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Operator-Based Approaches to Harm Minimisation in Gambling

Summary, Review and Future Directions

responsible gamblingtrust

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Prepared for: The Responsible Gambling Trust

[The Responsible Gambling Trust is the leading charity in the UK committed to minimising gambling-related harm. As an independent national charity funded by donations from the gambling industry, the Responsible Gambling Trust funds education, prevention and treatment services and commissions research to broaden public understanding of gambling-related harm. The aim is to stop people getting into problems with their gambling, and ensure that those that do develop problems receive fast and effective treatment and support.]

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Operator-Based Approaches to Harm Minimisation in Gambling: *Summary, Review and Future Directions*

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1 ACKNOWLEDGEMENTS

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2 EXECUTIVE SUMMARY

2.1 Introduction

2.1.1 In this report we give critical consideration to the nature and effectiveness of harm minimisation in gambling. We identify gambling-related harm as both personal (e.g., health, wellbeing, relationships) and economic (e.g., financial) harm that occurs from exceeding one's disposable income or disposable leisure time. We have elected to use the term 'harm minimisation' as the most appropriate term for reducing the impact of problem gambling, given its breadth in regard to the range of goals it seeks to achieve, and the range of means by which they may be achieved.

2.1.2 We delineate different approaches to minimising gambling-related harm according to their domain: the product; operations; and the community. Accordingly, we have identified three categories of harm minimisation: 'product-based', 'operator-based' and 'community-based'. Operator-based harm minimisation is the specific focus of this report.

2.1.3 The extent to which an employee can proactively identify a problem gambler in a gambling venue is uncertain. Research suggests that indicators do exist, such as sessional information (e.g., duration or frequency of play) and negative emotional responses to gambling losses. However, the practical implications of requiring employees to identify and interact with customers suspected of experiencing harm are questionable, particularly as the employees may not possess the clinical intervention skills which may be necessary. Based on emerging evidence, behavioural indicators identifiable in industry-held data, could be used to identify customers experiencing harm. A programme of research is underway in Great Britain and in other jurisdictions examining these issues in both land-based and remote gambling environments.

2.2 Facilitating Awareness

2.2.1 Problem gamblers often have pre-existing vulnerabilities to making poor and impulsive decisions due to an interaction of cognitive and neurological factors. It is therefore unlikely that the presentation of information to such gamblers regarding their behaviour or the structural characteristics of the product will have a significant impact on future gambling behaviour in this group.

2.2.2 For customers who are not problem gamblers, the provision of information to improve awareness is more likely to be absorbed and used to determine future gambling behaviour if it is personally relevant, specific to their play, and presented in a framework that assists the customer to make their decision, rather than as a warning. Gamblers are more likely to attend to such information if it interrupts game-play.

2.3. Facilitating Control

2.3.1 Current evidence, based primarily on self-report data and from studies containing methodological weaknesses, does suggest pre-commitment can be a useful tool. Self-report data indicate that a proportion of gamblers benefit by better controlling their gambling expenditure and reducing their motivation to chase losses. On this basis, pre-commitment should be a facility that is available to all gaming machine and Internet gamblers.

2.3.2 The voluntary take-up of pre-commitment options among players is relatively low. Strategies designed to increase awareness and understanding of the nature and purpose of pre-commitment should be introduced. Pre-commitment should be presented as a budget management tool, rather than as an intervention for problem gambling, as this will serve to normalise its use for all gamblers.

2.3.3 Cooling-off periods are useful in allowing gamblers to reconsider decisions made to increase expenditure limits. Such cooling-off periods are common in larger commercial transactions where contracted purchases can be rescinded without penalty within a specified time. Although cooling-off periods are recommended, the exact length of time, whether 24 or 48 hours or longer is sufficient, is an arbitrary decision. The longer the time frame, the more likely that emotional factors driving motivations may subside, resulting in more considered gambling.

2.3.4 Evidence suggests that ready and easy access to cash withdrawals fuels gambling losses. Accordingly, it is recommended that ATMs and over the counter provisions of cash (e.g., debit cards) at gaming venues be removed, or relatively low daily withdrawal limits set if retained.

2.4 Restricting Access – Age Restrictions

2.4.1 There is a paucity of evidence on the long-term impact of early exposure to gambling behaviour; however, age restrictions remain critically important to minimising harm. This is because younger consumers have a higher predisposition for risk-taking, and lower levels of both competence and experience in making financial transactions, particularly in complex environments (e.g., e-commerce).

2.4.2 Operators play a significant role in ensuring age restriction is enforced, e.g., through player communication or staff training and intervention. Training should communicate the potential implications for the employee, the consumer and the organisation that result from failure to enforce age restrictions. Training should promote active rather than passive engagement (e.g., confirming age-appropriateness and not just possession of valid identification).

2.4.3 Some of the responsibility of enforcing age restrictions falls outside of the operator's remit. Resources from within a young person's social environment (e.g., friends and family) play a significant role in helping young people to circumvent age verification in retail environments. Consequently, there is a need to educate parents, most likely through public marketing.

2.5 Restricting Access – Self-Exclusion

2.5.1 Existing research offers limited insight into the challenges related to self-exclusion in Great Britain. Most studies are outdated, specific to a particular product or jurisdiction, rely on weak research designs, and draw from self-selected samples.

2.5.2 Exclusion should not be promoted as a tool for supporting abstinence from gambling only; rather, it should also evolve as a tool to support control. A high degree of flexibility regarding both the duration and the product tied to the exclusion agreement would be

ideal. Those gamblers interested in longer-term, more comprehensive restrictions can achieve this from a flexible system, and those wishing to exclude for a particular period of time or from a particular product would also be able to benefit. However, the relative impact on resources versus the impact on harm minimisation is yet to be determined. Further examination of these issues is an important next step.

2.5.3 The potential effectiveness of self-exclusion is undermined by the opportunity to gamble at different venues, with different operators, on different products, and even in different jurisdictions. While technological developments increase accessibility to gambling, they also facilitate securely sharing information on a large scale and therefore create opportunities for multi-operator self-exclusion. However, initial feasibility studies have identified a series of potential challenges demonstrating that any self-exclusion solution involving multiple operators will not be straightforward or amenable to swift implementation.

2.6 Responsible Marketing

2.6.1 The impact of advertising on gambling behaviour and gambling-related harm is difficult to measure in isolation because it is tied to multiple other environmental variables, and therefore must be investigated as a component of a wider environmental framework.

2.6.2 For gambling advertising to be effective in increasing the likelihood of participation the activity is usually framed as a positive and socially accepted leisure activity. However, these positive presentations of gambling are rarely counterbalanced with potential negative consequences of participation, which may create unrealistic perceptions of gambling. Ultimately, it is unlikely that embedded socially responsible gambling messages in gambling advertisements promote responsible gambling behaviour.

2.7 Conclusions and Recommendations

2.7.1 Attempts should be made to engage the player with responsible and problem gambling guidance before significant harm is experienced. It is proposed that sufficient responsible gambling intervention training, alongside a candid specification of staff responsibilities, would increase staff self-efficacy in this context. It was also observed that players often do not self-identify because they lack awareness about what forms of assistance gambling staff may be able to offer. Consideration should also be given to the provision of such information in population-wide public health awareness campaigns, rather than simply focussing on what can be achieved within the gambling environment.

2.7.2 The mandatory requirement for all gaming machines and regulated online gambling accounts to have pre-commitment facilities offering players the option of voluntarily setting time and monetary limits should be introduced. This would allow players experiencing difficulties controlling their expenditure a tool to limit their losses. It would also target recreational gamblers motivated to use these optional tools to manage their gambling budget.

2.7.3 There is empirical support and some consensus among experts that in order to improve effectiveness, self-exclusion protocols should be: actively yet strategically promoted; quick and simple to implement; administered by attentive, well-trained staff;

attracting sufficient investment in resources and technology to improve enforcement; and comprehensive rather than isolated in coverage (where feasible). There is compelling justification for continuing to explore the opportunities for connecting self-exclusion across venues and operators.

2.7.4 In principle, we consider flexibility and control in harm minimisation measures to be a good thing provided such measures are irrevocable. The challenge here is determining how such conditions might best be achieved and agreeing whether outcomes merit required levels of investment in staffing, technology and administration.

2.7.5 Attempts to minimise gambling-related harm should be evaluated wherever possible. As identified in previous research, when evaluating harm minimisation the following should be attempted: the contribution of each intervention should be assessed; the sample should be sufficiently large to carry out appropriate statistical tests; appropriate, measurable dependent variables should be identified and used (e.g., reductions in problem gambling, changes in attitudes); a control group should be included to reduce the possibility that changes resulted from something other than the harm minimisation initiative; follow-up measures should be used to determine whether impact is temporary and new learning, where valid and reliable, should be widely disseminated in a variety of formats to ensure findings are accessible to the widest range of stakeholders.

2.7.6 A fundamental area for improvement concerns the codes of practices covering gambling harm minimisation. Whether guidelines are voluntary, mandatory for trade body membership or a regulatory requirement, more specificity is required. However, in reality this is difficult as a result of the absence of evidence regarding what works best. Such prescription is important regarding the identification of triggers for operator-based action and specifying details of the action that should be undertaken. Currently there is too much room for interpretation. Evaluating and documenting harm minimisation efforts (as detailed above) is critical to the long-term development of effective and fair codes of practice.

2.8 Priorities for Research

2.8.1 There are a number of priorities for research arising from this review:

2.8.1.1 Investigating the impact of various forms of in-game dynamic messaging (e.g., behavioural feedback versus general responsible gambling information) on the key indicators of harm;

2.8.1.2 Exploring employee awareness and understanding of their responsibilities with regards to interacting with players who may be experiencing harm or demonstrating distress in relation to their gambling to inform training development;

2.8.1.3 Exploring strategies to increase player awareness of responsible gambling measures available within the venue (e.g., through static and dynamic messaging, audio announcements and staff interaction);

2.8.1.4 Undertaking a detailed consideration of the technical, operational and legal issues that will facilitate or constrain the range of solutions to the enforcement of self-exclusion;

2.8.1.5 Investigating industry and player perspectives on more innovative approaches to self-exclusion (e.g. disentitlement options, product-specific exclusion) to identify areas for robust empirical research to generate evidence regarding the impact of such approaches;
2.8.1.6 Identification and trial of technology to facilitate the enforcement of self-exclusion;
2.8.1.7 Exploring the impact of various types of advertising content and form (including social media) on intentions and attitudes toward gambling and responsible gambling.

3 INTRODUCTION

3.1 SCOPE AND STRUCTURE OF REPORT

The primary aim of this report is to give critical consideration to current knowledge and understanding regarding harm minimisation in gambling. The intended audience is broad since various individuals, organisations and groups have some stake in this issue. However, where appropriate, we do consider the evidence and potential implications with the British context in mind. We have opted to focus on what we, as researchers and academics, know best; the theoretical and empirical contributions to understanding harm minimisation in gambling. While we anticipate that this report might help inform operational and regulatory decision-making, we only make reference to operational and regulatory issues in passing where we deem it relevant. We accept that those with operational or regulatory backgrounds are better placed to give detailed examinations of the issues more relevant to their domain. This report extends to consider operational and regulatory issues through identifying priority areas for research and offering initial guidance advice on how existing research findings could be applied in operator-based approaches to harm minimisation. While this report has been written with the British context in mind, we consider that most issues will have some relevance at an international level also.

It should be noted that concurrent work is being done in Great Britain by both the regulator and industry in response to concerns about the impact of high stake and prize gaming machines upon local communities and problem gambling. The regulator is currently reviewing social responsibility provisions found within its Licence Conditions and Codes of Practice (LCCP), with a view to establishing where greater degrees of player protection or player monitoring may need to be mandated. Specifically, it is considering the case for improving measures in the areas of customer interaction and self-exclusion, along with stronger controls to prevent underage gambling and improving the quality of information provided to game players (see Appendix 2).

In this chapter we classify forms of harm minimisation in order to organise our coverage of the issues and to delineate scope. We have chosen to classify approaches according to their source of implementation and management. This report takes a first step at looking at harm minimisation by considering the second category of approaches outlined below, namely, operator-based approaches. Also in this chapter, prior to considering the minimisation of harm in the rest of this report, we give some initial consideration to the issues surrounding 'operator-based harm identification'. In chapters 5 to 8 we then consider the issues in relation to facilitating awareness and control of among consumers engaging in gambling; to restricting access to gambling products; and to ensuring that marketing functions operate in a transparent and responsible way. Conclusions, recommendations and suggestions for future research follow in chapters 9 and 10.

3.2 APPROACH

Appropriate literature for this paper was identified in three concurrent phases: a search of online electronic databases; grey literature accessed through web-based searches, personal knowledge and professional contacts and through 'snowballing' where references of references are pursued (Greenhalgh & Peacock, 2005).

Academic databases searched included: Academic Search Elite, Business Source Complete, PsychArticles, PsychInfo, Science Direct and Scopus. In addition, generalist web search engines (Google, and subsequently Google Scholar) were also used to identify relevant grey literature or technical reports not subject to traditional peer-review processes. Other relevant literature has also been considered using a similar approach where an appropriate link has been made with harm minimisation.

3.3 Background to Harm Minimisation

3.3.1 Conceptualising Gambling-Related Harm

The term 'gambling-related harm' refers to any significant negative consequences which result from gambling in excess of what the consumer can afford in terms of either time or money (Blaszczysnki, 2013; Blaszczynski, Ladouceur and Moodie, 2008; Neal Delfabbro and Oneil, 2005). More specifically, Blaszczysnki (2013, p. 65) explains that: "*These parameters set the threshold of affordability for gambling; once the disposable income and time thresholds are exceeded, opportunity costs are incurred; that is, money and time intended for other expenses or social/family purposes are redirected to gambling. In this context, harm emanating from these two sources can range along a continuum from intermittent and inconsequential to recurrent and extremely severe; such harms can be construed as potentially affecting the full spectrum of participants from recreational through to problem gamblers*."

The Victorian Competition and Efficiency Commission (2012) categorises harm from problem gambling as follows:

- *Economic harm*: including direct and indirect impacts on resources: provision of treatment services, costs associated with lost productivity, bankruptcy, and divorce, involvement of judicial and regulatory systems, and financial costs incurred by excessive losses, and;
- *Personal harm*: including emotional distress, relationship conflicts, and psychiatric morbidities. The intangible costs associated with the impact on mental wellbeing, the Commission concluded, accounted for the substantial proportion of overall social and economic costs of excessive gambling.

Estimating the costs of problem gambling is complex given that data can often be unreliable, issues of causality are not straightforward, and there exists a lack of consensus on best approach to categorise and assess impacts (Victorian Competition and Efficiency Commission, 2012).

3.3.2 Conceptualising Harm Minimisation

There are in regular usage a significant number of terms describing attempts to reduce harm in relation to behaviours that may have a negative impact on health and wellbeing. The specificity of such terms is, to some extent, ambiguous, with some concepts often being used interchangeably, failing to reflect any substantive or subtle distinctions in approach that may exist.

A 'harm reduction' approach, arguably the most commonly-used term of reference for the broad concept of averting harm, is often seen as a compromise between abstinence and harmful participation in a high risk behaviour (Marlatt et al., 2011). We would argue that this term carries with it the assumption that even modest participation may potentially be

harmful, and stems from work in other health-related behaviours where this is more likely to be true (e.g., illicit drug use, tobacco). For this reason, this term may not be particularly well-suited to behaviours such as gambling, where modest participation does not necessarily impact health and wellbeing (see Forrest, 2013).

Other potentially conflated terms include, but are not limited to, harm 'prevention', 'reduction', 'mitigation' and 'minimisation'. While usage of such terms may reflect historical development in various guises in public health, and/or different schools of thought in relation to epidemiology, for the purposes of this review we are keen to focus on what 'term' makes most intuitive appeal, and in doing so, avoiding ambiguity regarding its usage.

'Harm prevention' is considered by some to be the most laudable of intervention terminology in that it could be taken to imply the avoidance of problems before they begin. However, it could also be argued that the term 'prevention', by definition, does not address those who are already experiencing gambling-related harm. In addition, using 'harm prevention' raises the question of whether the existence of harm would be indicative of failure if described in these terms.

The term 'harm mitigation' is broader than 'reduction' or 'prevention'; however, it does not emphasise the need and the desire to mitigate harm to the lowest possible level. It is for these reasons, and in ignoring traditional usage of these concepts, that for the purposes of this paper we have opted to refer to 'harm minimisation' as the preferred term of reference for averting harm. By definition, the term 'minimisation' denotes bringing the severity and extent of harm to the lowest level.[1] It is with that specific aim in reference to gambling that we consider the evidence and formulate this report.

3.3.3 Classifying Approaches to Harm Minimisation

As with most forms of classification in the social sciences, maintaining mutually exclusive categories is difficult, and any attempt to delineate should be seen as indicative rather than definitive. We have opted to classify broad approaches to minimising harm according to their domain: the product; operations; and the community.

3.3.3.1 Product-based approaches

Product-based approaches relate to the configuration of the core properties of a gambling game. Such approaches include restrictions on game parameters such as stake, prize, speed, payment methods, payback percentage, partial credits, decimal wins, 'losses-disguised as wins' (Dixon, Harrigan, Sandhu, Collins & Fugelsang, 2010), volatility, and near wins. Also included in this category are 'game design protocols'; an approach used to systematically evaluate, categorise and address potential risks of a gambling game based on its core properties. 'Guidance about Responsible Design' (GAM-GaRD; Griffiths, Wood & Parke, 2008) and the Assessment Tool to Measure and Evaluate the Risk Potential of Gambling Products

[1] It could be argued that 'harm mitigation' as a term may be more appropriate in this case since it allows for a balancing of impact, effectiveness and cost. However, we suggest 'harm minimisation' in this case can be taken to refer to minimising harm with the implication that some harm is unavoidable but that the aim is to achieve its lowest possible level at the individual and societal level in way that represents efficient use of resources dedicated to harm minimisation in gambling.

(AsTERIG: Blanco, Blaszczynski, Clement, Derevensky et al., 2013) are the two most common game design protocols.

3.3.3.2 Operations-based approaches

Operations-based approaches (the focus of this report) cover harm minimisation strategies that are enacted through a gambling operator's website, land-based venue or by direct marketing. We have identified the four components of operator-based harm minimisation:

- *'Restricting Access'* which includes venue or site-based restrictions such as age restriction and self-exclusion;
- '*Facilitating Control'* by supporting customers to control their gambling through tools such as limit-setting (time, money and pre-commitment) cooling-off periods, and restricting access to additional funds;
- *'Facilitating Awareness'* by providing session histories (e.g., money and time spent), problem gambling information, advice and referral and promoting game transparency by enhancing understanding of how games work and outcomes are determined;
- *'Responsible Marketing'* whereby rules for promotions and inducements are transparent, non-proportional to time or money spent, and advertising is responsible, adhering to appropriate codes.

3.3.3.3 Community-based approaches

The community-based category of approaches to harm minimisation is the broadest of the three categories as it encompasses all efforts beyond modifications to the game or approaches executed at venue or site-level. This category includes education and prevention initiatives, including but not limited to; promoting a better understanding of probability, the nature and signs indicative of gambling-related harm, how games actually work and how gambling outcomes are determined. Education may also cover flawed reasoning which inappropriately influences gambling behaviour (e.g., cognitive biases) and the provision of more practical general knowledge relating to money management and debt. Community-based approaches also include 'location-based restrictions' on density, proximity and distribution of gambling venues. Perhaps the most obvious form of community-based harm minimisation relates to therapeutic inventions and support. This also refers to broader environmental influences such as culture and media and their impact on normative values, particularly on younger consumers.

3.3.3.4 Other considerations

In addition to the above approaches, *staff training*[2] is also relevant. However, we consider this to be an 'input' into, rather than an 'output' from, operations-based approaches. In other words, appropriate staff training does not necessarily ensure nor preclude effective operations-based harm minimisation, but is a useful means for preparing and educating staff to improve their ability to limit harm in their venue.

Additionally, the term 'interaction' is often identified as an approach to harm minimisation. However, we consider this to be a more general term which, by definition, represents a means of communication and/or implementation of operator-based approaches. For example,

[2] *A review of staff training by the Responsible Gambling Trust is being executed concurrent with this report.*

promotion of self-exclusion or notification of a spend limit would be communicated through interaction.

Finally, a necessary first step for the minimisation of harm is the identification of harm. Harm identification is possible through using a variety of methods including clinical interview, population level screens, behavioural indicators exhibited by player either through their overt behaviour during play or as manifested in the data collected in relation to their specific game play. While some consideration is given to behavioural indicators in this report, a review of potential indicators of harm is concurrently being executed.[3]

3.4 Operator-Based Harm Identification

The proactive identification of harm can inform and drive operator-based harm minimisation (e.g., facilitating awareness through feedback; facilitating control through limit-setting and restrictions on access to additional funds; and through restricting access to gambling altogether).

3.4.1 The Importance of Harm Identification

The ability to identify gambling-related harm is a necessary prerequisite to promoting player-led rather than a 'blanket' approach to regulatory control over harm minimisation in gambling. Harm identification can be used to:

- Detect individuals who may be experiencing harm;
- Focus harm minimisation while minimising any negative impact on the gambling experience among non-problem gamblers;
- Evaluate impact of harm minimisation (e.g., having a suitable dependent variable such as harm is critical for evaluating impact);
- Communicate to players to facilitate awareness and control by sharing the following information:
    - Factual information about potentially harmful behaviour;
    - Providing feedback to inform consumer self-regulation;
    - Prompting staff interaction where appropriate (land-based);
    - Remote communication promoting harm minimisation tools (remote);
    - Voluntary and/or mandatory requests to relevant consumers to use limits and other self-regulation tools.

Developing the ability to identify harm can also improve our understanding of problem gambling (academic, regulatory and commercial implications) and improve organisational profile (giving back to the community by significantly advancing stakeholder understanding of problem gambling).

3.4.2 Displayed Behavioural Indicators of Potential Harm

The extent to which an employee can proactively identify a problem gambler or at-risk problem gambler is uncertain (Allcock, Blaszczynski, Dickerson, Earl, Haw, Ladouceur et al., 2002; Hing & Nuske, 2011b). Meyer and Hayer (2008) advocate that even in terrestrial gambling environments there are mechanisms available to identify potential problem

[3] *Report being led by the National Centre for Social Research (NatCen)*

gamblers via observation of behavioural information. Both Schellinck and Schrans (2004) and Delfabbro, Osborn, Nevile, Skelt and McMillen (2007) were successful in identifying a range of behavioural characteristics that employees could actively observe within gambling environments to identify probable problem gamblers. For example, in a study of machine gamblers in a Nova Scotia casino, Schellinck and Schrans (2004) identified several risk factors for problem gambling including engaging in a session for more than 180 minutes and the use of ATM transactions. Furthermore, Delfabbro et al., (2007) using a combination of observational and survey methods, identified that emotional reactions when gambling, such as displaying anger, were a reliable indicator of problem gambling. Nevertheless, both groups were reticent about the practical capacity of a busy, relatively untrained venue employee to accurately and effectively observe patrons for a culmination of specified behavioural characteristics.

Moreover, beyond simple awareness of potential behavioural indicators of probable problem gambling, employees will require significant interpersonal and communication skills in order to address customers in distress in a non-confrontational and supportive manner (Hing & Nuske, 2011b). Indeed, Hing and Nuske (2011b) strongly advocate that professional counsellors must be involved in the training of gambling staff in responsible gambling practice, and customer interaction in particular, in terms of developing employees' listening and communication skills, and ability to manage potentially difficult and challenging customer interaction. Given the high level of interpersonal skills and attributes needed, and therefore training required, in order to enable employees to proactively intervene with customers who are displaying problem gambling behavioural indicators, perhaps it may be more efficient and effective to consider employing responsible gambling specific employees. Such responsible gambling specific employees would receive a high level of professional training in order to interact effectively with customers, and they would be in a privileged position to observe and monitor behaviour for problem gambling indicators without compromising other employee roles such as serving customers. In the case of smaller venues such staff might work across multiple sites.

3.4.3 Data-Captured Behavioural Indicators of Potential Harm

Various experts have noted the potential value of using industry-held data for the purposes of gambling research or harm minimisation (Braverman and Shaffer, 2012; Delfabbro, King and Griffiths, 2012; Dragcevic, Percy, Kudic and Parke, 2013; Gainsbury, 2011; Griffiths, 2012, LaPlante, et al., 2012; Parke, 2011). A key harm minimisation objective using such data is the development and validation of 'suspected behavioural profiles' associated with gambling-related harm. Based on evidence where available (e.g., Braverman, LaPlante, Nelson and Shaffer, 2013; Delfabbro et al., 2007; Gray, LaPlante & Shaffer, 2012; Hafeli and Schneider, 2005; LaPlante, Nelson and Gray, 2013) and plausible argument (Griffiths, 2012; Wardle, Parke and Excell, 2014), a series of behavioural indicators (e.g., chasing, frequency, duration, net expenditure, deposit behaviour, complaints, etc.) could be identified to initiate a process of

checking the data-captured behavioural indicators both in terms of existence in the data and more importantly how they relate to variables indicating harm or loss of control.[4]

This could be done by using problem gambling screens and/or clinical data but should rely on neither conventional wisdom (e.g., spending more time or money) nor unreliable proxies for harm (e.g., self-exclusion). The ongoing goal of developing the accuracy of any algorithm is critically important to avoid a) failing to predict or detect when harm exists (false negatives), and b) predicting or identifying harm when it does not exist (false positives). However, it should be noted that even where some indicators provide only modest accuracy, they may still have indicative value in harm minimisation efforts. For example, screening out those very unlikely to have a problem yet still leaving a significant proportion of false positives may be preferable to some blanket restrictions. As with most forms of harm prevention, the critical consideration is that the various limitations of a particular strategy are acknowledged and considered in their eventual application.

[4] The Responsible Gambling Trust has commissioned NatCen and Featurespace to explore the feasibility of using land-based gaming machine data to identify gambling-related harm. Results from this project are expected towards the end of 2014.

4 FACILITATING AWARENESS

4.1 BEHAVIOURAL INFORMATION AND GAME TRANSPARENCY

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

Research demonstrates that a large proportion of individuals have lowered self-awareness of behaviour when gambling, through a process of dissociation (Powell, Hardoon, Derevensky & Gupta, 1996) and narrowed attention (Diskin & Hodgins, 1999). As a result, it is common for rational decision-making in gambling to erode during gambling sessions as players become increasingly stimulated (Dickerson, 1993). Therefore, in an attempt to limit irrational gambling behaviour, and gambling beyond what 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 by providing easily understood, relevant information in a timely fashion. Fundamentally, this refers to the provision of:

- Personal Behavioural Information: information that outlines to the player the total amount of money that they have spent, the net expenditure (total spent minus total won) and how much time they have spent gambling

- Game Transparency Information: information that outlines to the player how the game operates including primarily the probability of winning and the mechanism for the determination of betting outcomes (for example, whether a Random Number Generator is used).

However, the process is more challenging than one would initially assume, because the structural and situational characteristics of gambling may not be conducive to supporting self-regulation and self-control. For example, Dickerson (1993) argues that gambling activities that are continuous, i.e., games where there is an opportunity to re-gamble money rapidly, are more likely to produce impaired control Furthermore, the individuals who are most at risk of experiencing gambling-related harm are less inclined to utilise information related to potential risk.

4.1.1 Most Vulnerable Participants have Pre-morbid Impulsivity

The information being presented in a harm minimisation capacity is not perceived as a problem gambling intervention but rather a preventative measure for all customers, to limit the potential for experiencing gambling-related harm. However, it must be noted that many of those individuals who are most at risk of engaging in problem gambling have specific

vulnerabilities[5] which mean that the provision of risk-related information is less likely to shape gambling behaviour and promote self-control.

A large proportion of problem gamblers have a pre-morbid neuropsychological impairment in reflection impulsivity and risky decision-making (Lawrence, Luty, Bogdan, Sahakian & Clark, 2009). Reflection Impulsivity refers to a tendency to reflect over alternative-solution possibilities in situations with high uncertainty, in contrast to a tendency to select responses impulsively (Kagan, 1965). Essentially, players that go on to become problem gamblers are often, by nature, less likely to be cautious in their approach to gambling.

Lawrence et al. (2009) demonstrated experimentally that, in response to tasks with inherent uncertainty, problem gamblers were less inclined to seek further information to assist decision-making, and tolerated more uncertainty in their responses than controls. Effectively, problem gamblers, by nature, when faced with a risky situation such as gambling are less likely to actively search for information or guidance than normal populations. Furthermore, in the Cambridge Gambling Task, problem gamblers were shown to make more wagers that were incongruent with probability knowledge, and decisions were made more rapidly with shorter latency between situation provision and response (Lawrence et al., 2009). Ultimately, when considering how to minimise harm in gambling by facilitating player awareness, it must be understood that those players who are most *at risk* of experiencing gambling-related harm are by nature more likely to ignore information provided to assist in controlled self-regulated gambling.

It is argued that problem gamblers are often highly impulsive individuals and have reduced cognitive engagement when gambling (Sharpe, 2003; Sharpe & Tarrier, 1993). Ultimately, problem gamblers are likely to have behavioural deficits in self-regulation, because of abnormality in the pre-frontal cortex and the subcortico-cortical networks, meaning diminished executive functioning[6] (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 reduced judgement and optimal decision-making, and therefore are more likely to find themselves spending beyond what they can reasonably afford.

As a result of problem gamblers' pre-morbid vulnerabilities to impulsivity and less optimal decision-making, it is important that, when assessing the impact of specific harm minimisation approaches to facilitate self-awareness, samples are drawn from populations with similar vulnerabilities. Essentially, in order for harm minimisation approaches to limit gambling-related harm through facilitating awareness, the strategies must be shown to be effective for the populations that have greatest difficulty in maintaining self-awareness when gambling, rather non-problem gamblers.

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[5] 'Vulnerabilities' relates to players having neurological impairments (i.e. sub-optimal processing), which in combination with cognitive distortions and specific emotional states, means there is a higher probability of poor decisions being made and less likelihood that the individual will engage in self-control.

[6] 'Executive functioning' relates to the management of cognitive processes, like reasoning and problem solving, that enable the individual to think and act in response to their environment.

4.1.2 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. For example, Ladouceur, Sylvain, Boutin and Doucet (2002) demonstrated that by correcting problem gamblers' erroneous cognitions and misconceptions of probability and likelihood of winning, gambling behaviour could be moderated.

However, in practical application of such public health campaigns with respect to other health behaviours, such as tobacco and alcohol consumption, there appears to be a lack of empirical evidence demonstrating the effectiveness of information provision regarding risk (Hammond, Fong, McNeill, Borland & Cummings, 2006; Stockley, 2001). With respect to awareness of probability, it was observed that campaigns may increase an individual's awareness of the risks of participation in gambling; however, they were relatively ineffective in moderating 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 and gambling participation and sound gambling decision-making (Evans, Kemish & Turnbull, 2004; Hertwig, Barron, Weber & Erev, 2004; Steenbergh, Whelan, Meyers, May & Floyd, 2004; Monaghan & Blaszczynski, 2007; Williams & Connolly, 2006). Furthermore, as identified by Monaghan and Blaszczynski (2010a), there are 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 a paucity of 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 & Blaszczynski, 2010a).

Crucially, the information presented within behavioural and game transparency information must be provided in a supportive framework, rather than as *warnings* aimed at reducing participation, if harm reduction is to be achieved. Autonomy is acknowledged to be a fundamental psychological need in order to maintain well-being and psychological functioning. Self Determination Theory (Deci & Ryan, 1985; 2000) posits that individuals have a need to engage in behaviour that is determined through application of one's own values and desires, rather than behaviour being shaped through external influences. In application, Williams, McGregor, Sharp, Levesque, Kouides and Ryan (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. Essentially, the more autonomy is facilitated, the more the individual is motivated in responding adaptively when presented with risk information, and furthermore, the more perceived behavioural control they experience in terms of such adaptive responses (Pavey & Sparks, 2010). Pavey and Sparks (2010) contend that for the information to be absorbed and utilised, the message must have high perceived information

value, in terms of the information being seen as accurate and informative. 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). Put simply, the message presented within the behavioural information such as net expenditure or game probability must not present gambling in a negative manner or promote cessation, because this will be incongruent with the gambler's preferences and values, and therefore the message is not likely to be absorbed and modify behaviour. Rather, the information must be presented in a neutral tone, emphasising the autonomy of the individual to use the information to make informed choices, whatever such choices may be.

4.1.3 Effective Framing of Information to Stimulate Behaviour Modification

With the objective of supporting autonomy within the presentation of risk information in gambling, it is advisable to present the information in a framework that stimulates personal evaluation of behaviour. Essentially, if the information stimulates self-awareness,[7] such as net expenditure or game probability, the gambler is presented with an opportunity to evaluate it in contrast to their own beliefs and objectives, and consider suitable responses (Monaghan & Blaszczynski, 2010b). For example, information that demonstrates a large incurred gambling loss and is presented in a framework that stimulates self-evaluation will empower the individual to respond positively, rather than presenting the information as a paternalistic warning, and therefore likely to be dismissed.

Presenting information in a framework that stimulates self-evaluation is also important because it increases the probability that the information will not be automatically dismissed as not being personally relevant. Research from parallel health risk behaviours such as nicotine and alcohol use indicates that when negative warning information is starkly presented, individuals that are not currently experiencing harm will disregard the information as not being personally relevant, and therefore the information will have limited preventative utility (Monaghan & Blaszczynski, 2010a; 2010b). Furthermore, the likelihood of the content of the message being attended to and acted upon is determined by the perceived personal relevance (Wogalter, 2006); therefore it is crucial to frame information as being for all participants, whether they currently exhibit problem gambling behaviour or not. A further argument to encourage framing the information as self-awareness is that most experienced gamblers will feel confident in their knowledge of a game in terms of transparency and potential risk (Rodda & Cowie, 2005; Hing, 2004). As a result, if the message does not promote the individual to self-evaluate and instead presents the same information repeatedly, it is argued that impact of the message 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). It

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[7] *'Self-Awareness' in this context relates to becoming consciously aware of information that will assist in making appropriate decisions.*

is argued from a cognitive perspective that, without interrupting the current task i.e., gambling, the individual is unlikely to have sufficient cognitive capacity to continue to engage in the task and simultaneously comprehend the information available, in this case knowledge of time and net monetary expenditure (Hegarty & Just, 1993). It is immediately clear that some gambling activities, in terms of physical and structural characteristics, could enable the interruption of the activity to present behavioural or game information better than other gambling formats. For example, digital formats of gambling that operate via software programs such as online gambling or server-based gaming machines can adopt such information delivery procedures relatively easily; it will be more challenging for less technology-based, traditional terrestrial gambling activities such as casino games and bingo.

There is an argument that interrupting game-play may irritate gamblers, who in response will interpret the subsequent information negatively and potentially disregard the information (Ha, 1996), however it is also argued that such brief, relevant information, that is not overly paternalistic, will not be perceived negatively (Edwards, Li & Lee, 2002). Perhaps more importantly, evidence from early explorative studies indicates that the provision of information that interrupts gambling tasks, 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). However, it must be noted that such studies included significant methodological limitations (e.g., self-report data, and gambling not including monetary loss), but there certainly appears to be support for further empirical investigation into the most effective mode of delivery for responsible gambling messaging.

In terms of the content of information provided regarding behavioural information and game transparency, research suggests that simplistic, uncomplicated presentation of risk information is more rapidly and readily comprehended, and therefore more likely to stimulate adaptive response (Wogalter, Conzola & Smith-Jackson, 2002). This has been clearly demonstrated in research looking at the impact of nutritional labels on healthy eating behaviour (Bialkova & van Trijp, 2010; Hersey, Wohlgenant, Arsenault, Kosa & Muth, 2013). As previously acknowledged, given the commonly observed pre-morbid impulsivity of problem gamblers it is fundamental when assessing the impact of presenting such information during gambling sessions that experimental designs must consist of at-risk populations.

4.1.4 Motivating Self-Awareness and Moderate Gambling

Finally, rather than presenting information with the objective of enhancing informed choice through descriptive notifications, it appears that the provision of guidance and alternative behaviours increases probability of behaviour modification. Monaghan and Blaszczynski (2010a) argue that the provision of 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. The provision of alternative behaviours as player options merely reinforces the perception of autonomy and assists with individuals' making fully informed choices. Indeed, given that the messages focus on maintaining self-awareness of behaviour rather than advocating reduction in behaviour or cessation, it is more likely that information will be received positively, as there is a minimal perceived cost in remaining self-aware (Monaghan & Blaszczynski, 2010a).

Research demonstrates that most gamblers are in favour of the provision of responsible gambling features (Ladouceur, Blaszczynski & Lalande, 2012; Parke, Rigbye & Parke, 2008;

Parke, Parke, Rigbye, Suhonen & Vaughan-Williams, 2012; Schellinck & Shrans, 2007). Furthermore, explorative research indicates that some players perceive the introduction of responsible gambling features as an indication of the trustworthiness and integrity of the gambling operator (Wood & Griffiths, 2008). With the emphasis of the information presented being on enhancing individual self-awareness and therefore informed choice, and such presentation of relevant information unlikely to be considered intrusive by players, it is probable that the gambling experience will remain intact. As a result, it is tentatively proposed that the gambling industry should engage widely in the provision of behavioural and game-transparency information. However, at present such guidelines can only be substantiated with conceptual and theoretical support, and therefore it is recommended that the gambling industry, in collaboration with academic researchers, experimentally investigate the most effective mode, content and schedule of information provision for minimising gambling-related harm.

4.1.5 Precision in Requirements in Licensing Conditions and Codes of Conduct

The Licence Conditions and Codes of Practice (Gambling Commission, 2011) are forthright in their stipulation that the gambling industry must actively include social responsibility provisions within their core day-to-day operational processes. With respect to the current issue of the presentation of information to assist self-awareness and fully informed choice, the code specifies that licensee procedures for social responsibility must include 'a commitment to and how they will contribute to public education on the risks of gambling and how to gamble safely' (Gambling Commission, 2011, p. 17). Furthermore, it is specified that licensees must provide information relating to any responsible gambling features available to customers and the provision of timers or other forms of reminders or reality checks *where available* (Gambling Commission, 2011, p. 23).

However, there is limited specification provided within the licensing conditions. This is probably the consequence of the paucity of empirical evidence outlining the most effective strategy to meet such social responsibility requirements. Those drawing up codes identifying best practice in harm minimisation (i.e., regulators or trade associations) have a difficult job in that they must strike the balance between offering sufficient guidance on appropriate operator conduct but at the same time avoid prescribing or mandating requirements that are onerous (or potentially even counterproductive) without a good case. A good case, in this instance, might include a priori arguments with logical, plausible bases in the absence of empirical evidence.

It is proposed that if responsible gambling codes were more prescriptive of the licensing requirements and obligations, operators would be more motivated to comply and perhaps be more proactive in their approach to responsible gambling. With a detailed outline of standards and benchmarks, operators should be assured that requirements are supported by empirical evidence and therefore will be likely to be effective, and there would be less ambiguity about what steps must be taken, removing any indecision. This again outlines the importance of evaluating and documenting impacts of operator-based harm minimisation work currently under way. Essentially, a comprehensive research programme is required to address these questions, employing experimental designs that are ecologically and internally valid rather than relying on non-monetary gambling simulations and self-report of non-gambling populations.

4.1.6 Key Points

- Those most at risk of developing problem gambling often have pre-existing vulnerabilities in information processing, impulsivity and decision-making, and therefore are less likely to be receptive to, or utilise, information provided to assist self-control when gambling.
- As a result, it is recommended that when experimentally testing the impact of the provision of behavioural and game transparency information, experimental groups include participants that demonstrate similar pre-existing vulnerabilities.
- Evidence suggests that although the provision of information regarding the risks and probability of gambling may increase awareness, it is yet unclear to what extent it may translate to behavioural change.
- Behavioural and game transparency information must be presented in a supportive framework that facilitates informed decision-making and maintains individual autonomy.
- To increase the probability of the information being used to make informed decisions it is important to frame it in a way that stimulates the individual to engage in actions that lead to self-awareness.
- By engaging the individual in actions that lead to self-awareness, the information presented is more likely to be adopted because it remains personally relevant and it resists dismissal from over-exposure.
- It is argued that the presentation of behavioural information should be supported with the provision of alternative actions for the gambler to consider.
- It is recommended that, given it is unlikely that the brief presentation of personally relevant information will detract from the gambling experience, operators should facilitate such information provision. However, there is a paucity of empirical evidence outlining the most effective procedure for delivering such information to maximise effectiveness.
- For the information to be paid attention to it is important to interrupt the gambling activity.
- Explorative evidence indicates that information presentation that interrupts the gambling activity and stimulates the individual to engage in actions that lead to self-awareness, in comparison to general information provision, is relatively effective in modifying gambling behaviour. However, these findings cannot be accepted with confidence because of significant limitations in their methodological designs.
- Priority should be given to the ongoing development of guidelines and standards for harm minimisation, supported by empirical evidence. This should help operators enact appropriate harm minimisation approaches and assist the regulator to monitor progress on such approaches (voluntary or otherwise).

4.2 Problem Gambling Information and Referral

Problem gambling information and referral encompasses the operator's obligation, either moral or in compliance with a code of practice, to provide vulnerable patrons (and, potentially, significant others of vulnerable patrons) with information about problem gambling behaviour and potential options for seeking professional assistance with their gambling behaviour. There is an argument that an overly-paternalistic approach to providing vulnerable patrons

with problem gambling information and guidance on options for referral would be intrusive to the point of negatively affecting the gambling experience and encroaching on an individual's liberty and privacy. Rather, for the most part, the provision of problem gambling and referral information is provided in a reactive process where the customer self-identifies and requests information or assistance. A substantial limitation of the reactive approach is that a large percentage of problem gamblers do not seek help (Delfabbro, 2007; Slutske, 2006; Suurvali, Hodgins, Toneatto & Cunningham, 2008), and that assistance is not sought until after the individual has experienced significant harm (Weinstock, Burton, Rash, Moran, Biller & Krudelbach, 2011). Effectively, the earlier the at-risk party seeks assistance, the greater the opportunity to resolve or reduce potential harm, and therefore the increased probability of a positive outcome (Pulford, Bellringer, Abbott, Clarke, Hodgins & Williams, 2009).

It could be argued that a proactive approach in delivering problem gambling and referral information to customers who appear to be exhibiting distress or signs of problem gambling is not paternalistic intrusion, but rather an attempt to enhance informed choice (Prior-Johnson, Lindorff & McGuire, 2012). Paternalism is considered to be an active attempt to violate individual autonomy based on perceived concern, without the expressed consent of the individual in question (Prior-Johnson et al., 2012). It is reasonable to propose that patrons who are experiencing problem gambling symptoms may not be fully aware of this at that time, nor aware of what possible options for assistance are available (McMillen, Marshall, Murphy, Lorenzen & Waugh, 2004; Hodgins & el Guebaly, 2000). New (1999) proposes that when such knowledge deficiencies are likely to be present any intervention designed to enable the individual to make a more informed, rational decision cannot be considered intrusive or paternalistic. In other words, it may be justifiable to proactively provide problem gambling information in situations where the customer has not specifically requested information (Hing & Nuske, 2011a). From this, it could be proposed that in addition to current reactive provisions,[8] proactive information could also be provided. The most effective method in proactively providing information within the gambling environment is not presently known, and therefore more research is required before specific recommendations can be made. The key point to acknowledge is that problem gamblers are only likely to seek information when they are experiencing harm, and it is worth investigating whether there is scope to provide useful information to customers earlier in the process, before significant harm is experienced.

4.2.1 Customer Interaction and Problem Gambling Information

As part of the licensing conditions and code of practice, gambling operators licensed in Great Britain must 'put into effect policies and procedures for customer interaction where they have concerns that a customer's behaviour may indicate problem gambling (Gambling Commission, 2011, p. 24). It is further specified that employees must be aware of procedures, and understand the types of customer behaviour that may trigger interaction and also training all staff on their respective responsibilities.

From an international perspective, research indicates that whilst venue staff appear confident of protocol when customers actively seek information, there is often ambiguity regarding procedure and responsibility when staff observe customers clearly experiencing distress

[8] *'Reactive provisions' describes situations where players self-identify themselves as experiencing difficulties and needing assistance.*

(Delfabbro, Borgas & King, 2012; Hing & Nuske, 2011a; Hing & Nuske, 2011b; McCain, Tsai & Bellino, 2009). Evidence suggests that part of the uncertainty of staff in engaging in customer intervention is regarding the legitimacy of the process, and to what extent such intervention is perceived as a valued action by corporate management (Hing, 2007; Hing & Nuske, 2011a). Research clearly indicates that employees are in favour of further training in customer interaction in order to have clarification regarding procedures and responsibilities (Giroux, Boutin, Ladouceur, Lachance & Dufour, 2008; Hing, 200), and the Productivity Commission (2009) countenanced the case for all employees on the gaming floor to have such intervention training.

Ultimately, evidence suggests that staff who underwent responsible gambling training to provide problem gambling and referral information not only felt more confident and empowered to respond proactively to distressed customers, but were also more likely to intervene (Giroux et al., 2008; Ladouceur, Boutin, Doucet, Dumont, Provencher, Giroux et al., 2004). However, it is argued that management must more actively monitor customer intervention from floor staff, or online customer service staff, in terms of rewarding staff for effective interventions and potentially disciplining staff who did not respond appropriately in this respect (Kranacher, 2006; McCain et al., 2009). Although it may not be feasible to evaluate with any accuracy the validity or effectiveness of staff judgements and actions regarding customer interactions, the underlying proposition was to create mechanisms to demonstrate corporate support and commitment towards proactively providing problem gambling and referral information. Research clearly demonstrates that employees' perception of the ethical climate, via genuine managerial support, strongly influences whether they implement responsible gambling practices or not (Boo & Koh, 2001; McCain et al., 2009; Peterson, 2002).

4.2.2 Stimulating a Cultural Shift in Problem Gambling Information

Given the inherent challenges in proactively intervening and providing at-risk customers with problem gambling and referral information, it is argued that efforts should be made to reduce potential barriers to customers self-identifying themselves as experiencing problems and requiring assistance. Research indicates that lack of knowledge of available services is a primary barrier in customers seeking assistance (Hodgins & el Guebaly, 2000; McMillen et al., 2004; Rockloff & Schofield, 2004). Further reported barriers to seeking assistance include a lack of trust regarding confidentiality and uncertainty regarding the processes that will be initiated once the customer self-identifies as experiencing gambling difficulties and potential stigma (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 assurances of confidentiality.

Part of the reticence of employees in directly approaching a customer who has not self-identified is related to concern regarding hostile responses from customers who feel as though their privacy is being invaded without their consent (Hing & Nuske, 2011a; 2011b). As noted in previous studies, problem gamblers in the gambling environment are more likely to demonstrate negative emotional states such as anger and frustration (Delfabbro et al. 2007; Schellinck & Schrans, 2004). The probable negative emotional disposition of a problem gambler is likely to make the interaction with the customer even more challenging for the employee. Hing and Nuske (2011b) propose that attempts should be made to encourage a

cultural shift, where gamblers are informed that displays of distress or problem gambling behavioural indicators will stimulate customer interaction from employees. They propose a parallel is drawn to venue employees' intervention when customers appear overtly intoxicated, where staff intervention is perceived as within their legitimate rights and responsibilities, rather than as an unnecessary intrusion. However, it is fully acknowledged that creating support for and acceptance of such an ethical climate within gambling venues would require a considerable cultural shift emanating from significant public awareness campaigns (Hing & Nuske, 2011b).

Fundamentally, it is widely accepted that the current model of responsible gambling is overtly passive and reactive, and therefore not as effective as it should be (Reith, 2007; Productivity Commission, 2010). Indeed, similarly to the limitations in the provision of responsible gambling information in the licensing conditions and codes of practice discussed previously, the guidelines presented for staff training in responsible gambling and expectations in vulnerable customer interactions are equally inadequate. Effectively, the operators are given clear mandates to ensure that employees receive responsible gambling training and are made aware of their obligation to provide problem gambling information and assistance (LCCP: Gambling Commission, 2011, p. 24). However, there is minimal guidance provided for industry stakeholders outlining the required content of such training or more importantly 'best-practice' procedural guidelines to observe, based on empirical evidence.

4.2.3 Key Points

- Gambling employees are reticent to proactively intervene with customers demonstrating problem gambling behaviour because of uncertainty regarding their responsibilities and obligations.
- It is recommended that management actively demonstrate their commitment to proactively intervening with problem gamblers observed within the venue.
- It is recommended that gambling employees receive more substantial responsible gambling training, with significant contribution from professional counsellors to develop the requisite attributes for effective customer intervention.
- When customers are identified as probable problem gamblers, interaction should focus on discussing options for harm minimisation techniques such as limit setting (where possible), self-exclusion and if required, available options for seeking professional problem gambling intervention.
- The current approach of providing problem gambling and referral information in a reactive process could be enhanced by providing information earlier in the process, because customers only tend to seek assistance when they are experiencing significant harm. This is not to say that the reactive provision should be abandoned as it is effective, but rather, in addition, it may be possible to provide information before this point.
- It is recommended that attempts are made to reduce barriers to providing customers with problem gambling and referral information by making attempts to increase customer awareness about what assistance employees could offer.
- It is further recommended that attempts are made to create an expectation from customers that if they are presenting problem gambling characteristics or distress within a gambling environment, it is the employees' obligation to intervene.

- It is recommended that substantially more guidance and assistance is provided to gambling operators to assist their attempts to comply with their socially responsible obligations regarding employee responsible gambling training and the provision of problem gambling and referral information. Furthermore, consideration should be given to providing incentives to employees who conduct such interactions appropriately and effectively.

5 FACILITATING CONTROL

5.1 LIMIT SETTING (TIME, MONEY AND PRE-COMMITMENT)

There is consistent research evidence indicating that individuals frequently fail to resist the urge to gamble more than intended during sessions of play (Blaszczynski, Ladouceur & Lalande, 2008). These individuals make impulsive decisions that override their pre-session intentions to allocate a set amount of time and money with which to gamble. This shift in decisions made may be motivated by the desire to prolong states of dissociation or need for emotional escape, desire to prolong excitement, impulsively choosing short term rewards at the expense of longer term larger reward, erroneous beliefs that a win is due or the pressure to chase losses (see Petry, 2005 for a review). These behavioural shifts in decisions are seen as reflecting some degree of impaired self-control, and can be accounted for by; the failure to set or maintain adequate goals or standards, the failure to self-monitor behaviour relative to those goals/standards, and weakened motivations (Moore, Thomas, Kyrios & Bates, 2012).

An individual's inability to regulate emotions (Scanell et al., 2000; Williams et al., 2012), the presence of strongly held erroneous cognitions (see Hodgins & Holub, 2007; Petry, 2005), heightened states of arousal/excitement (see Abrams & Krushner, 2004; Delfabbro, 2014) and neurotransmitter dysregulation (Humphrey & Richards, 2014; Gouudriaan, van Holst, Veltman & den Brink, 2014) can be seen as factors that serve to further undermine one's capacity for self-regulation. Additionally, studies indicate that the use of emotion rather than problem-focused coping strategies, proneness to boredom (Blaszczynski, McConaghy & Frankova, 1990), and personality traits related to impulsivity (Nower & Blaszczynski, 2006; Steel & Blaszczynski, 2002) further compromise an individual's ability to self-control. The complex matrices of factors that combine to result in problem gambling behaviours are described in detail in Blaszczynski and Nower's (2002) and Sharpe's (2002) conceptual models.

The obverse of impaired control is self-control or self-regulation, described as an individual's ability to control their impulses or urges (Tochkov, 2010). In gambling, self-control is defined as an individual's '*consistently staying within preferred levels of involvement, i.e. time and money expenditure*' (Dickerson, 2003, p. 37). In recognition of the problem that individuals, in reality, have in self-regulating behaviour under conditions of heightened arousal or emotion (Sharpe, Tarrier, Schotte & Spence, 1995; Baudinet & Blaszczynski, 2012; Williams, Grisham, Erskine & Cassidy, 2012), it has been suggested that strategies that effectively allow players to set monetary and time limits that cannot be exceeded will act to facilitate control over play and importantly, reduce the likelihood of gambling to excess (Ladouceur, Blaszczynski & Lalande, 2008; Productivity Commission, 2010). Here, the intent is to impose external controls on a player which prevent that individual from gambling more than initially intended, irrespective of the presence or strength of any urge to prolong the session of play.

The fundamental principle inherent in this approach to loss limits is that a player ought to set a threshold limit on the monetary and time expenditure that the individual intends to spend in a session of play prior to the commencement of a session's play. This threshold can be set at a daily, weekly or other specified timeframe, and in some instances (particularly in the use of online account betting), complemented by the option of setting deposit limits (Broda, LaPlante, Nelson, LaBrie, Bosworth, & Shaffer, 2008). These expenditure thresholds should be decided upon when the individual is in the absence of any arousal/excitement that might

impair decision-making (that is, a state of 'cold emotions') and therefore able to make more rational and considered deliberations on how much can be spent given their budgetary constraints (Scanell, 1999). In other words, the individual is making a decision to pre-commit the maximum amount of losses that can be affordably sustained within, or the time prepared to allocate to, that session. Pre-commitment, accordingly, has been advanced as an important and attractive initiative that represents an external mechanism of control that can be imposed to limit player losses. The advantage of pre-commitment is that, once a limit is set, factors related to emotional states, incurred losses, personality traits (impulsivity and risk-taking), and shifting motivations are less likely to exert their influence on decisions made; that is, the outcome is that there will be a greater likelihood for an individual to adhere to initial intentions and decisions.

At face value, the concept of pre-commitment has intrinsic appeal as an effective strategy to control expenditure in respect of time and money (Productivity Commission, 1999; 2010). Support for the strategy is steeped in the findings of a number of studies that have explored typical methods which individuals meeting the criteria for a gambling disorder have applied in self-regulating their gambling behaviour. Moore, Thomas, Kyrios and Bates (2012) reviewed the natural recovery literature to elicit the range of useful self-management techniques used by individuals ceasing their gambling in the absence of professional interventions. This is relevant given the fact that between 40-82% of individuals meeting the criteria for a gambling disorder appear to recover without the need for professional interventions (Abbott, Williams & Volberg, 1999; Fröberg, Rosendahl, Abbott, Romild, Tengström, & Hallqvist, 2014; Slutske, 2006). The primary techniques that were identified included self-imposed limit setting (Blaszczynski & Nower, 2010; Nelson et al., 2008; Dzik, 2006) in addition to taking steps to avoid exposure to venues, ceasing 'cold turkey', revising and resetting lifestyle directions and goals (Hodgins et al., 1999), and cognitive reframing of gambling by emphasizing negative outcomes and benefits of cessation (Hodgins & el Guebaly, 2000), among others. Approaches reportedly used included taking set amounts of cash to venues leaving credit and debit cards at home, taking alternative routes home that avoid or by-pass venues, involvement in a substitute activity/hobby with greater personal salience, and coming to the realisation that gambling impinges negatively on their overall quality of life. Building on these studies, Moore and her colleagues (2012) constructed a 20-item self-regulation scale to a sample of 303 social, problem and ex-problem gambling participants responding to advertisements placed in university, community and counselling centre notice boards and websites. Consistent with the literature, these found a five-factor structure best described the key strategies; limit setting (time and money), cognitive approaches (awareness of negative outcomes and competing priorities), direct action (help-seeking, destroying credit cards, limiting ready access to cash), social experience (not gambling in isolation), and avoidance (not attending venues).

Currently, pre-commitment as a harm minimisation strategy has attracted the attention of a number of international jurisdictions, namely Australia, Denmark, New Zealand, Norway, Nova Scotia and Sweden (Williams, West & Simpson, 2012). These jurisdictions have instigated a number of trials evaluating voluntary or mandatory pre-commitment for electronic gaming machines. In the case of Norway, all players must register with a central monitoring server, and all machines have a mandatory pre-commitment threshold (Biggs, 2011). However, although conceptually sound with excellent face validity and holding potential promise (Griffiths, 2012; Parke, Rigbye & Parke, 2008; Productivity Commission, 2010; Williams, West & Simpson, 2012), there is presently no available strong or conclusive empirical evidence to

demonstrate the effectiveness of pre-commitment for the majority of players or problem gamblers (Ladouceur, Blaszczynski & Lalande, 2012; Parke, Rigbye, & Parke, 2008). This is not to suggest that pre-commitment will not result in some benefits for a proportion of players. Setting aside methodological difficulties inherent in many studies (Ladouceur, Blaszczynski & Lalande, 2012; Parke, Rigbye, & Parke, 2008), self-reports of gamblers indicate the majority regard pre-commitment positively, and for those adopting its use, a reduction in time and money expenditure, and chasing behaviour (Omnifacts Bristol Research, 2005, 2007; Schottler Consulting, 2010). The difficulty at hand is determining the proportion and characteristics of those benefitting from pre-commitment, and strategies to maximize the number of players adopting its use and minimise possible unintended negative consequences.

It is a matter of concern that there is some apparent risk that for a small proportion of players, pre-commitment might result in setting high limits (Responsible Gambling Council, 2009) that, as argued by Ladouceur, Blaszczynski, and Lalande (2012), could potentially lead to an exacerbation of expenditure. For example, individuals may set higher limits than typical to avoid a repetition of a situation where they have met with friends unexpectedly at a venue but have been prevented from further social gambling since they have exceeded their threshold. Subsequently, there may be a tendency to gradually increase expenditure to the higher limit. It is pertinent to note Williams, West and Simpson's (2012) comment that "…*the 'devil is in the details' and the actual effectiveness of a technique is usually very much dependent on how it is applied* (p64)". Therefore, close consideration and evaluation of the details of the architecture of any system and the manner in which it is implemented is warranted prior to its widespread introduction. Unless there is experimental or even observational research carried out into pre-commitment in the exact regulatory and cultural context in which it is intended be introduced, it might not possible to determine its impact in a cost-effective manner. Findings from jurisdictions with socio-political and cultural differences may not validly transfer to others. In addition, the principle of 'proportionality' ought also to be taken into consideration, that is, a great standard of evidence is required for interventions that are costly, affect the majority of players, and have ramifications for revenue and taxation, before they should be introduced in a jurisdiction.

5.1.1 Most Gamblers Pre-commit Expenditure Levels

The challenge in encouraging individuals to set expenditure limits is not so much the need to have them make a decision, but rather, in adhering to the commitment made. It ought to come as no surprise that most gamblers do indeed predetermine the amount of money or time they intend to spend in a session. As Husain, Wardle, Kenny, Balarajan, and Collins (2013) found in their qualitative study, individuals tend to set predetermined budgets depending on decisions related to how much they were willing to lose, and then subsequently select stake values that maximize the chances that they are likely to play for a chosen length of time. This amount may be highly specified or relatively vague and variable depending on available budgets and ease of accessibility to funds. For example, in a media recruited sample of 38 problem and 43 non-problem regular Video Lottery Terminal (VLT) gamblers, Lalande and Ladouceur (2011) found that 80% of both types of gamblers reported setting an expenditure limit prior to commencement of play. Similarly, 90% of a sample of slot machine players reported setting financial limits prior to entering a gaming facility (Wohl, Christie, Matheson, & Anisman, 2010). Consistent with the findings of other trials and anecdotal reports of industry operators, few gamblers are interested in setting time limits. In their review of the literature, Lalande and Ladouceur (2011) and Williams, West and Simpson (2012) found that

monetary limits were reportedly utilised more by players than time limits, with some studies finding no players opting to set a time limit.

Pre-committing an amount is one matter, but setting an amount that falls within an individual's affordable discretionary disposable income is another. Although, almost by definition, responsible gamblers risk only that amount of money that they can afford to lose, problem gamblers consistently gamble beyond their affordable budget, often risking greater amounts as they chase losses (Lesieur, 1984; McDonnell-Phillips, 2006; Lalande & Ladouceur, 2011). As found by Lalande and Ladouceur (2011), problem compared to non-problem gamblers reportedly pre-committed to subjectively set higher expenditure thresholds prior to play, with 42% and 8% exceeding those personally set limits respectively. Chasing losses, erroneous cognitions related to the gambler's fallacy and/or illusion of control, and emotional distress represent factors that may account for these findings. This is an important consideration to bear in mind given that problem gamblers are more than likely to fail to set and adhere to reasonable limits unless external agents, as for example in the case of Norway, impose such limits on them. Thus, from one perspective, a pre-commitment system designed to limit losses for problem gamblers but requiring those with impaired control to set their own expenditure levels appears to be one that is fundamentally flawed. Whether or not a pre-commitment system prevents or delays the development of a gambling disorder, and the extent to which it is successful in achieving a decrease in its incidence, is yet to be determined by prospective studies. But, by definition, individuals with a gambling disorder exhibit impaired control over their gambling behaviour as reflected in repeated unsuccessful efforts to reduce their gambling and in gambling more than can be afforded in an effort to chase losses. Therefore, the challenge is to encourage individuals to (a) self-determine appropriate budgets relative to their income, and (b) not to increase pre-set limits over time. Recreational gamblers could well benefit through pre-commitment options acting to facilitate good budgetary management practices.

The need for a player to set appropriate limits is important if unintended consequences are to be avoided. Evidence suggests that a proportion of players will set higher limits than typical of their gambling patterns (Ladouceur, Blaszczynski & Lalande, 2011; Williams, West & Simpson, 2012). As a consequence, players increase their gambling to reach the higher limit on the basis that such funds are now available. This is analogous to individuals increasing credit card limits and then spending to those limits. This outcome ought not to diminish the usefulness of pre-commitment for others. The opportunity to set limits may represent a useful budget management tool that reduces losses and consequent harms, and/or reduces the likelihood of gambling disorders from developing.

Without diminishing the value of pre-commitment, there is a need to move away from opinion and reliance on self-report data that may simply serve to overestimate its impact and lead to inflated expectations. More objective measures using prospective research designs are required before a conclusive statement on the overall effectiveness of pre-commitment can be offered.

5.1.2 Conducive Gambling Environments to Set Limits

As the Productivity Commission (2010) notes, the labels used to describe mandatory, and partial or full voluntary pre-commitment often lead to confusion. A fully 'mandatory' system is one that requires all players to be registered to play. The operator sets default deposit and

loss limits, and once the pre-set limit is reached, further play is not allowed. Norway is a prime example of such a system.

A 'partial voluntary' system refers to one where an operator offers a pre-commitment facility but the decision to use this facility is left to the discretion of the player. Players can elect to use the pre-commitment facility but once the pre-set limit is reached, are allowed to continue play. In contrast, a 'full voluntary' system requires individuals to register to play but retain the option of using the pre-commitment facility or not. Once the facility is used to set a limit and that limit reached, no further play is permitted. The term 'voluntary' is often applied to the 'partial voluntary', and 'mandatory' to the 'full voluntary' system.

5.1.2.1 Electronic Gaming Machines

Individuals do not readily voluntarily register for and/or use pre-commitment systems that are offered without having some awareness and understanding of their purpose and intent (Blaszczynski, Ladouceur & Lalande, 2012; Williams, West & Simpson, 2012). The take-up rate of having to formally set a limit, given that most individuals have already done so personally, has been shown to be small, particularly for using options to set time limits. Those who do voluntarily elect to use such systems report that the use of pre-commitment facilities does aid in improving the management of their gambling budget. Whether or not these individuals already do have the capacity to control their gambling independently of these facilities is yet to be established, but nevertheless their use may abort or reduce the likelihood of future excessive gambling behaviours.

Accordingly, there is merit in offering players the option to use pre-commitment. However, given the difficulties that individuals with gambling disorders have in maintaining adherence to decisions made, it is important to direct attention to certain features of the gambling environment. The extent to which these features can be modified, and in what manner, is of course subject to socio-cultural and political demands. Some modifications can be imposed in more socialist-oriented but not in more libertarian societies. Thus, in Norway, it was possible to legislate for the removal of all gaming machines and the reintroduction of mandatory low-intensity pre-commitment machines and registration allowing for player tracking, given the population's propensity to accept mandatory policies as a means of balancing societal and personal liberties (Sjolstad, 2008 cited in Responsible Gambling Council, 2009). Any attempt to conduct a similar enterprise in the UK, USA or Australia would most likely be met with strong resistance both by private industry operators and sections of the community advocating for the protection of civil liberties. Privacy issues and concern over external agencies tracking gambling-related financial transactions (Nisbet, 2005; McDonnell-Phillips, 2006) are more likely to be raised in these countries. If pre-commitment is to be implemented in these more socially liberal socio-cultural contexts, it would be counterproductive and futile to do so in a piecemeal fashion.

5.1.2.2 Mandatory Pre-commitment

To be optimally successful, the structure of any ideal electronic gaming machine based pre-commitment system needs to apply to all players and to eliminate the option for a player to (a) exchange cards with other players, or be provided with temporary cards by venue operators once pre-set thresholds are reached, and (b) switch play to a cash-based machine. This effectively means that all machines within a venue and/or its close proximity are required to offer pre-commitment facilities prior to the commencement of play, and that the 'smart card' or loyalty card cannot be exchanged among players or renewed (topped-up) on the

premises. Restrictions on the timeframe for increasing limits and opting out of low default limits can be assigned within such a system to minimise impulsive decision-making. A mandatory system that includes all players would protect recreational gamblers from experiencing occasional losses that could potentially precipitate chasing behaviour and a decline to a gambling disorder, and assist current problem gamblers in managing their expenditure. The Norway experience is an exemplar of this approach, although the potential for individuals to transition to other forms of gambling undermines the system's effectiveness in achieving its objectives. However, the extent to which gamblers readily substitute one form of gambling for another is yet to be established. It may well be that electronic gaming machine players may not transition to other forms, resulting in a reduction in problem gambling behaviours. Therefore, it is relevant to monitor the longer-term effects in Norway, given some suggestions of possible increased uptake in internet gambling (Biggs, 2011).

The potential for transition means that all forms of gambling should be subject to the same pre-commitment requirements. In reality this is difficult if not impossible to achieve in some forms of gambling that rely on 'over-the-counter' cash transactions, e.g., casinos, horse wagering, and lotteries where loyalty cards or registration is not required. Setting this issue aside, it should nevertheless be noted that Norway's socially-oriented political context allows a greater community acceptance of interventions targeting the community as a whole. In a more liberal, individualistic, civil libertarian social context, a similar intervention may not be tolerated by the community at large, and therefore is not a realistically viable option to consider.

5.1.2.3 Voluntary Pre-commitment

In most other jurisdictions, voluntary pre-commitment facilities are offered as options that players can use at their discretion. The choice of whether or not to take advantage of such options is open to recreational gamblers experiencing difficulties in restricting their expenditure to predetermined budgets, and individuals with a gambling disorder wishing to maintain controlled gambling. Individuals competent enough to be able to control their gambling are not motivated to take up pre-commitment since the facility is not seen to be relevant to their needs, and the process to initiate the option is an unnecessary burden imposed on their recreational play. Recreational gamblers with occasional episodes of gambling more than intended may see the option as useful in assisting to minimise their likelihood of exceeding their budget and therefore opt to use the facility subject to the ease with which it can be initiated.

One primary advantage of a voluntary pre-commitment system is that it represents an excellent adjunct for a number of gamblers in treatment programmes. Therapists can incorporate the use of pre-commitment facilities in treatment programmes designed to assist individuals with a gambling disorder maintain controlled gambling. The facility would be used to set limits in collaboration with therapists and, if ticket-out printed player information displays were available, to obtain objective evidence of compliance with therapeutic instructions. Although, ideally, data across all sessions and forms of gambling should be recorded, a voluntary system can still benefit individuals motivated to overcome their gambling disorder. Clients ambivalent or not motivated in therapy can, of course, subvert the process by gambling on cash-based machines. Nevertheless, pre-commitment should be promoted as a useful tool in the context of treatment programmes.

Voluntary pre-commitment has the advantage of being made available to those wishing to use the facility while not imposing limits or additional steps to initiate play imposed on recreational gamblers. Mandatory pre-commitment has an impact on all gamblers and while this may be considered a preferred public health option, this path may not be acceptable in libertarian societies where the industry is privatised. In addition, the potential for gamblers to migrate to other forms of gambling, such as the internet or horse/sports wagering, must be considered as a real possibility unless these forms are also mandated to be pre-commitment compliant. Although the data is not conclusive, there is some evidence from Norway that this may be an unintended outcome of their mandatory pre-commitment system, although the apparent increase in online gambling found may have occurred due to its intrinsic popularity regardless of any changes occurring concurrently in the machine environment (Biggs, 2011). These potential effects do not negate the potential benefits of pre-commitment; rather, they simply point to the need to evaluate the overall effectiveness of pre-commitment achieving its objectives, and introduce strategies that maximize its uptake and utility.

5.1.3 Online and Offline Gambling Environments

Pre-commitment facilities can be incorporated in electronic gaming machines within land-based venues as a standard feature. The cost to the industry of having to modify or manufacture pre-commitment compliant machines may be substantial and therefore represents a barrier to its feasible introduction in venues (Parke, Rigbye & Parke, 2008). Costs may also be associated with the purchase of smart cards that incorporate bio-identification features used to prevent card swapping behaviour that occurs among approximately a third of players (Omnifacts Bristol, 2005; 2007). However, the availability of cash-based electronic gaming machines or other gambling opportunities (wagering or adjacent machines where new limits can be set) in the same venue, for example off-track betting offices, dilutes the potential effectiveness of pre-commitment if players can easily switch to the latter once their pre-set limits are reached.

Studies using university students in simulated laboratory gambling situations have evaluated the effectiveness of limit setting in modifying behaviours (Steenbergh, Whelan, Meyers, May, & Floyd, 2004; Stewart & Wohl, 2013). Although promising results have been reported, the design of most studies makes it difficult to tease out the effects of student-experimenter demand characteristics and/or concurrent interventions administered on outcomes. For example, in Steenbergh et al.'s (2004) study, participants in the warning plus brief intervention condition were informed of the benefits and then encouraged to set limits with 100% complying for money and 51% for time limits, compared to 24% (money) and 9% (time), and 35% (money) and 11% (time) for control and warning video only conditions, respectively. Direct encouragements were not given for the latter two conditions, suggesting the possibility that demand characteristics of the study's design resulted in 100% of participants setting money limits.

Wohl et al. (2010) exposed non-problem slot machine players to animated educational videos explaining probabilities and randomness. Included were seven 'concrete actions' for 'problem-free gambling' that incorporated suggestions for setting financial limits in addition to limiting access to additional funds, for example, leaving credit cards at home. Fewer participants in the animation compared to non-animation group exceeded set limits but at 30-day follow-up, the difference was not significant. Given the multiple 'problem-free gambling'

strategies offered, it becomes difficult to attribute the findings specifically to players pre-setting and adhering to limits or to their taking other action to limit access to cash.

In a further study, Wohl, Gainsbury, Stewart, and Sztainert (2013) exposed university students to either an educational and non-educational video; the educational video was designed to examine common misconceptions about the operation of gaming machines. Participants received a pop-up message that required them to set a limit on credits they wished to spend. More participants in the educational video compared to control condition adhered to pre-set limits in a virtual-gambling laboratory environment. Given the educational video group also reported less gambling-related cognitions, it remains unclear whether adherence was the result of setting limits or changes in erroneous cognitions.

More recently, Walker, Litvin, Sobel, and St-Pierre (2014) explored an innovative concept of setting win limits as a responsible gambling tool, that is, pre-committing to a pre-set winning amount and ceasing if that limit was achieved. The rationale is that players persist in gambling such that even if they do win, they will continue playing until their loss limit is reached. If players do set win limits and cease playing once that limit is reached, they will consequently remain winners. Evidence for improved player performance was found in a simulated slot machine software program. This program ran 15 rounds of 60 simulated players playing 5,000 slot machine spins with three simulated conditions: no win/loss limit; one hour time limit; $100 loss limit; $100 loss/$100 win limit, $100 loss limit/$100 win 'down'; $100 loss/$200 win limit; and $100 win limit. As the authors acknowledge, this approach may not gain acceptance as a responsible gambling tool. Players may set unrealistically high win limits and rarely reach these, or continue playing beyond their winning threshold if they believed they were on a winning 'streak'; subsequent losses resulting in a win below the threshold might lead the player to persist in an attempt to reach the win limit, ultimately losing all. In one respect the win-limit could also function as a time limit. Reaching a win limit early in a session would reduce that session's duration. However, this may cause some conflicts in decisions for those players who intended to gamble recreationally for a longer time period.

Although in some aspects delivering promising outcomes, most experimental studies using students and volunteers in simulated gambling tasks as cited above are fraught with methodological problems that preclude any definitive statement on the effectiveness of money and pre-commitment options in transferring to real gambling in in-vivo environments.

5.1.3.1 Internet

Online gambling, on the other hand, is well suited to the application of a mandatory pre-commitment system where all players are required to set relevant limits. All players must open an account and all gambling behaviour, done with that one operator, is monitored. At the account opening stage players can be prompted to set deposit, daily bet limits, and maximum loss thresholds. Personalised warning messages can be directed electronically to players approaching or reaching pre-set limits, and accounts can be suspended for high-risk players (individuals repeatedly reaching or increasing threshold limits). A number of agencies have developed behavioural tracking programs (e.g., Mentor, Bet Buddy, Featurespace, Playscan) that provide feedback to players regarding their gambling behaviour patterns relative to normative data.

Some preliminary evidence indicates benefits for those electing to use these programs (Auer & Griffiths, 2013). However, the possibility of transferring to other online sites or land-based venues once thresholds have been reached dilutes the overall effectiveness of such software programs. For example, Parke et al., (2012) found that the vast majority of internet gamblers had played with more than one gambling website in the three months preceding the survey, with 25% and 12% of internet casino and poker players respectively reporting that they had played with at least six different operators in the same time frame. According to the findings of the Internet Poker Committee (2008; cited in Responsible Gambling Council, 2009), just over a third of 1,000 Internet players on Svenka Spel's sites shifted to another online site when set limits were reached.

Again, the capacity for players to either ignore or set excessively high limits negates the purpose of this pre-commitment option. Broda et al. (2008) found only 0.3% of account holders exceeded deposit limits. Operator-set minimal deposit limits that are higher than the average amount that players do deposit may account for this low percentage figure. Importantly, players informed that their limits were exceeded changed their betting patterns such that there was a reduction in the number of bets placed but a compensatory increase in single large bets. Methodological difficulties in controlling for leakage to other online accounts or gambling forms preclude a conclusive statement being made regarding the success of online pre-commitment options.

5.1.4 Stimulating the Take-up of Pre-commitment

Reviews of the outcome of studies conducted in Nova Scotia, and the Australian states of Queensland and South Australia, (see Productivity Commission, 2010; Responsible Gambling Council, 2009; Williams, West & Simpson, 2012) have clearly indicated that players are not highly motivated to take up pre-commitment facilities, particularly in regards to setting time limits. Despite gamblers' reporting that they agree that pre-commitment represents a useful harm minimisation intervention that would facilitate player control, behaviourally only a fraction of individuals (1% of players up to 15% those registering for a card (Ladouceur, Blaszczynski & Lalande, 2012; Williams, West & Simpson, 2012)) actually decide to use pre-commitment options when gambling. Accordingly, efforts should be made to encourage players not only to view pre-commitment as a positive initiative but also to use pre-commitment as a budget management tool as part of their normal pattern of play.

The low take-up and usage rate probably reflects a poor understanding of the concept and/or lack of motivation to use the system. If pre-commitment is to be successful, it is argued that the facility should be normalised and players fully educated. An appropriate intensive education campaign should be introduced marketing pre-commitment as a normalised budget management system. The marketing should be designed to inform players that the primary purpose of pre-commitment is to offer a general tool to maintain recreational gambling at affordable levels and to minimise impulsive decision-making under conditions of emotional arousal/distress that drives individuals to gamble more than intended and/or affordable. A system is only as good as its users' understanding of its concept and purpose, ease of use, and perceived personal relevance (Nisbet, 2006).

5.1.5 Key Points

- Pre-commitment is a useful tool for a proportion of gamblers to assist in limiting time and money spent gambling. On the basis of current evidence, there is tentative evidence that gamblers using pre-commitment self-report a reduction in expenditure and chasing losses.
- A proportion of gamblers experience intense difficulties in their attempts to limit their gambling and consequent losses. Offering pre-commitment where the problem gambler is responsible for making the choice in setting limits may not be realistic; its use may need to be mandated to maximize the positive outcomes on this subpopulation.
- The current level to which gamblers voluntarily adopt pre-commitment measures is relatively low. Educating gamblers on the nature and aims of pre-commitment should be promoted widely to the general population of gamblers to increase its use and compliance. Pre-commitment should be marketed as a tool to manage gambling budgets for all gamblers rather than for individuals with a gambling disorder. Normalising the strategy as a budget tool may reduce stigma and promote its voluntary uptake.
- The decision as to whether a full mandatory, partial or full voluntary system for electronic gaming machines is to be adopted is heavily dependent upon the socio-cultural context in which it is to be introduced.
- Internet gambling requires a gambler to register personal details to open an account with all activity being recorded and potentially tracked. This medium of gambling therefore is well suited to the introduction of mandatory pre-commitment. For internet-based gambling, a mandatory requirement to set deposit and/or upper loss limits should be implemented at the time an account is opened.
- Voluntary pre-commitment is arguably the most likely approach to facilitating player control that would gain both community and industry acceptance in a libertarian socio-political culture. Voluntary pre-commitment has the benefits of offering a choice to those who see personal benefits in its use, and avoiding the disadvantage of imposing restrictions on the majority of players able to control their expenditure.
- Pre-commitment represents an excellent adjunct for a minority of gamblers attending treatment programmes where the aim is controlled gambling rather than abstinence. Therapists can use the pre-commitment facility to assist individuals to maintain controlled gambling by tracking and monitoring their expenditure. The use of player information provides objective information of gambling behaviour, thereby overcoming limitations of self-report data.
- Any pre-commitment strategy ought to consider setting a reasonable minimum daily amount (losses) as the default level for all individuals. The actual daily amount can be estimated by taking into account the median losses, or the average amount lost by recreational gamblers. This somewhat arbitrary figure would be adjusted over time subject to it representing an acceptable daily limit for the majority of problem gamblers.
- All machines should be mandated to have a non-card-based pre-commitment facility available for players. Players motivated to use the pre-commitment facility can freely elect to use the responsible gambling options that best suit their requirements.

- Ideally, no cash-based or adjacent machines where new limits can be set should be available to entice players reaching their limits to continue play.
- Ideally, machines should be linked to a central server to allow monitoring of play across all venues and all forms of gambling within a jurisdiction. Player cards should not be transferrable to other players; username/logins or bio-identification would be required with venue staff unable to provide supplementary/temporary cards to players in the venue. However, the complexity of land-based gambling environments coupled with the availability of internet sites (regulated and unregulated), and the cost of its implementation does not make central server monitoring practical in reality in the UK, Australia, or North America. At this stage, pending empirical data, a voluntary pre-commitment system offers a facility targeting those motivated to use it as a budgetary management tool, and/or to assist in controlling expenditure while minimally interfering with the majority of players. It is also minimises disruption to recreational players associated with misplaced cards, and is compatible with the concept of informed choice (Blaszczynski, Ladouceur & Shaffer, 2004).

5.2 COOLING OFF

The premise underlying cooling-off periods is that individuals, because of deficits in emotional regulation, the effects of operant conditioning, or financial pressure to chase losses may impulsively decide to continue play (Delfabbro, 2014; Lesieur, 1984; Williams, Grisham, Erskine & Cassidy, 2012), or to increase pre-set limits to extend either current or future sessions of play. Cooling-off periods can be accomplished by breaking the nexus between decisions made and actual behaviours, that is, to either (a) impose a delay between the decision to gamble and commencement of a session (for example, 24-hour notification of intent to gamble), or (b) impose a break in play during a session. Cooling-off periods are important in offering gamblers time to reconsider and re-evaluate their decisions to gamble, particularly decisions made impulsively and without forethought or consideration of their consequences. Cooling-off periods are common in commercial transactions where contracts allow individuals a timeframe in which they can rescind purchases without penalty.

Online providers and venues providing pre-commitment options on electronic gaming machines require a period of delay before an individual can access gambling funds following a request to increase deposit or bet limits. Typically, reductions in deposit or bet limits take effect immediately, while requests for increases do not take effect for variable periods; 24, 48 or 72 hours, or up to seven days. It remains unclear as to what proportion of players set excessively high limits in the first instance to avoid future needs to request increases, and operators are reliant on the individual's assessment as to whether or not that individual can afford the new limit. There is no empirical evidence to indicate that cooling-off periods assist problem gamblers to limit losses to affordable levels, how many gamblers rescind their request for an increase after the imposed delay, or decide to return to pre-request levels of expenditure. This does not diminish the usefulness of cooling-off periods but rather argues for the need for more data on the degree of its effectiveness and guidelines for enhancing its impact.

Delays in play can be achieved by limiting the operating hours of venues. This approach is predicated on the assumption that individuals will be better placed to limit losses if there is a reduction in the time available to gamble. A number of jurisdictions have required venues to operate restricted hours of trade, for example, Nova Scotia, Australia, Switzerland. These

closures may involve shutting down gambling facilities in venues for four to six hours daily, or after midnight/early morning until midday/early afternoon (for examples see Productivity Commission, 1999; 2010; Williams, West & Simpson, 2012).

Gauging changes in revenue as a proxy index of a successful harm minimisation initiative indicates that closing times effectively reduce venue revenue by 3-10% and 18% in self-reported expenditure. However, as noted by McMillen and Pitt (2005), closing periods do not have a major impact on reducing problem gambling. This is perhaps due to the fact that not all problem gamblers gamble during the shutdown, that typically occurs in the early morning non-peak periods, and that not all venues in close proximity have standard closing times. The latter allows problem gamblers to simply move from venue to venue; for example Tuffin and Parr (2008) found 63% of problem gamblers continued gambling during closure of a venue. Early morning closures also impact negatively on recreational gambling shift workers.

To date, there is no substantive evidence to indicate that trading hour restrictions operate as an effective cooling-off option, or have a positive impact as a harm minimisation initiative for problem gambling.

Breaks in play represent another means by which a cooling-off period can facilitate player control. Although there is no accepted operational definition of, or timeframe that constitutes, a break in play, the inherent concept is predicated on the notion that interrupting play will give an individual an opportunity to evaluate and reconsider their own gambling behaviours. Conceptually, breaks in play are based on the notion that gamblers enter into a state of dissociation during play (Jacobs, 1986) and lose track of time and money spent. Thus, theoretically, forcing a break in play by causing a machine to cease functioning or have a mandatory cash out in ticket-in-ticket-out form after a period of continuous use, or interrupting dissociation through dynamic messages displayed on a screen, provides an opportunity for re-evaluation of one's behaviour.

A number of studies have evaluated the effects of dynamic and personalised warning messages on gaming machines (see previous section on facilitating awareness) but although there are some promising short term impacts and self-reported benefits, no conclusive statement can be made regarding its overall effectiveness in changing actual behaviours. Nevertheless, personalised dynamic messages directed towards individuals engaged in prolonged sessions of play have the advantage of not interfering with recreational gamblers but targeting those for whom the message has relevance (Monaghan & Blaszczynski, 2010). More importantly, dynamic messages are designed to gain the attention of the player and to motivate him/her to re-evaluate their behaviour. Other types of breaks in play simply assume that the individual will take the opportunity and/or be motivated to do so.

Although it is reasonable to argue that breaks in play represent a means by which play can be interrupted and hence be assumed to contribute to the process of individuals re-evaluating their behaviour resulting in reduced gambling, the experience in other domains may bring this into question. In a recent news article, the popularity and so-called 'addictiveness' of a new App-based game, 'Candy Crush', was attributed in part to the inclusion of imposed breaks in play (Dockterman, 2013). Once five 'lives' are lost in the game, players are required to wait 30 minutes before resumption of play is allowed. Players can purchase additional lives to overcome this 'break in play'. As the developer was quoted as saying, "…it's much better from an entertainment point of view to create more balanced experience where you have natural

breaks" (Dockterman, 2013). The extent to which a break in play can create a sense of frustration and stimulate demand, that is, monetising a game, within a 'freemium' business model may have some relevance for gambling. If breaks in play serve to increase the motivation to continue play in video games, does the same, paradoxically, apply to gambling? Alternatively, it could be that Candy Crush players make in-App purchases to play without interruption, a feature common to many App-based video arcade-type games. Although the notion that breaks stimulate demand is currently highly speculative, the assumption underpinning breaks in play may need to be tested more carefully. If the response to Candy Crush breaks in play can indeed be applied to gambling, the implication is that strategies designed to introduce breaks in play may be counterproductive. It is not that demand increases, but that the function of a break in play is to withdraw supply such that the urge to gamble remains unsatisfied.

At this point in time, more clarity is needed to determine the effects of imposed breaks in play in stimulating a desire for a return to play, and in specifying the frequency and optimal length of a break that would extinguish the urge to continue play. Imposing frequent brief breaks in play of several minutes' duration within a session of continuous play may have a different effect (potentially irritating) than that produced by infrequent lengthy breaks (potentially disrupting dissociative states and having the gambler reappraise their behaviour). Clearly, in situations where an individual has been gambling continuously over a period of ten or more hours, the session should be interrupted, as such behaviour is indicative of a gambling disorder (Schüll, 2013). Staff intervention to break play in such circumstance is warranted. However, the nature of this type of break in play (staff intervening after prolonged play) differs from the imposition of breaks during the course of sessions of much shorter duration.

As noted by the Responsible Gambling Council (2009), recreational and problem gamblers respectively report the availability of objective historical player activity information and session expenditure as useful in assisting them to stay on budget. Whether this translates to lowering their risk for gambling to excess is yet to be confirmed, given some preliminary findings that reduction on session expenditure is offset by increased frequency of play (Schellink & Schrans, 2007), and the possibility that realising the extent of losses may precipitate some individuals to increase gambling in a bid to recoup those losses. Nevertheless, providing players with accurate and objective data on their gambling expenditure appears to be a reasonable strategy to assist gamblers in maintaining and managing their gambling budget.

5.2.1 Key Points

- Cooling-off periods for increasing pre-set deposit, bet, and loss limits under conditions of pre-commitment is recommended as a reasonable strategy to facilitate player control. However, more data is needed on the optimal cooling-off period and the characteristics of players who subsequently decide to moderate their behaviour. This information can be used to enhance the effectiveness of cooling-off periods for gamblers requesting increases in expenditure limits.
- Trading hour restrictions may have limited scope in regions where alternative venues operate during those times or where other gambling forms are available as a substitute.

- Breaks in play can be considered as a useful tool to interrupt dissociative states and to encourage players to reappraise their behaviour. However, it is also advisable to clarify the optimal frequency and duration that defines an effective break in play, and to exclude the presence of possible counterproductive effects.
- Providing player activity statements and within session expenditure appears a reasonable strategy to assist players to maintain a budget related to their gambling.

5.3 Access to Additional Funds

Problem gamblers often seek to obtain additional funds to continue gambling once their initial budget allocation for a session has been exhausted, leading them to spend more than intended (Ladouceur, Blaszczynski & Moodie, 2008). To facilitate player control, efforts have been directed to restricting options to withdraw more funds. In many jurisdictions, venue operators are not permitted to offer lines of credit or to advance cash against cheques. Exceptions occur in the USA and some Canadian provinces. In Australia, winnings in excess of $1000 are to be paid by cheque, a requirement that gamblers report can be effective in limiting the likelihood of excessive spending (Carniche, 2005; McMillen & Pitt, 2005). There is a consensus that credit facilities ought not to be provided in gaming venues, with evidence indicating that compared to recreational gamblers, problem gamblers have a greater tendency to borrow money and that requesting a credit advance is an indicator of impaired control. Approximately 25-70% of problem gamblers report using credit and borrowings to supplement their gambling (McMillen, Tremayne & Masterman-Smith, 2001; South Australian Department for Families and Communities, 2007). Accordingly, there is little support for the option of credit betting with the exception of prior arrangements made under certain circumstances that establish the financial viability of the individual to meet those obligations.

Automatic teller machines (ATMs) located in venues provide ample opportunity for individuals to easily withdraw additional funds. Self-report data from gamblers suggests that 24-hour easy access to ATMs in venues represents a trigger for impulsive decision-making (White et al., 2006). Problem compared to recreational gamblers are more likely to withdraw money from ATMs (59-87% versus 4-20%, respectively), withdraw larger cash amounts (30% of problem gamblers withdrawing in excess of $100), and to direct their withdrawal to fund continued gambling. In addition, the majority of problem gamblers are more likely to make multiple withdrawals (76-92% of problem and 54% of moderate risk compared to 18-25% of recreational gamblers) (McMillen, Marshall & Murphy, 2004; Productivity Commission, 1999).

Either limiting daily withdrawals from ATMs or EFTPOS[9] transactions to AUS$200, or removing ATMs from gaming venues can be effective methods of restricting access to cash. In 2009, the Victorian Gambling Regulation Amendment (Licensing Act) effectively legislated for the removal of ATMs from all licensed gaming venues, with the exception of casinos, commencing July 2012, with its impact reviewed a year later (Thomas, Pfeifer, Moore, Meyer, Yap & Armstrong, 2013). In the short term, this initiative appeared to be effective in reducing time and money expenditure among moderate and problem gamblers, such that these individuals

[9] *EFTPOS: Electronic funds transfer at point of sale. A system of electronic payments using debit or credit cards for purchases at terminals located at points of sale that also allows for concurrent cash withdrawals to be made.*

reported a greater sense of control and fewer occasions of spending more than intended; a reduction from 44% to 26% pre-to post- removal of ATMs (Thomas, et al., 2013).

Balanced against these apparent benefits, venues experienced an average reduction in revenue of approximately 7% across both gambling and non-gambling expenditures, and a decrease in patronage at both clubs and hotels. Self-reported data suggested that some patrons migrated to other venues in close proximity to ATMs or participated in other forms of gambling (McMillen & Pitt, 2005). Thus, if a policy of ATM removal is to be instigated, it should be extended to apply to all venues within close proximity, although this does not address the prospect of individuals accessing ATMs in public locations between venues. In addition, it should apply to other venue-based options of accessing cash, for example, facilities that allow 'over-the-counter' debit card withdrawals to load machines. Similarly to the restrictions imposed on credit betting, debit card loading of machines at the venue should not be permitted, or at the very least, clear criteria and training for staff to identify and respond to players using debit cards excessively need to be developed. Audits to ensure compliance with regulatory requirements should be carried out by independent agencies.

It remains to be seen if individuals will, in the longer term, modify their behaviours to compensate for the absence of ATMs in venues. Nevertheless, in the absence of ATMs individuals will be required to make considered pre-planned decisions as to how much they intend to spend gambling, that is, decisions equivalent to the concept of pre-commitment. Individuals seeking to obtain additional funds would be required to leave the venue to access an ATM off premises and this may represent a break in play (Productivity Commission, 2010); however, empirical evidence is required to confirm whether such a break in play will result in an individual re-evaluating their gambling and consequently reducing their expenditure. Although increasing the opportunity for staff interactions with players, the use of debit cards to load machines in a manner described by the Association of British Bookmakers (2013) in their code of responsible gambling and player protection, will serve to undermine the intent of any strategy designed to limit access to cash, and therefore should not be supported. The use of debit cards may increase the propensity for distancing the relationship between money and the act of gambling, and enhance the prospect of an individual's failing to realise exactly how much they have spent gambling over multiple uses of the debit card within a session. Setting aside some research suggesting that there was no difference between non-problem and problem gamblers in respect to spending more money if they used tokens or chips compared to playing with cash (Blaszczynski & Nower, 2010), the question remains whether the opportunity to use debit cards and hence easy access to additional cash is contrary to the notion of fostering a responsible gambling environment.

5.3.1 Key Points

- Ready and easy access to cash is known to trigger impulsive decisions to withdraw additional funds.
- Limiting ATM and EFTPOS withdrawals to a level that does not inconvenience recreational gamblers can facilitate player control and limit losses.
- Removal of ATMs from venues will restrict access to cash but may be compensated for by players bringing more cash to venues, moving to venues in closer proximity to ATMs, or shift to other forms of gambling.

- Use of debit cards to load machines is incompatible with responsible gambling strategies designed to limit impulsive decisions to access cash.
- A balance needs to be achieved between facilitating player control and inconveniencing recreational gamblers by removing ATMs from venues.
- Placing appropriate daily withdrawal limits on ATMs in venues, it can be argued, is a reasonable compromise.
- Whichever approach is adopted, restrictions must be placed on alternative methods (e.g., EFTPOS) to avoid individuals circumventing the barriers imposed on withdrawals.

6 RESTRICTING ACCESS

6.1 AGE RESTRICTIONS

6.1.1 Age and Gambling-Related Harm

More young people[10] participate in gambling than they do in any other addictive behaviour (Gupta & Derevensky, 1998). Prevalence studies have shown that, worldwide, between 50–80% of young people gamble each year (National Research Council, 1999; Derevensky et al., 2004; Cronce, Corbin, Steinberg & Potenza, 2007; Delfabbro et al., 2009; Derevensky et al., 2010; Hans et al., 2014). In Great Britain, 21% of adolescents aged between 11 and 15 report that they gamble each week, and 2% are estimated to have a gambling problem (Ipsos MORI, 2009). Young people are likely to start participating in gambling behaviours earlier than other risky behaviours such as cigarette smoking and substance abuse (Stinchfield, 2004). This could be due to the fact that some gambling activities are without age restriction, such as category D machines in the UK, whereas alcohol and tobacco are illegal for those aged under 18.

Younger gamblers have been shown to be more vulnerable to developing problems related to gambling (Lloyd, Doll, Hawton, Dutton, Geddes, Goodwin et al., 2010; Wilber & Potenza, 2006). Adolescent problem gamblers have been shown to have poorer coping skills and exhibit more erroneous beliefs regarding luck and perceived skill than older gamblers (Gupta, Derevensky & Marget, 2004; Gupta & Derevensky, 2008).

There are reports that adolescents may mature out of risk taking behaviours (Chevalier & Griffiths, 2004; Griffiths, 2001). Prevalence data at least to some extent may support the maturation hypothesis, with the rate of adult problem gambling around half to a quarter of that of adolescent problem gambling: 2% of adolescents are problem gamblers, (Ipsos MORI, 2009) compared to adult problem gambling in England (0.5%, Health and Social Care Information Centre, 2013), Scotland (0.7%, Richardson et al., 2013) and Great Britain (0.9%, Wardle et al., 2011). However, there are methodological issues which should be taken into account when drawing comparisons between the two datasets. The data was collected using different sampling methods (school based versus household survey) and different screening tools were used. This is likely to have had an impact on the prevalence rates estimated from these surveys; however, without longitudinal data which could potentially support this theory it is difficult to say with confidence that young people mature out of gambling problems.

6.1.2 Age and Social Competence

Young people may not be as competent as adults in making decisions about gambling behaviour. The prefrontal cortex is responsible for a range of behaviours including making judgement and regulating impulses, and does not become fully developed until around age 25 (Giedd, Blumenthal, Jeffries et al., 1999; Gogtay, Giedd, Lusk , 2004; Hooper, Lucian, Conklin & Yarger, 2004; Shaw Kabani, Lerch et al., 2008; Winters, 2007). An underdeveloped prefrontal cortex may contribute to choices that are not optimal to one's wellbeing, with

[10] The term 'young people' used in this document is an umbrella term representing phrases including: children; teenagers; adolescents; juveniles; and youth, all of which are employed by many of the studies identified in this review. Whilst the term 'young people' has been used in the literature to relate to anyone under the age of 24 years (Valentine & Skelton, 1998), for the purposes of this report it is used to refer to those aged under 18.

minimal consideration for the consequences of that decision, and a greater likelihood of taking risks (Blakemore & Robbins, 2012; Winters, 2007). In particular, the relatively slow development of impulse control and the hyper-sensitivity of the reward system in adolescents may have a particular impact on decision-making in gambling (Blakemore & Robbins, 2012).

The issue of competence is a separate issue from whether early gambling participation is likely to increase the likelihood of developing a gambling problem. Therefore, when considering the issue of age restriction it is important to consider not only whether a form of gambling is likely to cause harm, but also whether young people are able to make competent decisions when taking part.

6.1.3 The Impact of Early Exposure

When considering the impact of age restriction on problem gambling, it may be instructive to explore the prevalence rates of problem gambling in jurisdictions with different regulations regarding age. However, an accurate comparison is difficult to make, as studies conducted in different countries use a range of different screening tools to estimate problem gambling prevalence rates. Methodological issues aside, it is interesting to note that there are no clear trends in differences in adolescent or adult problem gambling prevalence rates between jurisdictions which vary in their regulatory approach to age restriction (Rossen, 2001; Shaffer & Hall, 2001). However, where youth gambling is prohibited, past-year prevalence of adolescent problem gambling tends to be just as high, if not higher, than adult problem gambling (Gupta & Derevensky, 1998; Rossen, 2001; Shaffer & Hall, 2001; Vitaro et al., 2004; Chalmers & Willoughby, 2006; Ipsos MORI, 2009; Blinn-Pike et al., 2010; Volberg, Gupta, Griffiths, Olasson & Delfabbro, 2010; Wardle et al., 2011; Williams, Volberg & Stevens, 2012).

The level of adult problem gambling in England (0.5%, Health and Social Care Information Centre, 2013), Scotland (0.7%, Richardson et al. 2013) and Great Britain (0.9%, Wardle et al., 2011) appears to be lower than that found in many other countries. Higher prevalence rates of problem gambling have been estimated in Australia (2.6%, Hare, 2009); Canada (2.4%, Williams & Wood, 2008); Denmark (0.8% Ekholm. Eibery, Davison et al., 2012); Italy (2%, Barbaranelli, Vecchione, Fida & Podio-Guiduglie, 2013); Hong Kong (3.3%, Hong Kong Polytechnic University, 2012); New Zealand (1.7%, Mason, 2009); South Africa (6.4%, Collins & Barr, 2009); and the USA (1.5%, Kessler, Hwang, LaBrie et al., 2008). Countries in which young people have greater access to gambling opportunities (e.g., Great Britain), tend to have lower adult problem gambling rates (Williams, Volberg & Stevens, 2012).

However, in other studies, early participation in gambling has also been found to correlate with gambling problems later in life (Gupta & Derevensky, 1998; Kessler et al., 2008). Furthermore, it has been shown that the younger the age of the onset of a gambling problem, the greater the number and severity of negative consequences associated with gambling in later life (Shead, Derevensky & Gupta, 2010; Derevensky, 2012). These data are correlational, and without robust longitudinal research it is difficult to conclude whether early uptake causes more numerous and more significant problems later in life; or whether those who are predisposed to risk-taking or problem gambling may be more likely to seek out gambling earlier in life.

6.1.4 Age Verification

The following section does not cover in any detail the operational issues relating to age verification, including the technological or legal aspects of enforcement. Rather, here we consider the theoretical or strategic basis for age verification and how this might inform best practice or shape priorities for future research in this area. For a review of age verification techniques in the remote sector see Nash et al., (2013).

6.1.4.1 Impact of Social Environment

Younger people are often introduced to gambling by family and friends, who may portray gambling as a harmless activity and, in some circumstances, may even be problem gamblers themselves (Gupta & Derevensky, 2000; Jacobs, 2000). The tolerance of family and friends may make it easier for young people to gain access to age-restricted gambling activities. Ladouceur, Boudreault, Jacques and Vitaro (1999) found that only 5% of parents would try to stop their child from partaking in gambling behaviour; whereas the vast majority of parents would prevent their child from taking drugs, and over 60% would impose restrictions on alcohol use. It has also been shown that only 2% of adolescents ever gamble alone, whereas 59% of adults always gamble alone (Valentine & Hughes, 2008). This has significant implications for explaining young people's access to restricted forms of gambling, as they may be relying on older friends or relatives as an access point to, and a means to pay for, the activity. In general, enforcement of age restrictions is more rigorous where the gambling activity takes place in adult-only venues (Delfabbro, Lahn, & Grabosky, 2005; Felsher, Derevensky & Gupta, 2004), which is logical given that both access and consumption would be restricted at such venues.

Permissive significant others (e.g., family, friends) can undermine the effectiveness of minimum age restrictions on cigarette sales (Lantz et al., 2000; Fichtenberg & Glantz, 2002; Backinger et al., 2003); Jansen, Toomey, Nelson et al., 2011; Richardson et al., 2009; Ross et al., 2006). As young people find it harder to access products from commercial sources they tend to shift to other available sources. Millett, Lee, Gibbons, and Glantz (2011) explored the impact of an increase in minimum age for tobacco purchase from age 16 to 18. They reported that before the increase, children who were eligible for free school meals (a proxy measure for lower socio-economic status) were significantly more likely to have cigarettes bought for them by parents. After the increase, there was no significant difference between parental purchasing behaviour according to SES, suggesting that more parents from higher SES backgrounds were willing to purchase on behalf of their children after the increased age restriction came into force. It is important to be mindful of such unintended consequences when considering regulatory approaches to restricting ages in gambling.

It may be that operators have a role to play in not only enforcing age restrictions, but also in briefly educating customers about the impact of underage gambling to dissuade from providing underage access. There may be lessons to be learnt from the alcohol and tobacco industries. Messages around the implications of supply of alcohol to people under the age of 18 have been shown to reduce negative outcomes such as anti-social behaviour. A Japanese campaign to prevent underage drinking and the provision of alcohol to minors used advertisements in newspapers and on public transport which raised the proportion of those acknowledging that underage drinking was a problem by 12% (Elliot, Morleo & Cook 2009). Stafstrom et al., (2006) found that distribution of leaflets to parents, alongside efforts to reduce underage sales and the adoption of community alcohol policies, reduced the risk of experiencing an alcohol-related accident or violent incident by 40% for 14-16 year-olds between 1999 and 2003.

6.1.4.2 Factors Determining Staff Compliance in Restricting Age-Inappropriate Purchasing

Notwithstanding the role of social environment in circumventing age restrictions, vendor behaviour is a critical factor in promoting compliance with regulation relating to age restriction. While there has been limited research specifically addressing gambling, there have been studies examining the issue in relation to other health-related behaviours. A qualitative

investigation of vendors' reasons for noncompliance with alcohol age restrictions in the Netherlands (Van Hoof, Gossett & DeJong, 2012) identified the following:

- Difficulty in estimating the buyer's age;
- Concerns about aggression and intimidation;
- Reluctance to ask (e.g., 'not wanting to act like a police officer'; lacking confidence);
- Workload, time restrictions;
- 'Secondary Purchasing' – i.e., alcohol being bought for a minor by someone else after a previous unsuccessful attempt to purchase;
- Relationship to buyer;
- Use of fake identification.

In the same study, Van Hoof et al. (2012) identified factors that were likely to increase the likelihood of vendor compliance with age restrictions, which included:

- Having an understanding of the potentially harmful impact of drinking on physical and mental health;
- Not wanting to contribute to potential alcohol abuse;
- Associating underage drinking with public nuisance;
- Understanding enforcement issues and wanting to avoid fines or prosecution.

Levinson et al. (2002) found that when retail staff requested identification for cigarette sales, those who presented valid identification which confirmed that they were underage were six times more likely to be sold cigarettes than those who did not produce identification. This implies that staff were satisfied with the presentation of identification only, and did not always take care to actually verify the customer's age. This emphasised the importance of a two-step approach to retail age restrictions: first, requesting the presentation of a valid and accepted form of identification and second, verifying the appropriate age. Individual characteristics of the retail staff also influence compliance. Age restrictions were more likely to be enforced when staff were older (Levinson et al., 2002), female (DiFranza, Celebuki and Moweri, 2001) and Asian (Landrine, Klonoff, Campbell, & Reina-Patton, 2000).

Evidence from mystery shopper reports on age verification for tobacco purchases shows that mystery shopping visits with immediate feedback can improve age verification (Krevor, Ponicki, Grube and DeJong, 2011). This may, however, have been a function of staff becoming more aware that mystery shopping visits were taking place in their area, and increasing their compliance behaviour: Krevor and colleagues describe this as an opportunity for larger operators to share information between premises as it may increase the impact of mystery shopping exercises on compliance. Levy and Friend (2001) found that multi-component approaches, including active enforcement of compliance by vendors and severe penalties for non-compliance, community education and mobilisation were the most successful in reducing underage sales of cigarettes. In Australia such an approach (Tutt, Bauer & DiFranza, 2009) reduced non-compliance from 30.8% to 0% over five years. A multi-component approach to age restriction in the UK gambling industry may have a similar impact.

6.1.5 Key Points

- While the evidence on long-term impact of early exposure and starting age is unclear, age restrictions remain critically important to minimising harm. This is because younger consumers have a higher predisposition for risk-taking, and lower levels of

both competence and experience in making financial transactions particularly in complex environments (e.g., e-commerce).

- Some of the responsibility for enforcing age restrictions falls outside of the operator's remit. Resources from within a young person's social environment (e.g., friends and family) play a significant role in helping young people circumvent age verification in retail environments. Consequently, there is a need to educate parents, most likely through public marketing. Operators may also play a role through retail communications or staff vigilance around suspect cases of underage purchasing.
- Staff training is likely to be an important means of improving compliance in age restriction. Good training should educate on the potential implications for the employee, the consumer and the organisation that result from failure to enforce age restrictions. Training should promote active rather than passive engagement (e.g., confirming age-appropriateness and not just possession of valid identification).
- Evidence from other risk-related behaviours (e.g., smoking) demonstrates that more restrictions do not always have a positive impact and may divert resources from more deserving initiatives. This highlights the importance of strategic, evidence-informed policy rather than reactive, politically-led initiatives with little empirical basis.

6.2 SELF-EXCLUSION

6.2.1 Function and Form of Self-Exclusion

Enabling gamblers to remove themselves from the gambling situation (operationally referred to as 'voluntary self-exclusion') is the most restrictive of harm minimisation measures. There is mixed support for the usefulness of self-exclusion. Some suggest that it is an important component of a public health response to minimising gambling-related harm (Gainsbury, 2013), whereas others (Productivity Commission, 2010) identify it as a reactive, inflexible approach primarily facilitating abstinence rather than control.

6.2.1.1 Function of Self-Exclusion

Our ability to control our behaviour is determined by our personal goals, our motivations, the feedback we receive about our behaviour and our 'self-regulatory resources' (i.e., our reserves of 'willpower', and how quickly they deplete) (Vohs, Baumeister, & Ciarocco, 2005; Vohs, et al., 2008). Considered in these terms, self-exclusion has traditionally been the 'last resort' when other approaches to facilitate player control fail. Operators can help to facilitate self-control by providing timely behavioural feedback, limit-setting options and restricting access to additional funds (see previous sections on 'Facilitating Awareness' and 'Facilitating Control'). However, if self-control still breaks down, operators can remove the need to rely on one's 'self-regulatory resources' by denying access to their gambling products. This option, however, requires ceasing gambling altogether (depending on which gambling opportunities are covered in the agreement). However, restrictions on gambling access are now being used more creatively and more flexibly to promote responsible gambling to a wider range of gamblers (Griffiths, Wood, Parke, 2009).

6.2.1.2 Form of Self-Exclusion

The form of self-exclusion agreements varies considerably according to product, operator, venue, sector, channel and jurisdiction. Key variations in form include whether:

- Provision and promotion is voluntary or mandatory;

- Agreements are enforced on a site-specific or operation-wide basis;
- Agreements are revocable;
- Duration of agreement is brief, long-lasting or permanent;
- Customers are removed from all promotion and mailing lists;
- Information regarding treatment and support is provided;
- Winnings may be confiscated in the event of a breach (e.g., disentitlement);
- Third parties can enact a self-exclusion agreement;
- Agreements only apply to certain products under certain conditions, and;
- Agreements should be legally-binding contracts with sanctions for breaches by either/both parties.

6.2.2 Current Evidence and Methodological Limitations

The existing literature will only make a limited contribution to current academic, operational and regulatory challenges in Great Britain regarding self-exclusion for the following reasons:

- The majority of the research studies were completed over five years ago. Gambling generally, and self-exclusion specifically, are influenced by changes in technology (e.g., more opportunities to circumvent the agreement; more opportunities for sharing and managing central lists between operators);
- Most studies focus on large, destination resort style casinos;
- None of the studies draw their samples from gamblers in Great Britain;
- Most studies consider agreements relating to land-based and not remote operations;
- Most studies did not use a control group and consequently any impact cannot be causally attributed to the self-exclusion intervention (i.e., gamblers might have improved naturally[11] even in the absence of undertaking self-exclusion);
- Most studies used samples which were self-selected (i.e., the sample may not be representative of all self-excluders) and relied on self-report data (inaccurate or biased recall);
- Finally, it is not clear from the research what gambling alternatives were available. For example, greater accessibility to gambling (remote or land-based) will be likely to undermine a self-exclusion agreement with one venue or provider.

6.2.3 Promotion, Uptake and Reinstatement of Agreements

Simplicity and convenience are key guiding principles underpinning successful self-exclusion (Gainsbury, 2013; Nowatzki & Williams, 2002; Responsible Gambling Council, 2008; Williams, West & Simpson, 2013). However, the active promotion of self-exclusion varies considerably across operators, sectors and jurisdictions.

Accordingly to the literature, operator-based promotion of self-exclusion in various jurisdictions is considered to be comparatively weak. In one study in Australia, for example, despite the mandatory promotion of self-exclusion programmes, only 10% of venues were identified as visibly promoting their programmes (Interchurch Gambling Taskforce, 2000). In a South Australian sample of self-excluders, it was reported that only 11% were prompted by

[11] *Problem gamblers willing to take the action to self-exclude are likely to be qualitatively different (e.g., in terms of motivation to improve, social support etc.,) to those problem gamblers to do not undertake action to self-exclude.*

staff, and of the 17% who had independently approached staff to request possible options for managing their problem, only half were given information about self-exclusion (Hing & Nuske, 2012). Similarly, in a German sample, only 39% reported any previous awareness of the option to self-exclude prior to seeking help on their own initiative (Hayer & Meyer, 2011a). Rate of uptake of self-exclusion options among problem gamblers is considered to be very low: estimates range between 0.4% and 3.5% of problem gamblers in land-based venues (Nowatzki & Williams, 2003; O'Neil et al., 2003; SACES, 2003).

6.2.3.1 Barriers to Uptake

Nowatzki and Williams (2002) suggest that in practice, the self-exclusion process requires an investment of time, and potential embarrassment, both of which may act as a disincentive to uptake. Disincentives are considered in more detail below.

6.2.3.1.1 Inconvenience

The general requirement for self-exclusion to be simple and convenient is arguably most relevant to the implementation process once the gambler has made the decision to take action. A variety of options for activation such as the internet, telephone or in person should be made available (Productivity Commission, 2010). Technology may drive evolution in this regard drawing on other media promoting convenience such as mobile phones and Apps. In addition to variety in channels, consideration might also be given to extending activation points beyond operations to potentially include relevant third parties such as treatment providers or the regulator (Responsible Gambling Council, 2008).

6.2.3.1.2 Embarrassment

Requirements to enact a self-exclusion agreement in person (or through phoning customer services in the case of remote gambling) may cause embarrassment, thereby acting as a disincentive (Productivity Commission, 2010). This may be due to the potential stigma of help-seeking behaviour. Individuals suffering more generally from psychological or psychiatric distress, even if severe, often do not seek help (Bebbington, Meltzer, Brugha, Farrell, Jenkins, Ceresa & Lewis, 2000). Specifically, only around 10-15% of problem gamblers ever seek help (Cunningham, 2005; Slutske, 2006; Volberg, Nysse-Carris, & Gerstein, 2006; Productivity Commission, 1999; Ministry of Health, 2007; Suurvali, Hodgins, Toneatto & Cunningham, 2008).

6.2.3.1.3 Exposure and Relapse

Finally, if a gambler has taken steps to stop gambling, and has demonstrated impaired control in the gambling environment, then it may be counterproductive to require them to visit the gambling venue. Hing and Nuske (2012) found that self-excluding in the gambling venue put the individual in a position of necessary further exposure to gambling. This may also apply to remote gambling where the gambler is required to visit the website to enact.

6.2.3.2 Reinstating a Self-Exclusion Agreement

Reinstatement of a self-exclusion agreement should be made possible from various points of activation, removing the need to visit the venue and face potential temptation to gamble (Hing and Nuske, 2012; Responsible Gambling Council, 2008). It has also been recommended that the restrictions should only be lifted after some form of 'positive action' (i.e., a request to return to the casino) rather than permitting access automatically at the end of the exclusion period (Responsible Gambling Council, 2008).

6.2.4 Detection and Enforcement of Self-Exclusion

In research exploring casino-based self-exclusions in other jurisdictions, evidence suggests that at least 50% continue to gamble either with the same provider or elsewhere[12] (DeBruin, 2001; Ladouceur, Jacques, Giroux, Ferland, & Leblond, 2000; Ly, 2010; Nelson et al., 2010) and that 33–77% of breaches go undetected by staff (Croucher et al., 2006; Schellinck & Schrans, 2004). Nelson and colleagues (2010), in their Missouri casino-based study, followed up with 113 self-excluders, reporting that only 25% ceased gambling completely. Of that sample, 16% had reported breaching their agreement with the originating casino.

Evidence also suggests that the probability of a breach increases considerably over the duration of an individual's agreement (Ladouceur, Sylvain & Gosselin, 2007; Ly 2010). In Tasmania, for example, only one person from a sample of 40 self-excluders reported gambling during the first three months; however, over half of the sample eventually did breach before the end of their agreement (Ly, 2010).

6.2.4.1 Disincentives for Breaching Self-Exclusion

6.2.4.1.1 Embarrassment

Ly (2010, p. 57) identified that a key disincentive to breaching self-exclusion agreements was embarrassment, with patrons suggesting that they "*just couldn't go*". However, the impact of potentially being embarrassed may be moderated by perceived responsibility for maintaining that agreement (with embarrassment potentially being lower where they reject responsibility). Even where consumers are made aware of their rights and responsibilities under a self-exclusion agreement, many still believe it is the responsibility of the operator to ban them from accessing and participating in gambling activities (Responsible Gambling Council, 2008).

6.2.4.1.2 Penalties

Penalising the self-excluder may act as a disincentive to breaching their agreement. However, financial penalties may be unworkable as it would suggest that the problem gambler has control over their gambling which not usually the case (Napolitano, 2003; Faregh & Leth-Steenson, 2009). Nowatzki and Williams (2002) warn against the use of a financial penalty given the deleterious impact it would likely have on a problem gambler's economic situation.

6.2.4.1.3 Disentitlement

While imposing financial penalties may not be feasible, an alternative disincentive may be to withhold any winnings where gamblers are in breach of their self-exclusion agreement. This is done in various US states (Illinois, Pennsylvania, Michigan and New Jersey; Ladell & Smith, 2011). The primary disincentive for the problem gambler in this instance is to remove the motivation to chase losses. While evidence suggests that the long-term motivation of problem gamblers is not financial (Binde, 2013; Stewart and Zack, 2008), the opportunity to gamble and win money is still a critical component of impaired control given its relationship to excessive loss-chasing behaviour. The British Columbia Lottery Corporation found some

[12] *However, it is often unclear on which forms of gambling the self-excluder will continue. If continuing on less harmful forms of gambling this may be considered a positive outcome*.

support for this claim from stakeholder interviews following their implementation of a disentitlement policy (Ladell & Smith, 2011) in addition to suggestions that reduced excitement may also deter breaches.

It has been suggested that the operator may allocate forfeited winnings to support research, treatment and education in problem gambling, which would ensure there is no misunderstanding regarding the aims and objectives of the initiative (Productivity Commission, 2010).

However, the extent to which this approach would be legally enforceable is questionable. Napolitano (2003) suggests that, in some jurisdictions where such arrangements are in place, these ultimately have not proved legally permissible. However, the legal framework may have shifted over the last decade.

6.2.4.1.4 Disincentives for Operators: Enforcing Enforcement?

In some jurisdictions (e.g., Tasmania, Ly, 2010) breaches incur fines for the operator, a practice that has been advocated by some experts (Nowatzki and Williams, 2002) to incentivise improved enforcement efforts among operators. Furthermore, in some jurisdictions, such as the Netherlands, computerised ID checks are required for casino entry and the level of recorded breaches is significantly reduced if not eradicated as result (Nowatzki and Williams, 2002).

6.2.4.2 Improving Detection

Ly (2010) makes the following suggestions for the improvement of detection accuracy in self-exclusion:

- Requiring self-excluders to provide both a profile and a camera-facing photograph for each agreement and requiring staff to spend time looking at the photos at the start of every shift;
- Electronic (such as a driver's licence or player card) rather than paper-based systems could enable operators to effectively check patrons against a database of self-excluders;
- An electronic identification system may also have the added benefit of enabling venues to detect minors, identify other unwelcome patrons, and to assist player tracking and data management.

6.2.5 Beyond Uptake and Exposure: Assessing Impact of Self-Exclusion

There is currently a void of robust evaluation studies which can offer any meaningful insight into the impact of self-exclusion in minimising gambling-related harm (Gainsbury, 2013; Nowatzki & Williams, 2002; Responsible Gambling Council, 2008). Evaluation of impact should explore 'effectiveness' (impact on gambling-related harm) and 'efficiency' (required resources being used optimally to minimise harm) rather than just promotion and take-up as the only indicators of success.

In terms of effectiveness, numerous studies across a variety of jurisdictions have reported reductions in problem gambling (Hayer & Meyer, 2011a; Ladouceur and colleagues, 2000, 2007; Nelson et al., 2010; Tremblay et al., 2008). There has also been support that such positive impacts are enduring, with impact still noted at follow-up periods up to ten years later (Nelson et al., 2010; Hayer & Meyer, 2011a). Improvements in wellbeing (Hayer & Meyer, 2011a; Ladouceur et al., 2007; Nelson et al., 2010), control over gambling (Ladouceur et al.,

2007), and social and familial functioning (Ladouceur et al., 2007; Tremblay et al., 2008) have also been reported. No studies to date have examined efficiency in provision.

6.2.6 Profiles, Motivations and Markers for Self-Exclusion

Research examining land-based self-exclusion converges on a similar demographic profile for the typical land-based self-excluder. They were predominantly male, middle-aged, married or cohabiting; and the vast majority were problem gamblers (De Bruin et al., 2001; Hafeli, 2002; Ladouceur et al., 2000; Ladouceur et al., 2007; Nelson et al., 2010; Steinberg & Velardo, 2002). Gender differences were also reported, with female self-excluders more likely to be older, be divorced, separated or widowed, have shorter gambling careers and to prefer games determined by chance (Nower & Blaszczynski, 2006). In remote gambling settings, profile tends to vary somewhat, with excluders being more likely to be single (Hayer and Mayer, 2011b) and younger (Dragcevic et al., 2013; Hayer and Mayer, 2011b; Wardle, 2012).

While the earlier empirical evidence offers some support for the claim that it is predominantly problem gamblers who request exclusion agreements (Ladouceur et al., 2000; Steinberg & Verlado, 2002; Blaszczynski & Nower, 2004), more recent European studies focussing on samples from remote operations have shown that self-exclusion agreements are used by players from across the full problem gambling spectrum (Griffiths et al., 2009; Hayer & Meyer, 2011b; Wardle, 2012) with as few as 10% of excluders doing so to manage gambling-related harm in one study (Griffiths et al., 2009). Griffiths et al. also reported that less than 1% of their remote gambling sample used self-exclusion to attempt a permanent cessation of gambling. However, it is unclear whether these differences in motivation reflect changes over time, differences across jurisdiction, differences between remote and land-based operations or a combination.

In a series of innovative studies using player data captured from a remote gambling operator, Shaffer and Colleagues identified a series of behavioural markers indicative of whether a gambler eventually self-excludes, including higher staking levels, higher levels of net expenditure, greater variability in betting and greater frequency of play (Braverman and Shaffer, 2012; LaBrie and Shaffer, 2011; Xuan and Shaffer 2009). In another study, also drawing on behavioural data, this time from a different remote operator, Dragcevic et al. (2013) reported that self-excluders were more likely to have a higher net expenditure and to play casino games.

6.2.7 Key Points

- Existing literature offers limited new insight into challenges related to self-exclusion in Great Britain. Most studies are outdated, specific to a particular product or jurisdiction, rely on weak research designs, and draw from self-selected samples. However, some of the evidence merits consideration and this is presented below.
- Evidence from other jurisdictions suggests that promotion of self-exclusion is weak in gambling venues. Expectations for operators regarding what constitutes reasonable attempts at promotion should be more prescriptive, which would also allow for auditing and evaluation.
- Enactment (and reinstatement) should be simple and convenient, remotely accessible, discreet and minimise further exposure to gambling products.
- Long–term focus for improving enforcement is the evaluation of efficient options to use technology (e.g., card-based options or biometrics) to improve detection of

breaches. However, more short-terms options with relatively lower costs such as withholding winnings may be worthy of further investigation.

- Evidence suggests that even though most excluders breach their agreement, there is usually significant positive impact on financial, social or mental wellbeing. Whether these improvements would have happened in the absence of a self-exclusion agreement remains unclear.
- Self-exclusion should not have to represent a 'last resort' or abstinence-only option. A wider range of gamblers may choose to engage on a more flexible or temporary basis. The most likely barrier to a more flexible approach may be the operational implications and costs in providing a more complex set of exclusion options.

6.3 Multi-Operator Self-Exclusion Schemes (MOSES)

A fundamental criticism of existing self-exclusion arrangements, in relation to both land-based and remote gambling, is the relative ease with which most consumers can continue to gamble at other venues, sites, operators, sectors or jurisdictions. This situation not only undermines the potential impact of self-exclusion to problem gamblers but penalises more responsible operators. Consequently, there exists an imperative to explore and develop a 'Multi-Operator Self-Exclusion Schemes' (MOSES) where data and resources can be shared so that gamblers can have the choice of a more comprehensive reach when they take the decision to self-exclude.

An important consideration, particularly in the context of land-based operations, is that an outcome should justify the resources that would be required to support it. For example, it may not be a prudent use of resources to develop a system permitting a consumer enacting a self-exclusion agreement in the south of England, to expect an exclusion request to be successfully enforced in a venue of the same operator in the north of Scotland. The likelihood of such a system being necessary to minimise harm would be extremely low, and the resources required to support it would be extremely high. This focus on efficiency is not about protecting industry profits but about ensuring that resources dedicated to harm minimisation are used in an optimal way.

Regarding options in the remote sector, technological developments can drive self-exclusion to evolve through the creation and maintenance of an anonymous and secure 'register' (Dragicevic, 2011, Francis, Dragicevic and Parke, 2012). Such technology could give gamblers the option to restrict access beyond the original site to other operators participating in the scheme. An example of a 'data aggregator' (*Veriplay*), a solution that stores the data, which would support such a service is described and explained in Appendix 1.

Table 1: Challenges and Potential Solutions for Implementing MOSES in the Remote Gambling Sector *(S. Dragicevic, personal communication, September 18, 2011; Francis et al., 2012)*

Industry Concerns	Response
Technical integration	*A small number of data fields are required to share amongst operators which are available from every operator making operator integration very simple. *In addition operators can manually upload CSV files to the system, which means that operators can start sharing relevant data without any technology integration.
System development and maintenance cost	*In the case of VeriPlay (see Appendix 1) which uses established cloud technologies it is quickly and easily scaled to on-board additional operators. The cost of storage, central processing units and network bandwidth has exponentially decreased since the 1980s, e.g., the cost per terabyte of storage from Apple in 1980 was $14 million, today it is $70 (Barracuda); therefore, this is not an issue. *Additional industry and regulatory requirements can also be quickly and cost effectively added to the system to ensure it can evolve at the pace that industry innovation changes to meet operator requirements e.g., supporting self-exclusion across different gaming verticals. *Arguably more expensive self-exclusion systems (e.g., facial recognition technology) have already been adopted in some global jurisdictions e.g., Canada.
Data privacy	*Secure encryption algorithms ensures data always remains anonymous except for the operators sending and receiving the data i.e., ensuring a player's anonymity by separating a player's identity from the player's account data. This can be achieved through a number of proven statistical and mathematical methods, including data reduction, data perturbation and data hashing methods. *Therefore, data stored in this encrypted format is meaningless to the operator of the self-exclusion service (VeriPlay) and is arguably more secure than when stored in the gambling operator's own data centre. *There is a precedent for sharing data as operators today share anonymised player data for non-commercial reasons e.g., European Sports Security Association (ESSA) to ensure integrity in online sports betting, bwin and Harvard Medical School's collaboration into problem gambling research.
Conflicting national laws	*Not a valid reason; it makes sense to adopt schemes at a national level as it is likely one would need to be a citizen of a regulated jurisdiction to gamble, which is what many jurisdictions are now actively implementing e.g., the Danish regulator is making a step towards such a scheme with ROFUS (problem gambling register).
Service abuse	*Independent audits could enforce the integrity of a scheme. However it is highly unlikely that established and regulated operators would risk their reputations by abusing such a scheme. If required, penalties could also be defined by the industry and/or regulators to ensure service abuse does not exist.
Driving customers to unregulated operators	*Ensuring customers gamble with responsible, regulated operators is a broader regulatory issue that the EU and the industry need to work together to tackle, and is not an excuse for not implementing such a service which could go a long way in protecting vulnerable gamblers.
Independent service management	*The service could be governed collaboratively with relevant industry organisations or could be technically managed on behalf of a regulator or problem gambling treatment provider. The service could also easily be hosted on a regulator or other server if required.

6.3.1 Operational Challenges

Table 1 summarises the potential challenges that have been identified by the industry, and responses/resolutions to these challenges (S. Dragicevic,[13] personal communication, September 18, 2011; Francis et al., 2012). Concerns include prohibitive costs, data privacy, integration challenges with various IT infrastructures, the potential for service abuse, driving customers to unregulated markets, and the need for independent service management. Dragicevic and colleagues believe some of the challenges can be overcome through effective policy and process design and through the use of secure technologies that are currently used to protect player data in regulated markets.

Table 2: Governance Options for MOSES *(Francis et al., 2012)*

	Scoring Criteria	Regulator-Driven System	Operator-Driven System	Player-Driven System	Computer Blocking
Functional Scope Potential	*Multi- Channel Support* Can the approach support multi-operator self-exclusion across multiple gaming channels e.g., retail, internet, mobile, etc.?	5	5	5	2
	Integrate Future Requirements Is the approach flexible and extendable to integrate future industry developments and functional requirements e.g., managing self-exclusion by gaming vertical across operators?	4	6	3	2
	Multiple-Access Points Can the approach support multiple integration approaches, such as access to a central list via a technology integration (e.g., web API), human access to a list via a portal, etc.?	6	6	6	1
	Supports Problem Gambling Research Does the approach lend itself to support future academic research into problem gambling, for example via access to anonymised player data on problem gamblers on a central list?	6	5	2	2
Total		**21**	**22**	**16**	**7**
Adoption Potential	*Mandatory Operator Adoption* Can the approach achieve mandatory adoption from gambling operators in a jurisdiction?	6	4	2	1
	Low Marketing Effort Does the approach require minimal marketing effort to raise sufficient awareness amongst all consumers?	6	3	1	2
	Low Cost to Player Does the approach require minimal time and cost to consumer to use?	6	6	3	1
	Low Cost to Operator Does the approach require the minimal operator investment in developing and/or integrating to the solution or service?	3	2	4	5
Total		**21**	**15**	**10**	**9**

Notes: scored 0-6 with 6 being positive

6.3.2 Delivery and Governance Options

Francis et al. (2012) assessed the potential options for the delivery and governance of a collective self-exclusion solution and categorised these into four categories of system: a 'regulator-driven system' whereby operators would be mandated to generate, manage and use a collective list (e.g., Danish regulatory approach); an 'operator-driven system' overseen by an industry collaboration in the absence of mandatory regulatory requirements; a 'player-driven system' where players voluntarily add their names to the list and gambling operators can engage on their own terms (e.g., Aristotle and PlayerVerify) and a final option involving 'computer blocking software' which is purchased, downloaded and blocks access to gambling sites (e.g., Gamblock).

Francis et al. carried out a subjective assessment of the potential effectiveness of approaches according to two dimensions they developed, including 'Functional Scope Potential' and 'Player Adoption Potential'. This assessment is summarised in Table 2. Francis et al. concluded that the preferred governance solution would either be regulator-led with significant industry involvement, or operator-led with regulator endorsement. The player-driven and software blocking approaches were considered inferior due to significant limitations as identified in the Table. However, if 'simplicity' and 'barriers to implementation' were considered as part of the assessment then a player-driven system may also carry weight, particularly if it initiates a process which eventually leads to a more robust approach.

6.3.3 Key Points

- The potential effectiveness of self-exclusion is undermined by the opportunity to gamble at different venues, with different operators, on different products, and even in different jurisdictions. While technological developments increase accessibility to gambling, they also facilitate securely sharing information on a large scale, making some form of multi-operator self-exclusion a realistic option.
- Initial feasibility studies have identified a series of potential challenges demonstrating that any self-exclusion solution involving multiple operators will not be straightforward or amenable to a swift implementation.
- Technical, legal and operational challenges aside, appropriate governance of any solution is a critical consideration. A regulator-driven governance approach initially appears to offer the most advantages; however, a player-driven approach, while less effective, could be easier to set up and may initiate formal initiatives to follow.

6.4 Other Challenges in Self-exclusion

6.4.1 Optimal Duration of Agreement

Duration of exclusion agreements varies considerably from a matter of hours in some remote operations (Griffiths, Wood, and Parke, 2009) to lifetime bans in some US states (e.g., Missouri; Nower & Blaszczynski, 2008). However, there is currently no academic consensus on the optimum length of exclusion for promoting harm minimisation and wellbeing. Nowatzki and Williams (2002) advocate an irrevocable five-year contract, and there is evidence that longer terms are preferred by gamblers (Ly, 2010; Steinberg & Velardo, 2002). There has also been evidence that longer bans result in lower and more stable visiting frequencies following the ban (De Bruin et al., 2001).

Conversely, some suggest that retaining flexibility through using shorter bans with the option to review or terminate may be most effective (Blaszczynski and Nower, 2004; Griffiths, et al., 2009; Productivity Commission, 2010) and that short-term options should be available as long-term or permanent bans may deter uptake (Productivity Commission, 2010). In the sample of internet gamblers, Griffiths et al. (2009) found 10% used the self-exclusion facility to take a 'temporary' break for a period of time. The most preferred exclusion term identified was a week-long term, endorsed by 46% of the sample.

Flexibility in duration of agreement may also promote self-control rather than enforcing abstinence and abdication of personal responsibility. Such flexibility may also increase uptake and the range of gamblers willing to consider it as an option for staying in control and avoiding harm. Although self-exclusion has traditionally been considered one of the final options for consumers failing to regulate their gambling behaviour (Williams et al., 2012) with increasing evidence that problem gambling is not necessarily a chronic condition (Delfabbro, 2013; Reith & Dobbie, 2012) the impact of shorter, more flexible exclusion arrangements merits further research.

6.4.2 Links to Treatment

In some jurisdictions, self-exclusion agreements are linked with treatment, either by referring self-excluders to sources of help, by mandating attendance at treatment sessions prior to reinstatement or by offering ongoing treatment and support as an integral part of the self-exclusion agreement (Ladouceur et al., 2000, 2007; Nowatzki & Williams, 2002). There is mixed support for whether operators should play a more active role. While there is some support that self-excluders would value signposting (O'Neil et al., 2003; Responsible Gambling Council, 2008), other evidence suggests that taking the step to self-exclude was sufficient for managing their gambling (Ladouceur et al., 2007). Further, Ladouceur et al., found that the majority of self-excluders were unreceptive to the notion of therapeutic support, with 49% considering it but only 10% eventually accessing it.

Beyond the notion of signposting, it is not clear whether operator-based self-exclusion should carry with it the requirement to seek some form of treatment. Most forms of talking therapies have been shown to benefit only those who are receptive and motivated (Arean & Miranda, 1996; Cooper et al., 2003). For this reason, mandatory counselling is not likely to be effective, and may actually act as a deterrent to entering into a self-exclusion arrangement (Nowatzki & Williams, 2002; Ladouceur et al., 2007; Responsible Gambling Council, 2008). Ly (2010) suggested that an alternative option may be to nominate a sponsor known to the individual to provide social support during the process, which could work better than a helpline providing support from strangers. Ly suggests that this may also help with potential boredom and social support during exclusion.

6.4.3 Third-Party Exclusion Requests

Some jurisdictions[14] have explored 'third-party' exclusions whereby a 'significant other' can request an exclusion be enacted to protect the welfare of the problem gambler (Thompson,

[14] In Singapore, for example, 'family exclusion' options exist, whereby a committee hears the views of the concerned party and takes a decision based on this information.

2001). However, this approach would require that the significant other can correctly identify that such an intervention is needed, which is a questionable assumption. It has been shown that while often motivated by an intrinsic desire to solve their gambling problems, 23% of self-excluders are persuaded by others to negotiate a self-exclusion agreement (Nelson et al., 2010). Also, such an approach opens up the possibility of abuse and would likely invoke a significant administrative burden. Nowatzki and Williams (2002) concluded in their review that this approach has been employed with only limited success.

6.4.4 Self-Exclusion by Product

One of the most controversial issues debated in gambling studies is whether different products have a variable potential to cause harm. There are various perspectives on this point:

- Variations in the form of gambling have limited relevance over the form of gambling-related harm (LaPlante, et al., 2009; Griffiths and Auer, 2012; Blaszczynski, 2013);
- Availability rather than form of gambling is more important (Abbott, Francis, Dowling & Coull, 2011);
- Variations in the form of gambling is a significant determinant of gambling-related harm (Binde, 2011; Orford, Griffiths & Wardle, 2012; Parke and Griffiths, 2007).

As outlined previously, critical examination of the role of structural characteristics (i.e., product-based harm minimisation) is beyond the scope of this report (which focusses on operations-based harm minimisation). That being said, it is important not to underestimate the fundamental importance of this issue in developing our understanding of harm minimisation in gambling.

Preferences to limit exclusions to certain products may also be determined by individual (e.g., personality, motivation and personal preferences) and environmental (location, medium, accessibility) variables. However, there are currently no directly relevant studies examining self-exclusion by product, and therefore research which explores player perspectives on harm minimisation strategy is required, of which the potential value of self-exclusion according to product should be a primary focus.

6.4.5 Key Points

- Exclusion should not be restricted as a tool promoting abstinence but should evolve if possible, as a tool promoting control. A high degree of flexibility regarding both the duration and the product tied to the exclusion agreement would be ideal. Those gamblers interested in longer-term, more comprehensive restrictions can achieve this from a flexible system. However, the relative impact on resources versus the impact on harm minimisation is yet to be determined. Further examination of these issues is an important next step.
- Some options have little empirical basis and should be prioritised; third-party self-exclusion and an ongoing link with any treatment and support. The link between operator-based self-exclusion and treatment should be limited to signposting only.

7 RESPONSIBLE MARKETING

7.1 CURRENT EVIDENCE AND METHODOLOGICAL LIMITATIONS

Concurrent with other attempts to inform policy strategy with respect to harm minimisation, there is a distinct lack of evidence regarding the impact of advertising on gambling behaviour, gambling-related harm (Derevensky, Sklar, Gupta & Messerlian, 2010) and the effectiveness of regulating advertising to minimise harm (Planzer & Wardle, 2011). It is widely accepted that behavioural intentions, shaped by attitudes and social norms, have a direct impact on behaviour execution, and that marketing, and advertising specifically, play an important role in attitude adoption and social norms (Luo, Chen, Ching & Liu, 2011). Therefore, it is not surprising that the impact of marketing on gambling behaviour has been the focus of several research studies. However, currently available research studies on the impact of advertising on gambling behaviour are only of partial use because of fundamental methodological limitations within the handful of existing studies. Ultimately, as identified in Binde (2014), there is substantial risk in adopting the evidence presented in the existing literature base prima facie and particularly in the context of applying the findings to inform regulatory policy for the marketing of gambling.

Advertising is conceptualised as an environmental variable in terms of its relationship and impact on gambling behaviour. Advertising is a single factor inherently integrated with a myriad of other environmental variables simultaneously presented within the wider regulatory framework and socio-cultural context (Binde, 2014; Planzer & Wardle, 2011). As a result, it becomes innately difficult to attempt to isolate and measure the individual contribution of advertising on a population's gambling behaviour with any validity. Indeed, even when there have been clear changes in the regulation of advertising in terms of permissible levels of exposure, such changes are often introduced within a broader realm of deregulation. For example, to measure prevalence of problem gambling in Britain pre- and post- implementation of the Gambling Act 2005, to account for change in response to the relaxation of gambling advertising laws would be of limited informativeness because relaxation of advertising laws was only one of many changes to the regulatory environment. Planzer and Wardle (2011) noted that the British Gambling Prevalence Survey did not demonstrate a sizeable increase in problem gambling since the deregulation implementation in 2007, but also identified that regardless of any positive or negative impact on gambling-related harm, there is likely to be a significant temporal lag before the impact will be observable. Furthermore, the impact of advertising on gambling behaviour is unlikely to be direct and linear; rather it is expected that the impact will be moderated by other structural and environmental factors (Binde, 2007). Binde (2007) evokes Bass' (1969, p. 291) famous contention that "there is no more difficult, complex or controversial problem in marketing than measuring the influence of advertising on sales," and provided the addendum that it will be even more complicated to measure its influence on gambling-related harm.

Beyond the challenges in attempting to evaluate the impact of an environmental factor in isolation, the existing studies exploring the impact of advertising on gambling are also of limited value given the significant validity limitations with respect to measurement and sampling. For example, Grant and Kim (2001) reported that from a population of treatment-seeking problem gamblers, 46% felt that television, radio and billboard advertisements

triggered an urge to gamble. As Binde (2007) outlined with reference to this particular study, the impact of advertising may not be consciously understood by the participant, and therefore there is a fundamental limitation in using self-report to determine the impact of advertising on behaviour. The use of self-report to measure the impact of advertising on gambling and gambling-related harm is highly prevalent across the few existing empirical studies in this field.

Another prevalent methodological limitation of the literature base constraining the application of the research findings is the utilisation of non-representative, self-selecting samples. For example, in an evaluation of the role of gambling media exposure on behaviour, Lee, Lemanski and Jun (2008) used a small sample (229) of undergraduate students; aside from being heavily skewed in terms of age, the sample was also skewed strongly towards females (79.5%). Ultimately, the challenges in measuring impact of advertising on behaviour, and the fundamentally flawed methodological designs of the few existing empirical studies means that very little is understood regarding the impact of marketing, and more specifically advertising, on gambling behaviour and gambling-related harm.

7.1.1 Key Points

- There is insufficient empirical evidence to understand the impact of advertising on gambling behaviour and gambling-related harm. Furthermore, the few existing studies have significant methodological limitations.
- It is inherently complex to attempt to measure the impact of advertising in isolation on gambling behaviour and gambling-related harm, because its impact is inherently tied to other environmental variables.
- The impact of advertising on gambling behaviour and gambling-related harm must be investigated as a component of a wider environmental framework, as the impact of advertising cannot be measured independently from other environmental variables.

7.2 Conceptual and Structural Regulatory Framework

In 2003, LaBrie and Shaffer highlighted a lack of connection between current regulatory approaches and the scientific evidence base surrounding problem gambling research, and advocated strongly for an evidence-based approach to gambling regulation. From an academic and scientific perspective, there is wide agreement that gambling should be regulated from a public health framework, where the gambler is considered to be the host, the gambling product is the agent and regulation is one of the environmental factors (Planzer & Wardle, 2011). Environmental factors essentially relate to the socio-cultural context which influences the interaction between the individual and the gambling activity. From this public health perspective, it is understood that marketing regulations are an environmental factor that will impact on both gambling behaviour and gambling-related harm.

LaBrie and Shaffer (2003) categorised gambling regulation into primary, secondary and tertiary sectors, arguing that focus was weighted too heavily towards minimising harm and intervention at the expense of more effective, upstream primary approaches such as restricting gambling advertising. Although LaBrie and Shaffer (2003) lament the lack of provision of upstream, primary prevention approaches within the US, in contrast, superficially at least, the UK appear to have established robust principles regarding the regulation of gambling advertising. Gambling advertising in Great Britain must adhere to the principles outlined in the UK Code of Non-Broadcast Advertising, Sales Promotion and Direct Marketing

(CAP Code, 2010), and the UK Code for Broadcast Advertising (BCAP Code, 2010) with the Advertising Standards Agency (ASA) acting to enforce high standards and investigate potential breaches of the various codes. Both the CAP and BCAP contain a specific section of the code regarding gambling advertising; however, it was felt necessary to improve the specificity of the code to assist members of the gambling industry. Therefore, a self-devised Gambling Industry Code for Socially Responsible Advertising was produced in 2007 to supplement the existing CAP/BCAP regulations. Furthermore, it is noted that the CAP and BCAP (2014) have also provided an additional source of guidance regarding more specific interpretations of the principles of socially responsible advertising. Although this additional guidance is welcome it is still argued that further guidance is required in order to minimise any potential ambiguity regarding what constitutes socially responsible advertising.

The voluntary code created by the gambling industry to promote socially responsible practice in gambling advertising within Great Britain is commendable as it outlines with more precision the guidelines to which members of the gambling industry should adhere. However, there are two potential issues of contention with regard to the provision and application of a self-regulated industry code. Essentially, recommendations for socially responsible gambling advertising are presented without empirical or theoretical qualification, and moreover there is no provision of evidence regarding their effectiveness in attempting to minimise gambling-related harm and therefore remain socially responsible. Although it is possible to agree general principles, such as not misleading customers, LaBrie and Shaffer (2003) have argued that in order for regulation, or in this case a voluntary code, to be endorsed and installed with legitimacy it must be informed by evidence. If the principles in the industry code are not informed by scientific evidence, then legitimately or otherwise, there may be criticism and cynicism with reference to the obvious conflict of interest between social responsibility and commercial objectives.

For example, within the industry code there is a guideline stating that broadcast advertising of gambling advertisements should observe a 9pm *watershed* to limit the exposure of children and adolescents (paragraph 31). However, in the subsequent section, a caveat is proposed that permits gambling advertisements around sporting events: "*given the direct relationship between the two* [gambling and sporting events] *it would be unreasonable to prevent the advertising of betting opportunities*" (paragraph 32). More justification and further clarity should be presented, empirical or otherwise, to provide legitimacy to the voluntary social responsibility principles advocated, to avoid the determination of the guidelines being considered arbitrary.

Furthermore, by definition, self-regulation is open to external criticism from anti-gambling stakeholders, despite corporate social responsibility being accepted as a fundamental element to commercial success in modern markets (Cai, Jo & Pan, 2012; Kesavan, Bernacchim & Mascarenhas, 2013). It is recommended that the principles outlined in the industry code are presented with empirical evidence or at least sustained with theoretical support, and that the process of self-regulation is made more externally transparent to stakeholders involved in gambling regulation, potentially in the form of independent oversight. Moreover, the effectiveness of the code principles should be systematically evaluated and made available, and consideration given to adapting and refining the existing code in response to the research findings. However, it must be emphasised that adherence to the code is considered voluntary, and the code is not a mandatory regulatory framework.

7.2.1 Key Points

- Gambling Marketing in the UK is ostensibly regulated by CAP and BCAP codes, and furthermore the voluntary Gambling Industry Code for Socially Responsible Advertising promotes a socially responsible approach.
- To provide legitimacy for the codes, the effectiveness of proposed regulatory and voluntary guidelines in minimising gambling-related harm must be supported by empirical evidence. It is acknowledged that this will only be achieved through an incremental and methodical process that will require a significant duration.
- The proposed regulatory guidelines, and to an extent the voluntary guidelines, should be periodically assessed for effectiveness, and adaptation in response to new empirical evidence.

7.3 Impact of Gambling Advertisement Exposure

Planzer and Wardle (2011), along with the aforementioned gambling industry advertising code, place primary emphasis on the need to limit the negative impact of gambling advertising on vulnerable subgroups within the population, in particular children and adolescents. However, before evaluating the impact on vulnerable populations, an assessment of the probable impact on non-problem gamblers and adults is required. Ostensibly, the fundamental concern regarding the mass provision of gambling advertisements is the potential increase in participation, and the anticipated increase in gambling-related harm that may increase as a result.

It must immediately be recognised that the impact of gambling advertising will not be linear across different jurisdictions, but rather the impact will be moderated by the nature of the existing market and other elements of the regulatory framework. Binde (2007) noted that gambling advertising expenditure in Sweden increased substantially between 1995 and 2006, but remains reticent in attempting to identify a one-dimensional impact on gambling behaviour. Rather, Binde (2007) highlights that the impact of mass gambling advertising in a mature gambling market will be distinct from the impact on an immature market where gambling opportunities are relatively new in terms of availability. Indeed, it is argued that an increase in advertising in an established market is more likely to create gambling product or brand transfer, rather than an overall increase in the market (Binde, 2007).

Exposure to gambling advertising is understood from a public health perspective to be a societal risk factor to encourage gambling participation, and in turn, may lead to an increase in gambling-related harm (Shaffer, LaBrie & Laplante, 2004). Essentially, the greater the level of exposure, the greater the segment of population at risk of experiencing problem gambling (Shaffer et al., 2004). As discussed previously, given the limitations and challenges in measuring individual impact for each environmental factor, it is not possible to draw conclusions on the specific role of advertising. Shaffer et al. (2004) argue that increased advertising, or increased exposure as a whole, would stimulate new interest in the activity, and therefore participation in gambling would increase. Therefore, an increase in advertising in an immature market is likely to lead to gambling participation increasing, because of the novelty of the activity and stimulated interest, but the potential for a mass increase in gambling-related harm would be moderate based on the Social Adaptation model (Shaffer et al., 2004). It is argued that after initial participation was stimulated through exposure, social adaptation would occur as individuals begin to experience negative consequences associated

with gambling and gradually become less involved with gambling, returning to pre-exposure levels (Binde, 2014; Shaffer et al., 2004). In conclusion, it is probable that the impact of advertising will differ between mature and immature gambling markets; however, it is also probable that even if more participation is stimulated initially, it is unlikely that it will lead to increased gambling-related harm across non-vulnerable populations.[15]

7.3.1 The Normalisation of Gambling through Advertising

One of the most prominent impacts of the implementation of the Gambling Act 2005 was the presentation of gambling as a viable, socially acceptable leisure activity. As a result of deregulation, gambling has become more readily available in the immediate environment and more prominent in media content, though barriers to participation still remain for those new to gambling. In order for the gambling market to expand in the UK in response to deregulation, the industry were required to engage in a process of legitimisation; namely, making the activity of gambling socially and culturally acceptable (Johnson, Dowd, Ridgeway, Cook & Massey, 2006). Humphreys (2010) argued that there were two further forms of legitimacy to be achieved in order to create growth in a new market after establishing regulatioryframeworks; normative and cultural-cognitive legitimacy. 'Normative legitimacy' refers specifically to the congruence between the product or activity and the social values within a community (Dowling & Pfeffer, 1975). In other words, ensuring that the activity does not violate any widely accepted beliefs within a community regarding what is considered to be tolerable behaviour. 'Cultural-cognitive legitimacy' extends further than normative legitimacy, because rather than the activity's being tolerated, with cultural-cognitive legitimacy the behaviour is considered to be adopted pre-consciously, and reinforced within one's individual schema through cultural processes and representations (Scott, 1995). This process occurs with the introduction of many technological advances in society such as the use of microwave ovens or cellular telephones; essentially, in the early stages individuals are tentative when adopting new technology, but as the product becomes highly prevalent in society the tentativeness dissipates.

Advertising will play a critical role in creating cultural-cognitive legitimacy for gambling within Great Britain, with the consistent representation of gambling as a leisure activity in the environment and via various media channels. Ostensibly, legitimacy is driven through a diffusion mechanism, therefore mass advertising and the growth in participation leading to diffusion through word of mouth will lead to activity adoption (Humphreys, 2010). In simple terms, repeated exposure to gambling through advertising is likely to increase social acceptance, and subsequently legitimise gambling as a leisure activity. Strang and Chang (1993) likened the process to a complex exercise in social construction, rather than simply widely disseminating information about the activity and anticipating an increase in adoption of the behaviour. It must be emphasised at this point that an increase in social acceptance and participation in gambling does not automatically precipitate an increase in gambling-related harm in non-vulnerable populations. It may be argued that the potential impact of

[15] In this instance 'non-vulnerable populations' refers specifically to adults that are not experiencing mental disorder.

advertising, as a catalyst in increasing social acceptance of gambling, on prevalence of gambling-related harm will be determined by the content of information being presented.

7.3.2 Positive Framing of Gambling via Advertising

One of the most prominent arenas where gambling is being normalised via cultural-cognitive legitimisation is through professional sports (McKelvey, 2004; Thomas, Lewis, Duong & McLeod, 2012). Turco (1999) argued that the prohibition of advertising revenue streams from tobacco created a commercial vacuum in professional sports which gambling advertising is gradually filling. According to Mullin, Hardy and Sutton (2000) by creating corporate relationships with professional sports franchises the gambling industry is aiming to positively influence public perception of gambling, and target it towards specific valuable market segments that are traditionally ardent sports consumers. Claussen and Miller (2001) propose that the sponsorship of professional sporting teams by the gambling industry is ultimately changing the perception of gambling from a vice to a socially acceptable leisure pursuit. Thomas et al. (2012) conducted a case study to assess the frequency and content of both broadcast and terrestrial advertising strategies on a single professional sport, and identified that there was a saturation of sporting advertisements at both the venue and in terms of broadcast marketing. Thomas et al. (2012) argued that various marketing techniques were employed to represent gambling as an intrinsic feature of professional sport and an inherent part of the fan experience, whilst also acknowledging no attempt to balance the positive messages and framing of gambling.

The alignment of betting marketing with professional sports is an obvious pairing given the overlap between the two activities, but there is evidence of other attempts to integrate gambling within other cultural domains. Dyall, Tse and Kingi (2009) highlighted that sponsorship of certain sporting events may result in targeting specific ethnic groups, and therefore may cause increased exposure of gambling advertisements to specific ethnic groups. Dyall et al. (2009) extend their concerns beyond sporting sponsorships, by outlining the active promotion of gambling to Maori groups through the integration of Maori cultural symbols within gambling products and venues. Dyall et al. (2009) argue that gambling advertising regulations and codes of practice must extend beyond concern for specific vulnerable populations such as problem gamblers and non-adults, and safeguard against over-exposure towards specific ethnic groups and the usage of cultural symbols or processes that may further legitimise gambling to that specific group.

Research indicates that gambling advertisements overtly present the activity as being a fun and entertaining leisure pursuit (McMullan & Miller, 2008; McMullan & Miller, 2010), and that gambling is routinely presented as a harmless activity (Monaghan, Derevensky & Sklar, 2008). Lee et al. (2008) proposed that gambling exposure via media, including advertisements, leads to positive attitudes towards gambling, which leads to intention to gamble. Unfortunately, the methodological design of this study is not presented comprehensively and is therefore lacking in the requisite transparency to critically evaluate the validity of such conclusions; there are immediately concerns with regard to the representativeness of the sample, given that a small sample of college students from one location, heavily weighted towards young females, was recruited. Despite the lack of valid empirical evidence of the causal relationship between positive gambling attitudes and behavioural intention, there is concern that content of the advertisements may create a distorted perception of the realities of gambling (Friend & Ladd, 2009).

7.3.3 Key Points

- The impact of an increase in advertising exposure will vary depending on other characteristics of the market such as market maturity.
- An increase in advertising exposure may lead to short-term increases in gambling participation but is unlikely to lead to a long-term increase in problem gambling.
- For advertising to increase the likelihood of participation in gambling, the content of such advertisements must present gambling as a legitimate and accepted social activity.
- Advertising often frames gambling in a positive light and provides legitimacy by pairing the activity with culturally relevant processes such as sporting events.
- The positive framing of gambling in advertising as a pleasurable leisure pursuit is rarely balanced with information regarding the negative consequences of gambling.

7.4 The Role of Advertising in Enabling Informed Choice

From a British perspective it is apparent that the CAP, BCAP and gambling industry advertising codes are effective in limiting the presentation of advertisements that may create erroneous perceptions about gambling involvement. For example, the British regulatory framework prohibits advertisements that represent gambling as an activity that will enhance personal attributes or provide success in various lifestyle goals such as wealth accumulation. Furthermore, gambling advertisements are prohibited from representing gambling as a behaviour that will lead to social inclusivity, or even be proposed as an integral part of personal development (i.e., *a rite of passage*). However, gambling advertising within Britain still overwhelmingly represents it as a positive, pleasurable form of entertainment, which may not be an entirely veracious representation.

From the British regulatory framework, and indeed cultural, perspective, gambling is accepted as a credible form of leisure and entertainment; therefore, this assumes the principle that gambling, at least in moderation, is not inherently harmful. From this socio-political perspective, the objective is not to minimise gambling but rather to present gambling as an activity that is intrinsically associated with risk, and an activity that requires a controlled and self-regulated response. Effectively, within the British context this means that rather than mass creation of upstream policies aiming to limit participation in general, such as advertising restrictions (as advocated by several academics: Korn & Shaffer,1999; Livingstone & Adams, 2010; Williams, West & Simpson, 2007), individuals are required to approach gambling as a choice (Blaszczynski, Ladouceur & Shaffer, 2004). However, in order for gambling to be framed as an individual choice, there is an obligation for other stakeholders, including the industry, to provide detailed and accurate information in a timely fashion that enables the individual to make a fully informed choice (Blaszczynski, 2010; Blaszczynski, Ladouceur & Shaffer, 2004).

With reference to the overwhelmingly positive presentation of gambling within advertisements, Friend and Ladd (2009) outlined that, although positive attitudes towards moderate gambling are not inherently problematic, an absence of public health messages with regard to the risks of gambling may lead to potential harms through distorted perceptions of gambling. Moreover, rather than there simply being an absence of information about the realities and risks of gambling, it may be that such public health messages are

disproportionately outweighed against the positive representation of gambling within advertisements as pleasurable entertainment (Friend & Ladd, 2009; Lee, Lemanski & Jun (2008).

In a Canadian context, McMullin and Miller (2010), via a content analysis of broadcast advertisements, observed that public health messages with respect to risks of gambling were presented in the majority of items, but that the messages were presented as peripheral, within the 'small print', and unlikely to be attended to by consumers. Within the British context, the gambling industry has also acknowledged the need to balance the positive representation of gambling within their advertising code, and recommended that members include a responsible gambling awareness message within marketing strategies. It was argued that in order to be effective there was a need to create a standardised message that all members can adopt in order to present a consistent message. In effect, the social responsibility message provided within advertisements is the web address of an independent source of information and advice about responsible gambling and contact information about where to seek help if one is experiencing gambling-related harm (www.gambleaware.co.uk). Whilst acknowledging the need to keep responsible gambling messages peripheral when attempting to advertise one's product and brand, which will often present the operator's own web address, it must be noted that the inconspicuous placement of the 'Gamble Aware' message means that it has a reasonable probability of being ignored by the consumer. Binde (2014) makes an argument for the use of eye-tracking research to evaluate the effectiveness of embedded responsible gambling messages in gambling advertisements in terms of attention paid to it by customers; however, there is no research currently available.

Moreover, there is an absence of evidence attempting to demonstrate the effectiveness of the Gamble Aware campaign as a harm minimisation strategy. In review of similar mass media responsible gambling awareness campaigns, Williams, West and Simpson (2012) identified that this approach would be relatively ineffective as a primary strategy to reduce problem gambling, because research has indicated that non-problem gamblers often did not pay attention to and retain the information. However, when making recommendations for best practice regarding educational awareness campaigns, Williams et al. (2012) proposed that it is possible that campaigns which have limited effectiveness in the short-term may produce some positive lifetime effects.

Because of the need to make responsible gambling awareness within gambling advertisements peripheral, since focusing attention towards the product and brand is the central objective of commercial marketing, it makes intuitive sense to consider the presentation of independent responsible gambling public health messages. However, it must be acknowledged that there is an absence of evidence that demonstrates the effectiveness of counter-advertising in reducing gambling-related harm. Regardless, it is apparent that there is an imperative need to both assess the effectiveness of the current Gamble Aware campaign, and to commence a research programme evaluating the potential impact of stand-alone responsible gambling public health messages, in order to counter-balance the overwhelmingly positive portrayal of gambling within advertisements.

7.4.1 Key Points

- From a cultural perspective, moderate gambling within Britain is a socially accepted leisure pursuit, therefore the presentation of gambling as such in advertisements is not seen as problematic.
- From a public health perspective, it is argued that in order to enable individuals to make fully informed choices, the presentation of the potentially harmful elements of gambling is required to balance the more positive perception of gambling as recreation
- Current embedding of responsible gambling messages as peripheral elements within British gambling advertising is likely to lead to the message being ineffective.

7.5 Impact of Exposure to Vulnerable Populations

With regard to the impact of advertising on gambling behaviour, there appears to be a consensus that the research approach should focus upon the impact on vulnerable groups, such as non-adult and problem gambler populations (Planzer & Wardle, 2011).

7.5.1 Impact of Gambling Advertisement Exposure on Non-Adults

As identified previously, the vast majority of advertisements present gambling as a credible, and socially acceptable, form of leisure and entertainment. Research has tentatively demonstrated a positive relationship between exposure to gambling advertisements and intention to gamble, and participation in gambling, in adolescent populations. Planzer and Wardle (2011) summarised the empirical research findings and theoretical propositions of the available literature as suggesting that adolescents are at risk of erroneous schema formation regarding gambling activities, based on the positive framing of gambling within advertisements. Monaghan, Derevensky and Sklar (2008) argued that adolescents who were exposed to gambling advertising were more likely to have intentions to gamble, and ultimately engage in gambling behaviour, as the advertising led to the normalisation of gambling as a harmless leisure activity. More specifically, it is argued that the central message being extracted from advertisements by adolescents is that gambling leads to winning money and fun (Monaghan et al., 2008). Planzer and Wardle (2011) appropriately raise concerns about the quality and validity of the literature used to develop such conclusions, and critically emphasise that participation in gambling may not be inherently harmful and does not equate to development of problem gambling.

In a further study, Derevensky, Sklar, Gupta and Messerlain (2010) concluded that the primary effect of advertising exposure on adolescent gambling attitudes and behaviour was that it reinforced and maintained already existing gambling schemata and behavioural patterns. Fundamentally, they observed that adolescents with higher levels of gambling-related harm were more readily able to recall the content of the advertisements, and more importantly that the advertisements would stimulate further gambling behaviour. However, with reference to the previously discussed methodological limitations of using self-report to measure the impact of advertising on behaviour, it is not possible to accept such a conclusion with any confidence. Ultimately, the handful of existing empirical studies of the impact of advertisements on gambling behaviour suggest a possible positive correlation because of the positive representation of gambling within advertisements creating erroneous and unrealistic gambling schemas (Derevensky et al., 2010; Fried, Teichman & Rahav, 2009; Monaghan et al.,

2008). However, before that theoretical proposition can be adopted, substantially more robust empirical evidence is required.

7.5.2 Impact of Gambling Advertisement Exposure on Problem Gamblers

Again, it must be acknowledged that there is a substantial lack of empirical evidence demonstrating the impact of advertising on individuals with a problem gambling disorder, and moreover, that the handful of existing studies have significant methodological limitations restricting the extent to which the research findings can be accepted.

Derevensky et al. (2010) proposed that adolescents that scored higher on measurements of gambling severity had more accurate recall of gambling advertisements, and that such advertisements would act as a trigger to stimulate further play. However, as discussed, the findings were dependent on self-report, and therefore cannot be accepted with any confidence. In an attempt to moderate the limitations of self-report data, Binde (2009) conducted an in-depth qualitative assessment of the role of advertising as a trigger to gamble for problem gamblers, enabling the capture of a more detailed understanding of the complex relationship between advertising, motivation and behaviour. Binde (2009), after interviewing 25 treatment-seeking problem gamblers about the impact of advertising on their gambling behaviour, proposed that the vast majority of participants felt that it had, at most, a marginal impact on behaviour. Most participants indicated that advertising may have moderately stimulated interest in a gambling activity, and might stimulate further involvement. However, 20% claimed that exposure to advertising created strong gambling impulses and led to deterioration in behavioural control with respect to gambling.

In addition to the immediate validity concerns regarding the use of subjective recall through self-report, given that the impact of advertising on behaviour is unlikely to be entirely conscious to the participant, Binde (2009) and Derevensky et al. (2010) both acknowledge that problem gamblers will be sensitive and aware of gambling advertisements, or indeed be in environments where gambling advertisements are more prevalent. In simple terms, one would expect a problem gambler to attend more to gambling advertisements, given its relevance and familiarity, in comparison to non-problem gamblers or non-gamblers in general. Therefore, future research designs exploring the impact of advertising on intention to gamble must control for the confounding variable that existing gamblers, and problem gamblers more so, will acknowledge and pay more attention to gambling advertisements than controls.

7.5.3 Key Points

- Although available research indicates that gambling advertisement exposure leads to increases in adolescent intention to gamble, the significant methodological limitations of the studies mean that such conclusions cannot currently be accepted with any confidence.
- The few existing studies indicate that gambling advertising is not a significant trigger to gamble excessively for problem gamblers; however, it is not possible to accept this finding with confidence because of significant methodological limitations.

7.6 The Impact of Social Media Marketing on Gambling Behaviour

Six years after the full implementation of the Gambling Act 2005, in an already mature gambling market, it is reasonable to propose the online gambling market within Britain is

approaching saturation. Luo, Chen, Ching and Liu (2011) contend that in a saturated market, operators will seek to shift away from traditional marketing and focus more upon creating an enhanced consumer experience in order to enable consumer retention. McCole (2004) specifies that whilst traditional marketing approaches focus on securing customer satisfaction and approval, modern marketing will seek to create an emotional attachment between the product or brand and the consumer. It is argued that consumer experiences that are personal, emotional, memorable and most importantly engaging are effective in shaping positive consumer attitudes and loyalty (Pine & Gilmore, 1998; Poulsson & Kale, 2004; Pullman & Gross, 2004).

Information technology and social media are becoming increasing utilised as marketing channels, in order to create consumer loyalty and retention, and even expansion in a saturated mature market, in a mechanism referred to as 'Virtual Experiential Marketing' (VEM: Luo et al., 2011). Essentially, VEM aims to use IT and social media to create an immersive experience for consumers by enriching the consumer's interaction with the operator, with the objective of creating a sense of membership and stimulating positive attitudes (Luo et al., 2011). Social media has been identified as an effective tool in customer relationship management as it enables the consumer to openly and rapidly interact with the operator and therefore provide immediate feedback (Yaakop & Hemsley-Brown, 2013). Furthermore, not only will engaging customers via social media create a sense of membership, but it can also enable operators to profile the customers within their database more efficiently with respect to their consumer needs and preferences (Chaffey, 2007; Yaakop & Hemsley-Brown, 2013).

Social media is likely to be an effective agent in normalising and providing legitimacy to gambling as a leisure activity. In fact, Foux (2006) argued that social media marketing is becoming increasing perceived as a more trustworthy source of product information than traditional broadcast advertisements. Positive attitude towards information represented within social media advertising is effective because it engages in a *pull marketing* process where consumers voluntarily choose to learn more about a product or brand (Chaffey, 2007; Shrum, Lowrey & Liu, 2009; Yaakop & Hemsley-Brown, 2013). As a result, emphasis in online advertising via social media is about creating an engaging message that consumers have an emotional reaction to and want to voluntarily explore further.

The value of the consumer's having an emotional engagement and desire to voluntarily continue association with a product is even further enhanced when considering the process of sharing information within social networks. It is argued that social media marketing aims to create engaging, often amusing, advertisements to encourage consumers to share the advertisement across their social network (Keller & Fay, 2012; Tripodi, 2011; Yaakop & Hemsley-Brown, 2013). By sharing the advertisement with one's social network the consumer is effectively engaging in diffusion and word of mouth advocacy, and therefore providing credibility and reducing mistrust for the brand (Chu & Kim, 2011; Keller & Fay, 2012). Essentially, in a market where there may be inherent mistrust of online operators, the value of peer endorsement of gambling by sharing advertising across social networks may be of particular significance with respect to activity engagement.

The presentation of engaging and peer-endorsed gambling advertisements within social media is unlikely to be intrinsically harmful; however, consideration must be given to the

exposure of this information to non-adult populations, and also the need to balance the positive representation of gambling. With respect to social media gambling marketing exposure to adolescents it is true that there are safeguards implemented restricting the sharing or provision of advertisements to an age group that is prohibited from gambling. However, a recent brief study conducted by the Advertising Standards Agency (2013) demonstrated that non-adults regularly inflated their age on social networking sites and as a result were consistently exposed to product marketing that was inappropriate for their age group, including gambling. It is clearly evident that social networking sites must focus on improving age verification systems so that operators are not inadvertently marketing gambling to children and adolescents.

In terms of impact of social media marketing on gambling behaviour, it would not be wise to assume that the mechanisms involved are only likely to lead to increased gambling-related harm. Certainly, when considering the ability to retrieve detailed profiles of consumer preferences through social media, and therefore deliver specifically tailored gambling promotions, it is possible that further gambling involvement may be encouraged. However, the enhanced customer relationships created through social media between not only consumer to operator, but also consumer to consumer, create further opportunities to promote responsible gambling messages and behaviour. The provision of instantaneous feedback via a heavily monitored social media interface enables consumers to rapidly identify themselves to the operator as experiencing gambling-related harm or requiring external assistance for problem gambling. Moreover, given the positive attitudes towards, and trustworthiness attributed to, information presented in social media marketing (Foux, 2006) and its effectiveness in word of mouth advocacy (Luo et al., 2011), it is probable that social media may be an effective tool in promoting responsible gambling awareness to select populations (e.g., adolescents). The importance of corporate social responsibility as a tool for brand differentiation in saturated markets is widely accepted (Kesavan, Bernacchim & Mascarenhas, 2013), and therefore gambling operators may seek to utilise social media as an effective tool in disseminating their responsible gambling strategies and attempts to enable genuine informed choice for potential consumers desiring to gamble.

7.6.1 Key Points

- Social media will play an increasingly important role in marketing approaches within Britain's mature saturated gambling market.
- Social media marketing is an effective tool to promote brand awareness and customer loyalty.
- Gambling marketing will increasingly aim to stimulate an emotional reaction within its advertising and promotional activities to encourage peer-to-peer sharing of information via social networks.
- Social media networks must improve their age verification procedures in order to restrict the presentation of gambling advertising and promotional activities from adolescents and children.

7.7 Impact of Promotional Marketing on Gambling Behaviour

Whilst advertising is the largest element within marketing, Planzer and Wardle (2011) argue that the impact of different marketing approaches to promote the brand or product, or

incentivise the consumption of a brand or product, is also an important area of research. It is argued that different marketing strategies, outside of generic advertising, will impact gambling attitudes and behaviour different across various groups in the population and that such relationships must be understood in order to inform policy (Planzer & Wardle, 2011).

7.7.1 Impact of Disproportionate Incentives on Gambling Behaviour

Similar to advertising, gambling promotional marketing via incentives or offers is regulated by a range of codes of practice. Primarily, one of the marketing conditions for gambling businesses operating within Britain set out in the Licence Conditions and Codes of Practice (LCCP) is that licensees should only offer incentives or reward schemes in which the benefit is proportionate to the type and level of the customer's gambling behaviour (Gambling Commission, 2011). Furthermore, it is stated in the LCCP that if the customer's expenditure or frequency exceeds the minimum requirement of the promotional incentive, then the individual should not receive an increased incentive or reward. However, if gambling behaviour significantly outweighs the proposed incentive, any increase must be, at most, proportional to the individual's level of participation. In simple terms, the code of practice aims to restrict the provision of offers and rewards that may encourage or reward excessive and potentially problematic participation.

In addition the CAP/BCAP guidelines clearly outline that operators must aim not to encourage gambling behaviour that is *socially irresponsible* or could lead to harm. As a result, gambling operators within Britain must be cautious that their provision of promotional marketing, which is fundamental to remaining competitive in a saturated market, does not reward excessive or disordered gambling behaviour. Despite the clearly delineated instruction, there is a lack of transparency regarding how such regulations and codes of practice are monitored and enforced beyond customers raising complaints. Furthermore, and perhaps more importantly, there is a lack of transparency with regard to how gambling operators can gauge legitimate and socially responsible levels of incentive and reward in relation to customer behaviour. It is argued that greater assistance should be provided for industry members who aim to provide socially responsible promotions and uphold the industry code of practice. The CAP/BCAP (2014) have recently provided an additional guidance note in terms of socially responsible gambling promotions; however, the fundamental issue of the practical approach in determining the 'fairness' and legitimacy of a promotion still remains.

There is a lack of peer-reviewed empirical evidence demonstrating the relationship between the provision of promotional incentives and disordered or excessive gambling. However, Narayanan and Manchanda (2012) attempted to demonstrate that marketing within a casino environment is disproportionately centred upon problem gamblers. It was proposed that the long-term impact of within-casino marketing was higher for problem gamblers; directly because increased incentives provided encouraging further participation, and indirectly through the impact of the consequences of increased participation (i.e., more losses). Narayanan and Manchada (2012) observed that the provision of 'comps' (complimentary bonuses awarded to customers for their participation) had a positive short-term increase in the duration of gambling and the amount risked, but that the effect dissipated relatively rapidly and did not exist long-term. However, for problem gamblers, not only was the impact of comps more than twice as large in comparison to non-problem gamblers, but the increase in participation would last longer than for non-problem gamblers. Although substantial replication is required before such conclusions can be accepted with any confidence, there is

scope to propose that problem gamblers may have increased vulnerability with respect to behavioural control when presented with promotional incentives.

From an online gambling perspective, there is scope to identify customers that gamble with more intensity in terms of frequency and expenditure level, similar to the aforementioned casino environment. In terms of online marketing and provision of promotional incentives, Jolley, Mizerski, Lee and Sadeque (2012) highlighted that permission based emails containing gambling promotional offers were positively received and stimulated retention and therefore further play and expenditure. 'Permission based' marketing relates to marketing where the customer or potential customer has agreed to receive promotional offers from a specific company, and as a result of providing permission, customers perceive the interactions more positively than interruption marketing. With specific reference to online gambling, it is often the requirement to provide one's email address when registering with a new site; imbedded within the registration process is a request for permission to send marketing material to that email account, normally set as an opt-out request. It could therefore be proposed that online gambling operators are likely to retain an effective method of presenting promotional incentives via permission based emails. Moreover, there is scope to tailor specific promotions to become more appealing or relevant to specific subgroups based on the customer profiles within the database. Ultimately, there is potential to focus promotional marketing offers on specific customer subgroups that are most likely to respond positively, and therefore it is argued that mechanisms should be established to determine that vulnerable subgroups are not disproportionately targeted as part of a marketing strategy.

7.7.2 Transparency of Promotional Offers

As discussed previously with reference to advertising, if gambling is to be conceptualised as a leisure activity to be engaged in as an individual choice, as proposed in the Reno Model (Blaszczynski et al., 2004), then it is fundamental that the individual is presented with all relevant information, in a timely fashion, in order to make an informed choice. The regulatory framework in Britain delineating codes of conduct in the provision of gambling promotions strongly safeguards the individual's capacity to make an informed decision to gamble by prohibiting the presentation of misleading offers, outlined within LCCP, CAP, BCAP and the Unfair Commercial Practices Directive (UCPD) guidelines. Effectively, the guidelines outline that promotions must not mislead customers about the potential benefits to be awarded, and must make reasonable attempts to remove any potential ambiguity about the nature and process of the promotional offer. The licensing conditions (LCCP) and BCAP/CAP guidelines confirm that operators are required to clearly outline the commitment required by the individual in order to redeem the promotional award, and that this information is to be readily accessible. Moreover, the BCAP/CAP guidelines expressly prohibit the use of complex rules in the redemption of promotional awards.

The primary concern identified within these regulatory frameworks for marketing is that promotions are conducted in a socially responsible manner that enables redemption and participation to be an informed choice. From even a superficial assessment of the promotional offers available from online gambling operators, it is reasonable to conclude that such offers may violate some of the regulatory guidelines. Fundamentally, whilst being presented as relatively uncomplicated rewards for casino or sportsbook patronage, such as the highly prevalent *100% sign up bonus*, when one inspects the rules for redemption within the terms and conditions it is evident that not only are the rules substantial but they are often

exceedingly complex. It is reasonable to conclude that it is unlikely that when initially presented with an offer that appears straightforward (e.g., *100% sign up bonus*) that the customer will read the full offer terms and conditions that sometimes can exceed 1000 words in total. Furthermore, there is concern that the language presented within the terms and conditions may not be readily understood by all populations.

It is acknowledged that within a saturated market it is imperative for gambling operators (online operators in particular) to engage in promotional marketing to increase market share, and moreover set strict regulations of bonus redemption to avoid manipulation by prospective customers. However, currently available gambling promotions appear to contravene the existing regulatory framework and codes of practice for marketing, limiting capacity for consumers to make rational informed gambling choices. Arguably, the current regulatory framework for socially responsible gambling marketing is ineffective in providing clear reference points to which gambling operators should adhere. It can be argued that it is insufficient to prohibit the use of complex terms and conditions, or misleading offers, or indeed disproportionate targeted marketing to specific populations, without the provision of clear benchmarks and examples of socially responsible practice. Furthermore, because of the lack of definite and categorical guidelines to adhere to, it will be exceedingly challenging to identify and address violations of the codes of practice and non-socially responsible practices.

7.7.3 Key Points

- Regulatory and voluntary codes prohibit the provision of incentives to stimulate, or reward, socially irresponsible gambling; however, clear guidelines on how gambling operators can achieve this are not provided.
- Explorative research tentatively indicates that problem gamblers are more likely to increase participation in response to promotional rewards than non-problem gamblers
- Permission based emails provide a mechanism to tailor promotional incentives to specific subgroups to increase the probability that an offer will be positively received.
- It is recommended that a monitoring system is introduced to proactively identify socially irresponsible promotions, rather than responding reactively when alerted via customer feedback.
- According to existing codes of practice, British operators must clearly and simply outline what is required from the customer to activate and redeem promotional rewards
- It is argued that current promotional incentives may be violating such guidelines by creating misleading promotions where the complex terms and conditions do not enable the customer to make informed gambling choices.
- The existing codes of practice do not provide clear guidance or benchmarks for British operators to observe when providing promotional rewards.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 FACILITATING AWARENESS: CONCLUSIONS AND RECOMMENDATIONS

8.1.1 Information Provision

Players who are most at risk are by nature less likely to value or use information that will assist them in making responsible behavioural decisions, because they have a predisposition to impulsivity. This suggests that the players who would benefit most from the provision of such information are also the least likely to use it. Fundamentally, this predilection for impulsive behaviour amongst at-risk players cannot be changed by harm minimisation strategies; rather it is likely to be an ongoing challenge with this particular player group.

In addition, evidence shows that even when the information is received and understood by the player often this does not have a measurable effect on player behaviour. Therefore, a critical challenge in facilitating awareness must be to motivate players to actively engage in self-regulation when gambling. Research indicates that factual and general information, such as return-to-player (RTP), is less likely to affect gambling attitudes and behaviour than information that is personally relevant. In order to motivate behavioural change information should be presented as a resource to assist individual decision-making in contrast to warnings or information that present gambling as potentially hazardous. Paternalistic information is likely to be perceived negatively and dismissed by the player, being seen either as challenging their personal autonomy or relevant only to players that are experiencing significant harm.

In order for the information to be positively received and utilised by the player, it should be framed as information to assist all players in making appropriate gambling decisions. In this regard, information most likely to affect behaviour will have specific personal content in relation to the player's recent behaviour such as their net expenditure or total time spent gambling. The information provided does not warn the player or propose what they should do, rather it simply provides the player with information that will assist in helping them in making informed gambling decisions. Naturally, the scope for providing personal behavioural information to each player will vary significantly across gambling activities.

In terms of applying these recommendations directly to gaming machines in Great Britain, it is argued that the technological sophistication of modern category B2 and B3 machines would make the provision of personal gambling information possible. The greatest challenge would be developing a system for identifying *a new session*, for the machine to commence data capture and the presentation of player-specific behavioural information to each new player. Clearly, the introduction of smart card technology would address this problem. However, there may be scope in the interim to create a mechanism for differentiating sessions on gaming machines. For example, it may be possible to create a mechanism where a staff member from behind the counter can initialise data capture. It is acknowledged that the staff member will often be too occupied with other tasks to vigilantly observe gambling machine patronage, and may miss brief sessions. However, it is proposed that the target group for such pop-up information messages are those that engage in longer sessions, therefore increasingly the likelihood that a staff member will have scope to initialise the data capture and provision of information. Without extensive piloting and detailed consideration of resources available in such gambling environments it is not possible to specify with any

confidence on how this can be achieved. The Responsible Gambling Trust has commissioned work in this area which is currently underway.[16]

8.1.2 Awareness and Intervention

It is evident that players regularly self-identify themselves as experiencing harm and being in need of assistance. However, it is proposed that in addition to providing assistance after the player in need has self-identified, attempts should be made to engage players with responsible and problem gambling guidance before this point, because the player often will only self-identify after they are experiencing significant harm. It is recommended that attempts are made to intervene before players reach such a point.

Whilst there is a lack of specific research on responsible gambling intervention by staff in Britain, international research demonstrates that staff are reluctant to intervene with customers suspected of experiencing harm because they feel they lack the requisite training to handle the situation skilfully, and furthermore because they feel uncertainty regarding the contexts in which they should intervene. It is proposed that sufficient responsible gambling intervention training, alongside a candid specification of staff responsibilities, would increase staff self-efficacy[17] in this context, and therefore increase the likelihood of staff intervening with players that appear to require assistance.

With regard to taking a more proactive approach to responsible and problem gambling guidance in the gambling environment, it was also observed in the international literature that players often do not self-identity because they lack awareness about what forms of assistance gambling staff may be able to offer. Collectively, there appears to be a general lack of awareness about how to minimise the possibility of experiencing harm (i.e., gambling responsibly) and where help is available if a player begins to experience harm at any stage. In response, consideration must be given to the provision of such information in population wide public health awareness campaigns, rather than simply focussing on what can be achieved within the gambling environment (e.g., through www.GambleAware.co.uk.)

In terms of applying this knowledge directly to gaming machine environments, it is proposed that there is an increased presence of responsible gambling information within the location. As identified in the previous section, information relating to responsible and problem gambling guidance which is on offer should not be framed paternalistically but rather to create general awareness across players to feel free to approach staff members for advice or assistance. In addition to existing responsible gambling awareness posters and pamphlets, other more dynamic media within the machine gambling environment could also be used to highlight available services. It is important to acknowledge that only a small percentage of customers will experience harm and it is important not to overtly saturate the environment with responsible gambling information. However, it is proposed that the middle ground could be achieved, with occasional responsible gambling information displays appearing on dynamic video screens and on gambling machines themselves during idle periods. Moreover,

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[16] This work is being carried out by NatCen and Featurespace Ltd.

[17] 'Self-efficacy' relates to the individual's personal evaluation of their capacity to address the situation successfully.

occasional brief announcements could be made across the audio system in-between racing commentary or in-store advertisements. Emphasis is placed on creating awareness, either visually or audibly, through positive statements highlighting resources available to all players, rather than being specifically directed at those experiencing harm.

8.2 Facilitating Control: Conclusions and Recommendations

8.2.1 Mandating Voluntary Pre-commitment

Policies designed to facilitate player control should focus on strategies that effectively assist players experiencing impaired control to (a) set limits on time and monetary expenditure within a session of play, and (b) restrict their ability to withdraw additional funds and transfer to other gaming machines or forms of gambling to continue play. The principle of proportionality should apply in determining which policies ought to be introduced; that is, a higher standard of evidence of effectiveness is required before costly interventions affecting the majority of players and revenue and taxation ought to be implemented. Accordingly, given the current state of knowledge and taking into account the complexities of a gambling environment as in Great Britain, the mandatory requirement for all gaming machines and regulated online gambling accounts to have pre-commitment facilities offering players the option of voluntarily setting time and monetary limits should be introduced. This would allow players experiencing difficulties controlling their expenditure a tool to limit their losses. It would also target recreational gamblers motivated to use these optional tools to manage their gambling budget. At the same time, a voluntary system would avoid the inconvenience and concerns imposed by a mandatory system, for example, privacy and tracking of gambling-related expenditure by third parties, replacing misplaced cards, card swapping and efforts to by-pass the system by players motivated to persist at their level of gambling, and compromising of principles of civil liberty (government interference in personal choices).

The last point is relevant within a cultural and philosophical context. Governments need to decide the point along a continuum between prohibition and total free market at which gambling should be regulated. Where gambling is considered by the government or public opinion to be an activity that is morally or inherently repugnant and/or of no social benefit, the notion of responsible gambling represents a contradiction in terms. From this moral standpoint, proponents would argue that efforts ought to be directed towards banning or at the very least restricting its availability. Governments and public opinion that hold the moral stance that gambling represents a recreational activity that individuals freely choose to engage in with knowledge of its risks are more likely to adopt less restrictive consumer protection and regulatory controls.

8.2.2 Restriction on Access to Additional Funds

In the context of a libertarian society such as the UK, a voluntary pre-commitment system allowing the option for motivated players to use its facilities while concomitantly restricting easy access to cash through ATMs and debit card loading of machines, and providing the player historical information on their expenditure, appears an acceptable compromise in light of the current available empirical research data. The option to limit access to cash might involve a range of strategies from removing ATMs from venues, to restricting daily withdrawals to certain amounts, removing capacities to use or placing limits on the usage and

amounts able to be deposited in debit cards, and players self-barring use of debit cards within venues.

8.3 Restricting Access: Conclusions and Recommendations

8.3.1 Self-Exclusion

The academic literature and 'conventional wisdom' regarding best practice in self-exclusion, while providing some insight, does have limits in its usefulness to the British context. The existing literature is limited in some combination of the following ways: it is based on a weak research design; it is situation-specific (e.g., relates to a particular product, sector or jurisdiction); is outdated; and evokes contradictory positions from different experts.

However, there is empirical support and/or consensus among experts regarding some important components to a self-exclusion programme. Indeed, these might be considered obvious by some, given their logical basis. Consistent with conclusions reached elsewhere (Gainsbury, 2013; Nowazki and Williams, 2002; Hing et al., 2014, Responsible Gambling Council, 2008) we suggest that in order improve effectiveness, self-exclusion protocols should:

1. Be actively but strategically promoted;
2. Be quick and simple to implement;
3. Be administered by staff with appropriate, up-to-date and regular training;
4. Attract sufficient investment in resources and technology to improve enforcement;
5. Have comprehensive rather than isolated coverage where feasible.

While there is evidence that those engaging in self-exclusion report improvement in wellbeing and reductions in gambling-related harm, to date there is no empirical evidence that this is necessarily a causal relationship. However, the principle itself is hard to oppose. If something is causing harm, then as a last resort it should probably be removed. For this reason we find compelling justification for continuing to explore the opportunities for connecting self-exclusion across venues and operators. This, in our view, represents a key priority for strengthening self-exclusion and harm minimisation more generally.

There is less empirical support or agreement regarding the optimal duration of an exclusion agreement, the partial application of exclusion to certain products or appropriate disincentives for breaching self-exclusion. That being said, flexibility and control in how harm minimisation measures are applied can only be a good thing and we think self-exclusion is no exception. It is seems the challenge here is not agreeing whether flexibility is laudable, but rather how it might best be achieved and agreeing whether outcomes merit required levels of investment in staffing, technology and administration. As for many of the priorities regarding self-exclusion, input from operators regarding feasibility and trialling technology will be important. Finally, contrary to policies in some jurisdictions, we find no compelling justification for operators to take a more active role in help-seeking beyond signposting.

8.3.2 Age Restriction

Age restrictions are important in minimising gambling-related harm. Regardless of whether early exposure is a risk factor for problem gambling, children and adolescents are unlikely to have the requisite competence to make financial decisions, particularly where payment and staking are not straightforward. However, while age verification should remain a key operational priority, the child's social environment must be taken into consideration to avoid

operational efforts being undermined. Age restriction not only relies on staff knowing their responsibilities, but also on their motivation and ability to comply. On this basis, training might include: giving staff feedback on positive and negative effects of their current compliance behaviour; outlining the legal basis for compliance and implications for failing to enforce age restrictions; and providing immediate mystery shopper feedback (which has been shown to be more impactful than delayed feedback).

8.4 Responsible Marketing: Conclusions and Recommendations

8.4.1 Traditional Forms of Advertising

It is widely accepted that advertising is only one of several environmental factors that affect gambling behaviour simultaneously, and for this reason, it is largely unrealistic to attempt to determine the specific impact of advertising on gambling-related harm. The impact of advertising is not likely be overt, therefore measurement through direct observation, experimentation or self-report will not be effective. It is probable that the impact of advertising will vary depending on other environmental contexts. It is concluded that longitudinal research that observes the impact of changes in regulation (where advertising is one component) on gambling behaviour and gambling-related harm over the long term is likely to be the most informative approach in terms of determining future policy.

It is noted that the gambling industry in Great Britain has been effective in creating upstream codes of practice regarding advertising, and marketing in general. However, it is argued that the codes of practice could be developed further in terms of the provision of either empirical or theoretical justification for the advocated standards, as this would provide further legitimacy for the code across stakeholders.

The limited available evidence suggests that because the gambling industry in Great Britain is a mature market, the direct impact of advertising on gambling-related harm is likely to be minimal. However, the literature does propose that prevalent advertising will lead to the normalisation of gambling as a socially acceptable leisure activity. Naturally, this does not necessarily mean that there will be an increase in gambling-related harm. Indeed, the critical element regarding the impact of advertising on gambling behaviour will be the content and framing of gambling within the advertisements. Content analysis of gambling advertising unsurprisingly concludes that gambling is overwhelmingly portrayed as a positive, enjoyable leisure activity. It is proposed that while this may be the case for the vast majority of individuals, that in order to enable genuine informed choice to gamble, the portrayal of gambling is balanced, and indicates that there is the potential for harm and that self-control is required to mitigate harm. In Great Britain, the majority of gambling advertisements make reference to responsible gambling guidelines, primarily Gamble Aware, but it is concluded that this message is likely to be dismissed in comparison to the predominantly positive portrayal of gambling elsewhere in the advertisement. As a result, it is proposed that attempts to balance the representation of gambling in advertising should be performed asynchronously rather than simultaneously.

8.4.2 Social Media Marketing

Research indicates the effectiveness of new forms of advertising via social media to engage with customers and create both experiences of credibility for the product and emotional engagement. New forms of gambling advertising can provoke a positive response for a

customer such as humour, and this in turn can stimulate the customer to share the advertisement with their social network. This form of peer-endorsement is likely to provide credibility for the product, and promote positive attitudes towards it. Given the ineffectiveness of social media networks to enforce age verification, there is potential that circulated gambling advertisements may appear on under-age social media accounts. Moreover, as previously mentioned, it is recommended that the positive portrayal of gambling within such advertisements should be asynchronously counterbalanced with information that indicates the potential to experience harm and therefore the need for social control when gambling. Given the effectiveness of social media marketing in creating emotional attachment with customers and the ability to rapidly interact with customers, there is scope to consider the potential use of such mechanisms to promote responsible gambling in terms of promoting responsible gambling features and enabling rapid self-identification when experiencing gambling-related harm.

8.4.3 Promotional Marketing

It is argued that in many cases the 'small print' i.e., the rules and regulations, of many gambling promotional offers, with specific reference to online formats, may be overly complex to the extent of being opaque. It is concluded that in order to encourage fully informed decision-making in gambling that attempts should be made, where possible, to reduce the complexity of the terms and conditions of gambling promotional offers.

8.5 General Conclusions and Recommendations

It has been mentioned throughout this report that there are significant methodological limitations of existing studies which limit potential insight that can be extracted to develop harm minimisation. These include some of our own studies. It is worth pointing out that such limitations are in some cases ethically bound. For example, if we take the issue of control groups, it would not normally be acceptable to prevent a problem gambler seeking help from using limiting setting features or self-exclusion purely to permit researchers to have a more robust experimental design. This needs further consideration.

However, there are some useful guidelines to bear in mind when planning research or evaluation studies around harm minimisation in gambling. Blaszczynski, Collins, Fong et al. (pp. 571-572, 2011) identify several important components for the empirical evaluation of any harm minimisation effort:

- The contribution of each intervention, where there are multiple, should be assessed;
- The sample should be sufficiently large to carry out appropriate statistical tests;
- Appropriate, measurable dependent variables are identified and used (e.g., reductions in problem gambling, changes in attitudes, increases in wellbeing, impact on overall commercial performance etc.);
- Including a control group to reduce the possibility that changes resulted from something other than the harm minimisation initiative;
- Follow-up measures are used to determine whether impact is temporary and;
- New learning, where valid and reliable, is widely disseminated including formats accessible to the widest range of stakeholders.

This report focussed primarily on the academic and theoretical, rather than the regulatory, legal and operational issues, and for this reason, represents only a partial contribution to harm

minimisation conundrums. Importantly, a particular harm minimisation approach may be theoretically appealing; however, if it is unworkable from a legal, operational or regulatory perspective, it becomes less relevant. An important next step is to consider and discuss the regulatory, legal and operational issues, and groups like the Industry Group for Responsible Gambling (IGRG) will play an important role. Additionally, operational and legal challenges to implementing promising harm minimisation protocols must be transparent, thoroughly explored and well-documented; otherwise, dismissals may appear evasive, and wrongly considered to indicate unwillingness.

It has been argued throughout this report that more efficient harm minimisation approaches should take precedence over less efficient harm minimisation approaches. However, it is also worth giving some consideration to the "shotgun approach" advocated by Williams et al., (2012a, p. 89): "*Multiple prongs within a comprehensive and prevention strategy are often synergistic, with overlapping initiatives reinforcing the message and power of individual components (Nation et al., 2003; Stockwell et al., 2005). The effect is analogous to a shotgun blast, where the effect of any individual pellet is negligible, but when combined with other pellets aimed at the same target, can collectively have a major impact."* What we take from this argument is that harm minimization strategies that are relatively inexpensive and not difficult to implement could be implemented even if there is no strong support for their effectiveness in isolation as they may be of value when implemented together with other strategies.

A fundamental area for improvement is the codes of practices covering harm minimisation. Whether guidelines are voluntary, mandatory for trade body membership or a regulatory requirement, more specificity is required. Such prescription is necessary regarding a) triggers for operator-based action, and b) specific details of the action that should be undertaken. Currently there is too much room for interpretation.

A longstanding source of frustration and even amusement in British public policy is the trend for researchers issuing the statement, sometimes viewed as self-serving, that 'more research is needed', particularly in the context of offering little new insight from their current investigation. However, that is indeed the situation in the case of harm minimisation in gambling. Despite the numerous drivers for more prescriptive, up-to-date guidelines for minimising gambling-related harm, there exists a dearth of reliable evidence. Operators and policy-makers have some difficult decisions to make. However, the basic position must be one of careful and strategic consideration of options rather than ineffectual placation under pressures of politics or public relations. In this report, we have attempted to give an assessment of what we do actually know, and the level of confidence we can have in such 'knowledge'. We finish by making some specific suggestions regarding priorities for harm minimisation research in Great Britain.

9 PRIORITIES FOR HARM MINIMISATION RESEARCH

As outlined in the introduction of this report, understanding how gambling-related harm can be identified, is an important component of, and in some cases a pre-requisite for, an effective harm minimisation strategy. Harm identification has not been considered in detail in this report as the Responsible Gambling Trust has commissioned a separate program of research to examine it. However, it is worth briefly stating here that research should be prioritised to

better understand what behaviours may be indicative of problem gambling and gambling-related harm, and also into how to improve accuracy of harm identification strategies in terms of both sensitivity and specificity. Such research is currently underway in Great Britain in relation to gaming machines and more is expected to follow which will likely include other types of gambling.

9.1 Facilitating Awareness: Priorities for Harm Minimisation Research

9.1.1 Machine Gambling Dynamic Messaging

It is prudent to commence experimental investigation of the impact of various forms of in-game dynamic messaging in terms of reduction of key indicators of harm. Although previous research suggests that personal behaviour messages are more effective than general responsible gambling messages, this has yet to be demonstrated in ecologically valid experimental research designs. Gambling machines, in equivalent environments (in terms of comparable economic and social environments), should be programmed with three messaging formats including general, personal and no-message conditions, and their effect of predetermined indicators of harm should be evaluated. Moreover, further experimental investigation is required to determine the most impactful frequency of messages in reducing harm without significantly detracting from perceived game enjoyment.

9.1.2 Gambling Staff Training and Self-Efficacy in Player Intervention

It is prudent to commence observational (survey) research to identify staff awareness and understanding of their responsibility with regard to interacting with players who either self-identify themselves as experiencing harm or are outwardly demonstrating distress in the gambling environment. Data should also be collected measuring the level of confidence staff have in player intervention in terms of training and skill set. This information will provide a clear indication of which staff responsible gambling training needs to be extended to, (if any), and in which areas further training is desired.

9.1.3 Player awareness of Operator Signposting

It is prudent to commence observational and longitudinal research into the impact of various strategies to increase player awareness about opportunities in the gambling environment to assist in responsible gambling, and opportunities to receive problem gambling guidance if required. The effect of promotion of responsible and problem gambling services available in the environment through video and idle gambling machine screens, alongside occasional audio announcements, on player awareness and usage of services could be compared to gambling environments where such services were not promoted in this way.

9.2 Restricting Access: Priorities for Harm Minimisation Research

9.2.1 Ongoing Assessment of the Feasibility of Collective Self-Exclusion

There is little disagreement that a more ‘joined-up’ approach regarding the coverage and enforcement of self-exclusion is the highest long-term priority for self-exclusion, and perhaps even for all forms of harm minimisation. At this stage, what is needed most is detailed consideration of the technological, operational and legal issues that will constrain or otherwise shape the potential range of solutions. This is likely to require ongoing consultation between stakeholders in the first instance, rather than traditional empirical research. Part of

this feasibility work should include operational trials in relation to potential technology solutions to explore possible challenges documented by Dragicevic and colleagues. Such trials should involve the participation of multiple UK-facing operators to test a solution over a reasonable timescale, allowing challenges to be examined in a systematic and controlled way. This remains a high priority.

9.2.2 Stakeholder Engagement on Balancing Impact and Resources

A key conclusion is that stakeholders require a better understanding of the potential costs and impacts of various harm minimisation initiatives in order to optimise policy-orientated decision-making. A relatively inexpensive and expedient option would involve surveys seeking both industry and player perspectives on more innovative approaches to self-exclusion (e.g., disentitlement options, product-specific exclusion). This could be used to identify the most promising areas to pilot some experimental research in order to obtain robust empirical evidence regarding costs and impact. It is also recommended that work commence identifying and trialling the most efficient approaches and technologies in detection. At the time of writing, trials examining the potential impact of facial recognition in detection and enforcement in the British gambling industry are underway.[18]Another component of this work could include survey work with self-excluders from various venues in Great Britain exploring 'post-implementation' behaviour, including continued gambling with other venues, different operators, different products or through different channels (remote versus land-based).

9.3 Responsible Marketing: Priorities for Harm Minimisation Research[19]

9.3.1 Impact of Embedded Responsible Gambling Messages

It is prudent to engage in an explorative study comparing the impact on player gambling intentions and attitudes to gambling of various advertising content. Primarily, this involves directly measuring to what extent customers attend to embedded responsible gambling messages (such as Gamble Aware) and how this affects gambling attitudes, in comparison to a condition where advertisements are displayed with no responsible gambling message, and finally a condition where participants see both an advertisement framing gambling positively and an additional advertisement promoting the importance of responsible gambling.

9.3.2 Use of Social Media to Promote Responsible Gambling Attitudes

It is prudent to commence exploration of using social media customer engagement as a mechanism for promoting responsible gambling. Given the credibility assigned to social media marketing and the customer attachment observed, it is probable that this would be an effective platform to occasionally encourage use of social responsibility player tools, and advertise the range of responsible gambling services that the operator can provide to customers who identify themselves as experiencing harm.

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[19] It is important to note that the RGT have recently published a more expansive discussion of the probable impacts of marketing in gambling (see Binde 2014). Binde (2014) has undertaken a more general and explorative evaluation of marketing in gambling whereas the current report has focussed specifically on marketing in relation to harm minimisation.

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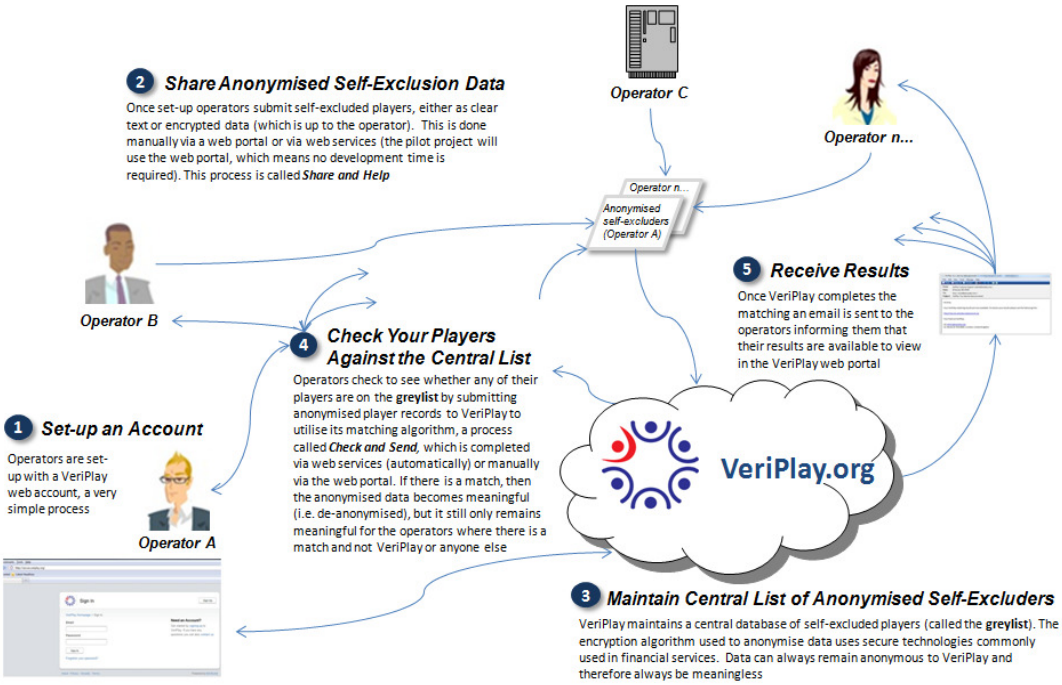
11 APPENDIX 1 – VERIPLAY: DATA AGGREGATOR EXAMPLE

Veriplay is an example of a data aggregator offered by BetBuddy (see www.betbuddy.com) and operates to support collective self-exclusion in the following way:



1. **Account Set-Up:** Operators are set up with a VeriPlay web account, a very simple process that is completed online.
2. **Share Anonymised Self-Exclusion Data:** Once set up, operators submit self-excluded players, either as clear text or encrypted data (which is up to the operator). This is completed via a web portal or via web services. Use of the web portal ensures that no technology integration work would be required. The process of submitting self-excluded players is called 'Share and Help'.
3. **Maintain Central List of Anonymised Self-Excluders:** VeriPlay maintains a central database of self-excluded players, called the 'greylist'. The encryption algorithm used to anonymise sensitive player data uses secure technologies commonly used in financial services. Data will always remain anonymous to VeriPlay and therefore will always be meaningless to anyone except the operators sending data and receiving results.
4. **Check Your Players Against the Central List**: Operators check to see whether any of their players are on the greylist by submitting anonymised player records to VeriPlay to utilise its matching algorithm, a process called 'Check and Send', which is completed via web services (automatically) or via the web portal. If there is a match, the anonymised data becomes meaningful (i.e., de-anonymised), but it still only

remains meaningful for the operators where there is a match and not for VeriPlay or anyone else.

5. **Receive Results:** Once VeriPlay completes the matching an email is sent to the operators informing them that their results are available to view in the VeriPlay web portal.

12 APPENDIX 2 – REGULATOR ACTIVITY AROUND HARM MINIMISATION

The following represents a personal communication with the Gambling Commission:

The government's triennial review of gaming machines stakes and prizes consultation was conducted amid growing public, political and media concern about the impact of high stake and prize gaming machines in accessible locations (in particular category B2 machines) upon local communities and problem gambling. The government concluded its consultation in 2013 but considered that there remained "a very serious case to answer in relation to the potential harm caused by B2 machines"[20]. It also expected the potential risks posed by gaming machines to be mitigated by the gambling industry through the development, trialling and evaluation of harm mitigation measures and strengthening of player protection.

It was within the context of this review that the Responsible Gambling Trust sought to commission independent research into Category B gaming machines with the aim of providing substantive knowledge to better describe, understand, identify and mitigate gambling-related harm in relation to gaming machine play. The Trust announced its revised research programme in 2014.

The Association of British Bookmakers (ABB) also responded to such concerns by publishing its code for responsible gambling and player protection in September 2013, its measures implemented from March 2014, and the government expects the betting industry to "carefully evaluate the effectiveness of those measures"[21]. The National Casino Forum published a statement of principles entitled 'Playing Safe' around the same time, in view of the government's expectation that the casino industry explores and delivers enhanced player protection.

In the context of sustained public concern, the Department for Culture, Media and Sport (DCMS), the Gambling Commission (the Commission) and the Responsible Gambling Strategy Board (RGSB) have continued to press the gambling industry to improve its player protection measures; to develop and trial measures that might improve harm mitigation for those who may be problem gamblers or at risk of developing problems.

The betting industry and Secretary of State for Culture, Media and Sport asked the Commission to consider toughening and mandating aspects of the ABB code and the Commission will consider, as part of its review of its Licence Conditions and Codes of Practice (LCCP), what elements of the Code could be introduced on a precautionary basis where there

[20] *Government response to Triennial review page 19*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249311/Government_Response_to_Consultation_on_Gaming_Machine_Stake_and_Prize_Limits_FINAL.docx.pdf
[21] *Government response to Triennial review page 20*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249311/Government_Response_to_Consultation_on_Gaming_Machine_Stake_and_Prize_Limits_FINAL.docx.pdf

is a good *a priori* case to do so, although the effectiveness of the ABB Code measures will need to be evaluated.

With mounting public and media focus on B2 gaming machines combined with the government's continuing concern and the exposure of gambling issues during the passage of the Remote Bill in Parliament, the Prime Minister announced a policy review of gambling which culminated in the publication of "Gambling Protection and Controls" in April 2014[22], outlining the government's intentions and initiatives in relation to gambling.

It is within this context that the Commission brought forward its review of LCCP social responsibility provisions, with a view to establishing where greater degrees of player protection or player monitoring may need to be mandated. It is therefore considering the case for improving measures in the areas of customer interaction and self-exclusion, along with stronger controls to prevent underage gambling and improving the quality of information provided to game players. After consultation and implementation of any measures, the Commission would expect the industry to provide evaluations of those measures over the subsequent couple of years, to assess their effectiveness.

[22] *https://www.gov.uk/government/news/gambling-protections-and-controls-published*