, it’s just the stigma thing…” (Moderate risk gambler)

This lack of acceptance may also be related to a broader lack of understanding of harm minimisation tools and a negative association with them. Several gamblers spoke to the potential a tool had to negatively impact on their experiences. This was expressed in a myriad of ways including; reinforcing erroneous cognitions about how a pre-commitment system could interfere with a poker machine; taking the fun out of gambling and pushing gamblers to other forms of gambling (to avoid the system).

Gamblers used words such as ‘buzz’ and ‘enjoyment’.

“Well, to be honest with you from what you said about the other features, it would be like going to play the pokies and taking my wife, my mother, my father and my friend who hates the pokies with me, and watching me play. Because to have all of those controls, kills the buzz for me. You may as well sit at home with my mother and father and get lectured. Do you know what I mean? It is just too much control.” (Problem gambler)

“I don't want to be reminded I - I go for enjoyment and I don't want anything to spoil my enjoyment.” (Moderate risk gambler)

Some gamblers indicated that if these rules were in place they would stop gambling or use another form of gambling in place of playing the pokies.

“If I am going to follow those rules I just won’t play the pokies. I don’t need it that much, but I enjoy it, but I don’t need it that much.” (Problem gambler)

“Yeah well it's – there's barriers to try and put 20 in the poker machine or I could put it – go to the less onerous formal gambling which is probably just horse race or something.” (Low risk gambler)

**Unlikely to be used**

Some participants held the view that even if the system ‘worked’, it would be unlikely to be used as intended by the target audience, which would undermine its effectiveness.

“So I don't think - I don't think that it's going to work. I don't think that it's going to be something that the majority of players are going to want.” (Moderate risk gambler)

“...Of course. But even though I should, I wouldn’t.” (Problem gambler)

“...but for people ... if they do have a problem and - and the gambling is a compulsion... I think in most cases they just wouldn't do it.” (Moderate risk gambler)

“I've been around gambling the majority of my life and I've seen what punters are like, and the sort of information that you're talking about getting I don't think it really would make that much difference to people.” (Low risk gambler)

**Value**

Participants discussed how the system could increase its perceived value – particularly to others.
Inherent value
The system and tools themselves held sufficient value for some players to warrant uptake by the individual or ‘others’ that they perceived as ‘needing’ it more or who could benefit from it. These issues were discussed previously. In addition, participants discussed some ways in which the system could be structured to make it more valuable.

Flexibility
The need for a system to be flexible and responsive to gamblers preferences and needs emerged strongly from the focus groups. This was reflected in the different perspectives of where the value of the system rested (one tool versus another) and in how the gamblers perceived they would utilise the tools in their play. One problem gambler summed things up:

“Customisation is everything to me, the ability to set it up for an individual because we're all individuals and we've all got different ways of dealing and coping and doing.” (Problem gambler)

Problem gamblers discussed how the system could be configured (by them) to assist them to manage their gambling. This was particularly evident when the groups discussed the value of having someone else be involved in the process of setting limits or identifying the value in having messages or alerts sent to support people.

“I would access it online if it was easy to use. ... being with somebody else as well, maybe a counsellor or a partner or a friend...somebody else involved I think that would help with access to this system.” (Problem gambler)

“I think it needs to be user customisable, you know, that you can actually set your own predetermined suspension time from anywhere, from 20 minutes, one hour to two hours and so on and you can also set your monetary commitment, whether it be $20, $40, $100, $200, whatever.” (Problem gambler)

The challenge with the concept of flexibility is the impact that it could also have on the structure and design of a pre-commitment system. In addition to flexibility, many participants indicated a need for the system to be simple and easy to use. This creates an environment where the flexibility required by some must be balanced by an overarching need for the system to be simple to use and understand.

“technology like this does need to be user friendly, very simple so the majority of people will be able to work their way through it by themselves.” (Low risk gambler)

The concept of flexibility extended beyond the construct of system design, to include to the issue of how the system could/should be accessed. Participants in the non-low and moderate risk groups requested that the system allow them to adapt the system to suit their circumstances.

“I think that if you do set a limit you should be able to have the ability to override that limit at any time not excluding you for a day or an hour or anything like that” (Moderate risk gambler)
Some problem gamblers on the other hand, wanted a system which was more rigid and fixed in terms of ceasing play (in accordance with nominated limits etc.)

“Last night I won $400, I had it in my hands, you know, and then I thought "oh no, I can win some more. I just wish there was a way I could stop when I win that money...A red bell or a ding dong or something, ‘go home’.” (Problem gambler)

Further examples of the need for flexibility were demonstrated in the discussions concerning access to the system. Gamblers acknowledged that the needs, playing style and comfort with technology will influence how they are most comfortable accessing the tools. Being able to access the system in a way which worked for each individual was identified as important.

Engaging with a system
In order to identify how and what gamblers would need to encourage them to engage with a system, gamblers were asked to describe what the system would have to do in order for it to be valuable and useful for them. At this point, a number of gamblers discussed the concept of loyalty. Many participants indicated that they were aware of and/or members of loyalty schemes at the clubs and casinos where they currently play the pokies. Many gamblers reported that linking to a loyalty scheme should be considered for the pre-commitment system as a way in which to add value to the system.

“There’d have to be a benefit, there’d have to be some - like - like now when you play at any casino and you've got your card in, when you hit a certain level you'll get $10 worth of return play”. (Moderate risk gambler)

“If it could just be loyalty everywhere and still get in the prize draws and this and that wherever I am I think that would be an incentive...” (Low risk gambler)

The concept of personalisation and making the discourse around the subject lighter was also touched on by several participants who indicated that there was a need to make the language and discussion of the tools and broader system ‘fun’, discouraging a heavy handed approach and tone.

“...but make it fun, don't make it some bloody grim reaper thing, you know, make it look - have some fun but control it, you know. It's a case of self-control.” (Moderate risk gambler)

“Make it - make it look nice, make it fun to use.” (Moderate risk gambler).

DISCUSSION
This qualitative research revealed important perspectives from gamblers who would be the end users of a tool that would likely have a large impact on the effectiveness of an implemented system. Specifically, a greater understanding was gained of the perceived value and usefulness of the tools that would impact its uptake among the intended population. Our anticipated findings were realised as gamblers had misconceptions about the aim and intended audience of the tools and indicated that this would impact their likely uptake and use.
of the system. The goal, purpose and intended target audience of the tool needs to be clearly defined and communicated to gamblers as it will greatly impact engagement. Although the tool was specifically described as being to assist “informed and appropriate play”, the majority of participants automatically considered it to be only relevant for problem gamblers. This is consistent with results from Nova Scotia, where not having gambling problems was a commonly-given reason for not engaging with the My-Play tool (RGC Centre for the Advancement of Best Practices, 2016). Although intense gamblers are likely to be most in need of help to remain in control of their gambling, harm minimisation tools are intended to prevent, rather than address existing gambling problems. The perception that they are only suitable for those with gambling problems undermines the potential effectiveness of tools intended for use by low and moderate risk gamblers (Harris & Griffiths, 2017).

Perceptions of the value and usefulness of the tools for personal use varied markedly between groups and across PGSI scores. Gamblers from across different PGSI scores indicated that they would use the system differently. This supports the provision of a range of harm minimisation tools, as a single tool is unlikely to meet the needs of all gamblers. Subsequently, the expected outcome and target audience must be carefully considered in the design stages. Nonetheless, most participants reported some value of the system, if not for them personally, then for someone else. Understanding where value lies can assist in extending this to appropriate target groups. Future research is needed to look at other relevant cohorts of gamblers, as it is likely that perception of tools will differ among gamblers of different ages, as well as level of gambling involvement.

A key challenge raised by gamblers was how to design a system that functions appropriately and meets the needs of people across the population. Flexibility and configurability of the system were identified as being important. With increasing technological sophistication and adoption by users, tools can allow custom use, but must have a simple interface and be easy to use. This is consistent with qualitative research evaluating an online gambling harm minimisation system which found that a high proportion of active users of the system did not understand what the system was for, or its capabilities (Försström, Jansson-Fröjmark, Hesser, & Carlbring, 2017). Creating harm minimisation tools that can be tailored across groups of gamblers based on their level of risk, gambling involvement, or personal preferences, may enhance the perceived relevance of these, and subsequent uptake, use, and effectiveness.

Potential stigmatisation of users of a pre-commitment system remains a serious concern for some gamblers. This is consistent with research on other tools involving behavioural tracking (e.g., apps for mental health, diet, exercise, and substance use) in which participants are apprehensive of the ability of apps to keep their data private (Dennison, Morrison, Conway, & Yardley, 2013). Similarly, privacy concerns were repeatedly cited in focus groups with gamblers in Nova Scotia as concerns that undermined the use of the Play-Now pre-
commitment system (RGC Centre for the Advancement of Best Practices, 2016). This suggests that responsible gambling tools and/or systems have not yet gained widespread acceptance by gamblers and should remain a consideration during implementation and system design. Fears and concerns regarding privacy of information from other venue patrons, venues and government must be addressed clearly and early in the design of a system. For example, Bluetooth technology would allow dynamic messages to be shown on a gambler’s personal device (e.g., smartphone) using a vibration alert, thus reducing the visibility of messages for others within a venue. Gamblers who register loyalty or other play-tracking cards can be automatically emailed activity statements to a preferred private email address, indicating that these are intended for all gamblers. Clear, consistent messages about privacy issues are important to help build trust in the system. Information about the rationale and underlying purpose of the tools should be clearly communicated to customers, that is, to assist consumers to manage their own gambling and that the personal information would remain private. Customers should be encouraged to set appropriate passwords and use anonymous means of communication such as private email to avoid unintended access to their information.

Importantly, concerns regarding target audience highlight the ongoing potential for the stigmatisation of some harm minimisation tools. This potential for stigmatisation must be actively acknowledged and underpin all design and communication activities in order to minimise the potential for this to occur. For example, careful selection of terminology is required, avoiding phrases such as ‘limits’, ‘pre-commitment’ and ‘responsible gambling’ which are not perceived by gamblers to be broadly relevant, although they continue to be used by researchers, policy makers, and the industry as a general reference to harm minimisation or consumer protection tools and strategies (Blaszczynski et al., 2011; Department of Social Services, 2017). Potential terms to test for acceptance may include ‘play management tools’, ‘gambling management tools’, ‘consumer insight tools’, ‘positive choice tools’, or ‘spend management tools’.

Participatory action research (PAR) seeks to empower affected communities by involving them in defining needs, identifying problems and developing potential solutions (Manderson & Aaby, 1992; Scrimshaw & Gleason, 1992). Not only is such engagement with end users important to focus to recognise the human side of addictions and comply with public health principles (World Health Organization, 1986), it is also practice and likely to enhance the effectiveness of harm minimisation strategies (Coupland & Maher, 2005). It may be argued that gamblers have limited insight into how to design an effective tool, given their erroneous understanding of EGMs and potentially disordered behaviour. However, the process of considering gambler’s perspectives when designing harm minimisation strategies is critical to avoid costly implementation of practices that do not have the intended outcomes. Focus group and other consumer research such as the example provided here could be conducted by
policy makers, researchers, and operators in the design stages of harm minimisation tools. For example, focus groups with gamblers in Nova Scotia indicated privacy concerns that may have been used to modify the system design and enrolment before implementation (RGC Centre for the Advancement of Best Practices, 2016). It is important to note that there are limits of PAR; during design phases details of the proposed practice may be vague, reducing the insights that can be gained. Individuals may be more likely to indicate that they would use a tool in theory, but be less likely to adopt this in practice. Therefore, PAR should continue after implementation, for example, allowing and encouraging customer feedback and formal evaluations to ensure that tools are being used and having the intended impact would enable modifications as appropriate to enhance effectiveness (Forsström et al., 2017).

Limitations
Qualitative research has many strengths, but also some limitations. The small sample size limit the generalisability of the findings. The research intended to include a larger sample, but experienced higher than expected drop-out rates from participants who did not attend the planned focus groups. Further information (such as demographic characteristics and treatment experience) was not gathered from participants as it was not intended that these be considered representative of EGM gamblers more broadly, however, this is noted as a limitation as it does not allow the extent to which the current sample is representative of the broader population of EGM players to be understood. Individuals with no reported negative consequences of gambling were not included in this research. As prevention tools should be used by all gamblers it would be important to understand the perception of recreational gamblers also, including to ensure that they are not adversely affected by harm minimisation measures. The details of the system discussed were kept purposefully vague to avoid discussions of specific features, which were the subject of separate research projects, however, the lack of details may have been a cause for confusion and uncertainty in responding. For this reason, the focus of this paper is not on the feedback from participants for a pre-commitment system itself, but rather the value in including this as a component of research. Results are also limited to participant’s own self-knowledge and may be biased and provide limited perspectives. The research did not test actual behaviour, so there is a reliance on self-report. It is not intended that this be the only source of information to guide the development of the tools, but it does present the voice of the intended end-user, which is critical to guide implementation and enhance effectiveness.

CONCLUSIONS
One potential objection to proposals for more effective harm minimisation tools is that these will not be used by their intended audience. Further, a constant limitation of research on harm minimisation practices is the lack of ability to control for gamblers who choose not to use these, or work around them (Harris & Griffiths, 2017). Unintended consequences of gamblers modifying their behaviour to work around imposed restrictions has the potential to undermine
their effectiveness (Blaszczynski, Sharpe, & Walker, 2001). This qualitative research provides valuable insights into how harm minimisation tools may be introduced and structured to enhance its perceived usefulness and value. The intention was not to discuss the effectiveness of specific features of a pre-commitment system, but demonstrate the relevance of end user perspectives in designing such harm minimisation tools.

The issues discussed are relevant across different types of gambling harm minimisation tools and are crucial to consider in each stage of tool design, trial, and implementation to enhance effectiveness. Communication, consumer education, and marketing is important to address issues of system purpose, aim, and intended audience from the earliest possible opportunity in order to help ensure clear messages are available to gamblers. Issues identified as a concern for gamblers such as privacy, should be addressed early, for example by demonstrating the security of the system. No single harm minimisation practice is going to be effective for all gamblers, so understanding the perceptions of a range of consumers is important. By incorporating consumer research into policy discussions as well as design and implementation strategies, such as by conducting focus groups, pilot testing, formal evaluation, or establishing a consumer advisory board, the effectiveness of harm minimisation measures for gambling may be increased.
REFERENCES


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Dr. Gainsbury is the Editor of International Gambling Studies and was blinded from the peer-review and editorial process of this manuscript.

Laura Jakob and David Aro have no conflicts of interest to declare.

**Bios**

Dr. Sally Gainsbury is the Deputy Director of the University of Sydney Gambling Treatment and Research Clinic. She has expertise in the design and evaluation of responsible gambling policies and strategies and understanding the use and impact of new technology on gambling, including online gambling, social gaming and social media.

Mr. David Aro is the Managing Director of Communio Pty, a company that specializes in health and human services consultancy. Over the last 15 years Mr. Aro has worked with the New Zealand and Australian state and federal governments on a range of projects across multiple sectors. He continues to fine tune his understanding of the different dialects of government. A significant area of focus for Mr. Aro over the last decade has been the integration of evidence into the design, implementation, review and evaluation of projects, programs and policy.

Ms Laura Jakob was a Project Manager/Consultant at Communio.
Appendix – Focus group questions

So the purpose of our meeting today is discuss a new gaming system that may be developed which can provide people who play Electronic Gaming Machines (commonly referred to as poker machines or pokies) the option of using tools to assist them to gamble in an informed and appropriate way.

The system has not yet been developed however there are a number of features that a system may be made up of. We would like to learn from you the types of things that could/should be considered and what would be relevant to you. These features that provide you with the ability to:

- track your play across systems and across venues.
- obtain a transaction statement outlining the amount of money/time that you have spent playing the pokies over a period of time (that time could range from a day /week/ month to a year)
- set a budget (limit) on the amount of money that you’d like to gamble
- set a limit on the amount of time spent gambling pokies (and again that could range from a day/ week/ month/ year)
- receive messages that will give you information about your play
- take a break from play (for a period of a day/ week/ month)
- exclude oneself from play for a prolonged period (for example a year).

Questions

1. How could these tools enhance your existing experience as a player?
2. What would it (the system) have to do you in order for you to think that is useful and valuable to you?
3. How would you like to access the system?
4. How would you like to learn about the system? The tools?