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# FACILITATING AWARENESS AND INFORMED CHOICE IN GAMBLING

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## ABSTRACT

Research demonstrates that a large proportion of individuals have reduced levels of self-awareness of behaviour when gambling, through a process of dissociation (Powell, Hardoon, Derevensky, & Gupta, 1996) and narrowed attention (Diskin & Hodgins, 1999). This can be detrimental to the decisionmaking process, especially as players become increasingly stimulated, which can negatively impact upon gambling behaviour. Therefore, in an attempt to limit irrational gambling behaviour, and gambling beyond levels at which one had initially intended, emphasis is placed on harm minimisation approaches that attempt to increase self-awareness of behaviour and increase awareness of the probable outcomes of participation in gambling, by providing easily understood and relevant information in a timely fashion. Fundamentally, this refers to the provision of information pertaining to 1) Personal Behavioural Information - information provided to the player regarding amount of time and money spent gambling, and 2) Game Transparency Information information that outlines to the player how the game operates e.g. probabilities of winning. Structural and situational characteristics of gambling may not however, be conducive to supporting self-regulation and self-control, making the process of facilitating awareness more challenging than one would initially assume. The following paper reviews evidence for the efficacy of strategies aimed at facilitating awareness during gambling, referring to behavioural information and game transparency, as well as problem gambling information and referral.

**Keywords:** Harm Minimisation; Informed Choice; Problem Gambling; Responsible Gambling; Self-Appraisal; Self-Awareness.

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## **1 INTRODUCTION**

The objective of providing the player with detailed information pertaining to their gambling behaviour, in terms of monetary and time expenditure, as well as information regarding the structural features of a particular gambling activity, is not to attempt to minimise participation in gambling, rather to limit gambling-related harm. The value of such information should be to enhance informed choice, not only in the decision to partake in gambling itself, but to also enable and promote informed choice during the process of gambling.

Research demonstrates that a large proportion of individuals experience lowered self-awareness when gambling, through a process of dissociation (Powell, Hardoon, Derevensky, & Gupta, 1996) and narrowed attention (Diskin & Hodgins, 1999). This often results in rational decision making in gambling eroding as the players become increasingly stimulated (Dickerson, 2003). Emphasis is therefore placed on harm minimisation strategies aimed at facilitating self-awareness during gambling and awareness of information about the probable outcomes of participation in gambling, by providing clear and relevant information in an a timely fashion, with the overall goal of limiting irrational gambling behaviour and gambling beyond levels initially intended.

There are however, certain barriers that make this process more challenging than one may initially assume, such as specific structural and situational characteristics of gambling that may not be conducive to selfregulation and control, for example, games that are rapid and continuous are more likely to produce impaired control (Dickerson, 1993). Furthermore, the information being presented is not perceived as a problem gambling intervention, rather a preventative measure for all customers. However, the individuals who are most at risk of gamblingrelated harm are less inclined to use the information available pertaining to potential risk due to specific vulnerabilities, meaning the provision of riskrelated information is less likely to shape gambling behaviour and promote self-control.

## 2 BEHAVIOURAL INFORMATION AND GAME TRANSPARENCY

#### 2.1 Pre-Morbid Vulnerabilities in At-Risk Populations

A large proportion of problem gamblers have pre-morbid neuropsychological impairment in reflection impulsivity and risky decision-making (Lawrence, Luty, Bogdan, Sahakian, & Clark, 2009), where problem gamblers have a tendency towards impulsive decision making in the face of high uncertainty, as opposed to reflecting over alternative-solution possibilities. Lawrence at al. (2009) demonstrated this

experimentally, where problem gamblers were less inclined to seek further information to assist decision-making and tolerated more uncertainty in their responses when compared to controls during a task with inherent uncertainty. Effectively, problem gamblers, by nature, when faced with risky situations such as gambling, are less likely to actively search for information or guidance compared with normal populations. Lawrence et al. (2009) also demonstrated that in the Cambridge Gambling Task, problem gamblers were shown to make more wagers that were incongruent with probability knowledge, as well as decisions being made more rapidly with a shorter latency between situation provision and response.

In addition, evidence suggests that problem gamblers are often highly impulsive and have reduced cognitive engagement whilst gambling (Sharpe, 2003; Sharpe & Tarrier, 1993). Problem gamblers are also likely to have behavioural deficits in self-regulation due to abnormality in the pre-frontal cortex and the subcortico-cortical networks, meaning diminished executive control (Goudriaan, Oosterlaan, DeBeurs, & van den Brink, 2006).

From this it can be argued that problem gamblers, by nature, often have reduced capacity for planning and cognitive flexibility which is likely to lead to impaired judgement and optimal decision-making, and are therefore, more likely to find themselves spending beyond what they can reasonably afford. This ultimately highlights the importance for consideration of those most at risk when devising ways of minimising gambling-related harm by facilitating player awareness, as those who are most at risk are by nature less likely to utilise provided information aimed at assisting self-regulation and control. It is therefore essential that when assessing the impact of specific harm minimisation measures aimed at facilitating awareness, samples are drawn from populations with similar vulnerabilities. Essentially, strategies must be shown to be effective for the populations with the greatest difficulty in maintaining self-awareness when gambling, rather than non-problem gamblers.

### 2.2 Factual Information in Isolation is Ineffective

Monaghan and Blaszczynski (2010a) observed that public health initiatives frequently use educational campaigns and warning signs informing individuals about the potential risks of a behaviour with the objective of attempting to moderate activity engagement and minimise harm. Monaghan and Blaszczynski (2010b) acknowledge the theoretical premise stimulating such public health campaigns, including the fundamental responsibility of the individual to self-regulate behaviour and the proposition that more informed decisions can be made with fewer knowledge deficiencies and erroneous cognitive biases. Ladouceur, Sylvain, Boutin, and Doucet (2002) demonstrated this empirically by showing that problem gamblers' behaviour could be moderated by correcting erroneous cognitions, misconceptions of probability, and likelihood of winning.

However, there appears to be a lack of empirical evidence demonstrating the effectiveness of information provision regarding risk with respect to public health campaigns for other health behaviours, such as tobacco and alcohol consumption (Hammond, Fong, McNeill, Borland, & Cummings, 2006; Stockley, 2001). In terms of awareness of probability in gambling, such campaigns may increase an individual's awareness of the risk of participating in gambling, but were relatively ineffective in actually modifying behaviour (Hing, 2004). Monaghan and Blaszczynski (2010a) challenged the premise that increasing awareness of probability in gambling and knowledge of random events is related to reduced gambling participation, by identifying several studies demonstrating a discordance between statistical knowledge and understanding with gambling participation and sound gambling decision-making (Evans, Kemish, & Turnbull, 2004; Hertwig, Barron, Weber, & Erev, 2004; Steenberg, Whelan, Meyers, May, & Floyd, 2004; Monaghan & Blaszczynski, 2007; Williams & Connolly, 2006). Furthermore, Monaghan and Blaszczynski (2010a) identify a range of experimental studies demonstrating the effectiveness of pop-up messages correcting erroneous cognitions and biases in gambling (Benshain, Taillefer, & Ladouceur, 2004; Cloutier, Ladouceur, & Sevigny, 2006; Floyd, Whelan, & Myers, 2006), yet there is scarce evidence demonstrating actual changes in gambling behaviour. Indeed, clinical evidence demonstrating a reduction in harm following cognitive interventions to eliminate erroneous gambling beliefs may be a result of other elements of the therapeutic process, such as motivation to change (Monaghan & Blaszcysnki, 2010a).

The way in which information is presented can be crucial in determining its efficacy in terms of impacting upon behaviour, and evidence suggests that for it to be most effective, information should be presented in a supportive framework as opposed to a warning aimed at reducing participation. Autonomy is acknowledged as a fundamental psychological need in order to maintain well-being and psychological functioning. Furthermore, Self-Determination Theory (Deci & Ryan, 1985; 2000) posits that individuals have a need to engage in behaviour derived through the application of one's own values and desires, rather than being shaped through external influences. In application, Williams, McGregor, Sharp, Kouides, Levesque and Ryan et al. (2006) demonstrated that warning labels and health information were more effective in moderating smoking behaviour when they were presented in an autonomy-supported framework rather than presented as paternalistic interventions. Autonomy therefore facilitates motivation for an individual to respond adaptively to risk information, as well as perceived behavioural control they experience in terms of such adaptive responses (Pavey & Sparks, 2010).

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Individuals are more likely to place value on information that does not contravene or reject their values and beliefs, because autonomy is supported within the message, leading to a less defensive and dismissive appraisal of the information (Pavey & Sparks, 2010; Wogalter & Laughery, 1996). Essentially, messages presented within behavioural information, such as net expenditure or game probability, must not present gambling in a negative light or promote cessation, as this will likely be incongruent with the gambler's preferences and values, reducing the likelihood of the message being absorbed or impactful upon behaviour. Rather, information must be presented in a neutral tone, emphasising the autonomy of the individual to use the information to make informed choices.

### 2.3 Effective Framing of Information to Stimulate Behaviour Modification

Framing information in a way that stimulates self-evaluation increases the probability that information will not be automatically dismissed as not being personally relevant. If information is presented in a framework that encourages self-awareness, such as net expenditure, this gives the gambler the opportunity to evaluate the information in contrast to their own beliefs and objectives, and allows suitable responses to be considered (Monaghan & Blaszczynski, 2010b). Critically, the likelihood of the content of a message being acted upon is determined by its perceived personal relevance (Wogalter, 2006). Evidence from parallel health risk behaviours such as nicotine and alcohol consumption shows that those individuals not currently experiencing harm disregarded information as not being personally relevant when the message was presented as a negative warning, limiting its preventative utility (Monaghan & Blaszczynski, 2010a; 2010b), making it essential to frame information as personally relevant to all participants whether currently experiencing problems with gambling or not. Consideration must also be given to the fact that most experienced gamblers will feel confident with knowledge of a game regarding transparency and risk (Rodda & Cowie, 2005; Hing, 2004), meaning if the individual is not encouraged to self-evaluate, the impact of messages pertaining to game transparency and risk will recede over time due to over-exposure or burnout (Bernstein, 1989).

As well as stimulating self-awareness, due to gamblers often experiencing dissociative states with narrowed attention, it is important to frame information in a way that will draw attention and interrupt focus from the gambling task (Bailey, Konstan, & Carlis, 2001; Clark & Brock, 1994; Monaghan & Blaszczynski, 2010b; McCrickard, Catrambone, Chewar, & Stasko, 2003). Hegarty and Just (1993) argue that from a cognitive perspective, individuals are unlikely to have sufficient cognitive capacity to process information available in messages whilst simultaneously continuing in the gambling task. Therefore, it is argued that interruptions to the gambling task will allow message content to be better processed by gamblers. The physical and structural characteristics of digital gambling formats, such as gaming machines or online gambling, certainly provide opportunity to interrupt gambling tasks to present behavioural or game information, but this is more of a challenge for less technology-based and more traditional forms of gambling such as casino table games and bingo.

It could be argued however, that interruptions in game-play may gamblers, potentially resulting in subsequently delivered irritate information being viewed negatively and being disregarded (Ha, 1996), though Edwards, Li, and Lee (2002) argue if this interruption is brief and information is not presented in an overly paternalistic way, it will not be perceived negatively. Importantly however, evidence from explorative research demonstrates provision of information that interrupts the gambling task, and encourages self-awareness and self-evaluation, is relatively effective in moderating gambling behaviour (Floyd, Whelan, & Meyers, 2006; Monaghan, 2009; Monaghan & Blaszczynski, 2010a; 2010b; Schellink & Schrans, 2002), though it must be noted that such studies included significant methodological limitations (e.g. use of selfreport data, and gambling tasks not including monetary loss), leaving room for further empirical investigations into the most effective mode of delivery for responsible gambling messages.

In terms of content, research into the impact of nutritional labels on healthy eating behaviour (e.g. Bialkova & van Trijp, 2010; Hersey, Wohlgenant, Arsenault, Kosa, & Muth, 2013) suggests that it is simplistic, uncomplicated presentation that is more rapidly and readily comprehended, and therefore more likely to stimulate an adaptive response (Wogalter. Conzola. & Smith-Jackson. 2002). As previously acknowledged, given the commonly observed pre-morbid impulsivity of problem gamblers, it is essential that the assessment of the impact of such information includes such at-risk populations.

### 2.4 Motivating Self-Awareness

Finally, rather than presenting information with the objective of enhancing informed choice through descriptive notifications, Monaghan and Blaszczynski (2010a) argue that providing low-cost alternative behaviours, such as taking a break, will complement the act of evaluating players' gambling behaviour in line with their values and preferences. Providing alternative behaviours reinforces the perception of autonomy and assists with individuals' making fully informed choices, and with the focus on maintaining self-awareness as opposed to cessation or behavioural reduction means the information is more likely to be received positively, as there is minimal perceived cost in remaining self-aware (Monaghan & Blaszczynski, 2010a).

Moreover, research demonstrates that gamblers are largely in favour of provision of responsible gambling features (Ladouceur, Blaszczynski, & Lalande, 2012; Parke, Rigbye, & Parke, 2008; Parke, Parke, Rigbye, Suhonen, & Vaughan-Williams, 2012; Schellinck & Schrans, 2007), and some players see such features as indicative of the trustworthiness and integrity of the gambling operator (Wood & Griffiths, 2008). It is therefore tentatively proposed that the gambling industry engages widely in the provision of behavioural and game-transparency information, but that industry collaborates alongside academic researches to empirically investigate optimal mode, content, and schedule of information provision for minimising gambling-related harm.

## **3 PROBLEM GAMBLING INFORMATION AND REFERRAL**

Problem gambling information and referral encompasses the operator's obligation, either morally, or in compliance with a code of practise, to provide vulnerable patrons (and, potentially, the significant others of vulnerable patrons) with information about problem gambling behaviour and options for seeking professional assistance with their gambling behaviour. The provision of problem gambling and referral information is largely a reactive process initiated by the customer requesting information or assistance, as there is argument that an overly paternalistic approach to providing those who are vulnerable with gambling information and help would be overly intrusive, to the point of encroaching on an individual's right to privacy and detrimentally impacting upon the gambling experience. A reactive approach is substantially limited however, particularly given the fact that most problem gamblers do not seek help (Delfabbro, 2007; Slutske, 2006; Suurvali, Hodgins, Toneatto, & Cunningham, 2008), and even when help is sought, this is often not until the individual has experienced significant harm (Weinstock, Burton, Rash, Moran, Biller, & Krudelbach, 2011).

Prior-Johnson, Lindorff, & McGuire (2012) argue that proactively delivering problem gambling information to those exhibiting signs of distress should not be regarded as intrusive, but rather as an attempt to enhance informed choice. Those experiencing problem gambling symptoms may not be fully aware of this at the time, or aware of the help options that are available to them (McMillen, Marshall, Murphy, Lorenzen, & Waugh, 2004; Hodgins & el Guebaly, 2000), meaning such knowledge deficiencies may justify intervention designed to facilitate informed and rational decisions, and therefore, cannot be considered paternalistic or intrusive (New, 1999). Further justification comes from the fact that the earlier at-risk individuals receive help, the greater the probability of a positive outcome (Pulford, Bellringer, Abbott, Clarke, Hodgins, & Williams, 2009).

It is therefore proposed that in addition to current reactive provisions, such as when a customer self-identifies as having problems with their gambling, that proactive information could also be provided, particularly based on evidence suggesting problem gamblers are only likely to receive help after experiencing significant harm, and an earlier intervention is linked to more positive treatment outcomes.

### 3.1 Customer Interaction and Problem Gambling Information

Research indicates that whilst venue staff appear confident of protocol when customers approach them in pursuit of information, ambiguity regarding procedure and responsibility arises when staff observe customers displaying signs of distress (Delfabbro, Borgas, & King, 2012; Hing & Nuske, 2011b; McCain, Tsai, & Bellino, 2009). Evidence suggests that staff uncertainty regarding customer engagement arises as a result of viewing how legitimate the process is and to what extent such action is valued by management (Hing, 2007; Hing & Nuske, 2011a). That said however, research clearly indicates that employees are in favour of further training in customer interaction (Giroux, Boutin, Ladouceur, LaChance, & Dafour, 2008; Hing, 2007), and evidence suggests that those staff who underwent responsible gambling training not only felt more confident to proactively respond to customers displaying signs of distress, but were also more likely to actually intervene (Giroux et al., 2008; Ladouceur, Boutin, Doucet, Dumont, Provencher, Giroux et al., 2004).

It is suggested that management must more actively monitor customer intervention from floor staff or online customer service, and put rewards or sanctions in place to demonstrate the commitment and value corporate management place towards proactively providing problem gambling and referral information (Krancher, 2006; McCain et al., 2009). This is especially beneficial given research that clearly demonstrates employee perceptions of the ethical climate, via genuine managerial support, strongly influences their participation in responsible gambling practices (Boo & Koh, 2001; McCain et al., 2009; Peterson, 2002).

#### 3.2 Stimulating a Cultural Shift in Problem Gambling Information

One of the primary barriers that stop customers self-identifying as experiencing problems and seeking help is lack of knowledge of available services (Hodgins & el Guelby, 2000; McMillen et al., 2004; Rockloff & Schofield, 2004). Customers also report that lack of trust regarding confidentiality, as well as uncertainty regarding the process and stigma once they have self-identified, act as barriers to seeking assistance (Hing, Holdsworth, Tiyce, & Breen, 2014; Hing, Nuske, & Gainsbury, 2011; Rockloff & Schofield, 2004; Scull, Butler, & Mutzleburg, 2003). Therefore, it is reasonable to conclude that efforts should be concentrated

on increasing awareness of what assistance is available on request, and assurance of confidentiality.

On the other hand, employees feel reluctant to proactively engage with customers through fear of hostile responses from those customers who feel their privacy has been invaded without consent (Hing & Nuske, 2011a; 2011b). The probable negative emotional dispositions, such as anger and frustration that a problem gambler is likely to demonstrate in the gambling environment (Delfabbro et al., 2007; Schellinck & Schrans, 2004), does pose more of a challenge for staff engaging with customers. Hing and Nuske (2011b), while accepting the challenge such a task poses, argue attempts should be made at creating a cultural shift, where gamblers are informed that displayed signs of distress indicative of problem gambling behaviour will stimulate customer interaction from employees. They propose a parallel is drawn to employee intervention when customers in bars and public houses appear overtly intoxicated; where staff intervention is perceived as a responsibility rather than an unnecessary intrusion of privacy.

## 4 CONCLUSIONS AND RECOMMENDATIONS FOR RESEARCH

Due to neuropsychological deficits, those players who would most benefit from provision of responsible gambling information are paradoxically the least likely to use it. The predilection for impulsive behaviour amongst at-risk players are unlikely to be changed by harm minimisation strategies, and thus, poses an ongoing challenge with this particular player group in terms of facilitating awareness whilst gambling.

It is critical to facilitating awareness that players are motivated to actively engage in self-regulation, as evidence shows that even when information is received and understood it does not have measureable effects on behaviour. Emphasis should therefore be placed on the provision of information that is personally relevant to the player, as opposed to generic informative content, and should be framed in a way that instils autonomy and assists a player in their decision making as opposed to overly paternalistic information that is likely to be received negatively. Information such as net expenditure or time spent gambling has personal significance to a player, and therefore is seen as relevant information aimed at facilitating informed and rational gambling decisions, and as such, is more likely to affect behaviour. However, the scope for providing personal behavioural information to each player varies significantly across gambling activities.

A further challenge is being able to develop a system to allow identification of a new player session on gaming machines to allow the capture and display of player-specific behaviour. Clearly the introduction of player smart card technology would address this issue, but other strategies may be to create a mechanism where staff *behind the counter* can initialise data capture. This may not be feasible however, due to other tasks that staff must conduct, and therefore, research is needed to assess the practicality of such strategies being implemented with confidence.

While evidence suggests players regularly self-identify themselves as experiencing harm and requiring help, it is recommended that more proactive attempts to intervene are made to capture problems in their earlier stages, as those who do self-identify have often already experienced significant harm. International research suggests however, that staff have a reluctance to proactively engage with customers demonstrating signs of problem gambling, because they lack the training and skills to handle the situation as well as experiencing uncertainty regarding the contexts in which they should intervene. It is proposed that sufficient gambling intervention training be given alongside a robust specification of staff responsibilities to increase staff self-efficacy and therefore, increase the overall likelihood and quality of staff intervention.

International research also suggests that players often do not selfidentify due to lack of awareness about what forms of assistance staff can offer. There appears to be a lack of awareness about how to minimise the possibility of experiencing harm (i.e. responsible gambling) and where help is available should a player begin to experience harm. As a result, it is suggested that provision of such information is made population wide through public health awareness campaigns, rather than simply focussing on what can be achieved within the gambling environment itself.

In application directly to gaming machine environments, it is proposed that there is an increased presence of responsible gambling information in this location. In addition to more traditional responsible gambling posters and pamphlets, it may be an effective strategy to utilise more dynamic media to highlight available services, such as occasional dynamic responsible gambling messages appearing on video screens or the machine itself, or brief audio messages being delivered by speakers periodically on the machines, or in-between racing commentary or in-store advertising.

### 4.1 Priorities for Research in Facilitating Awareness

Given the concern surrounding electronic gambling platforms, a priority should be commencement of experimental investigations assessing the impact of various forms of dynamic messaging in terms of their efficacy in reducing key indicators of harm, as while research has suggested personalised behavioural messages are more effective that general responsible gambling messages, there is a paucity of ecologically valid research designs. Machines in the gambling environment should be programmed with personal, general, and no-content messages to find which formats best combat predetermined indicators of harm, and there is also a need to investigate the most impactful frequency of the messages in

terms of reducing harm, without adversely affecting the experience of gambling.

Staff awareness and understanding of responsible gambling interaction should also be assessed using observational (survey) research, which would allow the identification of any areas of training which needs to be extended or adapted to improve the overall quality and confidence of staff in their ability to effectively provide responsible gambling intervention.

Finally, observational and longitudinal research is required to assess the impact of various strategies aimed at increasing player awareness of the opportunities to engage in responsible gambling, and opportunities to receive responsible gambling guidance if it is required. For example, the effect of gambling environments that adopt promotion of problem and responsible gambling information via video and idle gaming machine screens, as well as occasional audio announcements, can be assessed in terms of how they impact player awareness and usage of services, and compared to gambling environments without the provision of such strategies.

## **5 SUMMARY**

Those responsible for drawing up codes for best practice in harm minimisation have the difficult task of striking a balance between offering sufficient guidance on operator conduct, and at the same time, avoiding suggesting or mandating requirements that are onerous or potentially counterproductive without a good case. It is proposed that if responsible gambling codes were more prescriptive of the licensing requirements and obligations, gambling operators would be more motivated to comply and perhaps be more proactive in their approach to responsible gambling. A detailed outline of standards and benchmarks should assure operators that requirements are supported by empirical evidence, reducing ambiguity as to the appropriate steps required towards efficacious responsible gambling measures. This emphasises the need for a comprehensive research programme, where regulators partner academics to document the impact of operator-based harm minimisation measures, and employ experimental designs that are ecologically and internally valid to ensure future strategies are robust and evidence-based.

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