

The liberalisation of the lottery market in the Netherlands: A report on potential psychosocial impacts and how to minimise harm

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Executive Summary

The gambling industry in the Netherlands is about to change. Gambling policy will be modernised in three areas. First, online gambling will be regulated enabling gamblers to play more safely and responsibly with regulated/supervised providers. Second, the lottery and casino markets will be reformed with *Holland Casino* being privatised in 2018 / 2019, and lottery providers will be significantly increased and will be given more scope to innovate. Finally, 50% of every sold lottery ticket goes to charities / good causes, which already receive more than €580 million annually from lotteries. However it is expected that modernisation will not mean significantly money for the good causes. As a result, legislators, regulators, and the general public maintain a vested stake in an effective, profitable but safe gambling market.

The objectives of the new gambling policy to prevent gambling addiction, protect consumers, and combat fraud and other crime, will no longer be pursued by restricting the supply of gambling opportunities, but by tightening the requirements for providers' licences and strengthening enforcement by the Gaming Authority. These reforms mark a new chapter in the modernisation of gambling policy, which began with the Gaming Authority's establishment in 2012.

The Remote Betting and Gaming Bill aims to regulate online gambling and creates the basis for a licensing system that will enable Dutch people to gamble online safely and responsibly. It will impose strict requirements on online gambling providers, including measures to better protect players against gambling addiction. Licensed providers will be required to pay 29 % in tax on games of chance, and a contribution to Gaming Authority (this is applicable for all license holders). On the top of this licenced providers of online games, land based casino and amusement arcades will be required to the Gambling Addiction Fund. As to these (online, land based casinos and amusement arcades) high-risk games the Gaming Authority will create a central register that will temporarily exclude problem gamblers from these activities. In principal this will make it easier to identify problem gamblers and to assist them. The lottery system is deemed of important societal values, the government is therefore keen to provide scope to new initiatives with good causes lotteries starting in 2017, imposing strict requirements to ensure that this purpose is served.

The new policy rules stipulate that there will be no limitation in the number of licenses extended. Within the proposed framework there will be only land-based offline lotteries and no online lotteries. For the present five monopolies (State lottery, Lotto, Sport totalisator, Instant Lottery and the Totalisator) different policy options are being investigated. In making choices regarding the new market a number of policy options are being researched. The basic regulatory principles for the establishment of these lotteries incorporate general rules for consumer protection (advertising, commercials, and prevention/harm minimisation of problem gambling as well as stop and prevent criminality and illegal offer) and more specifically policy guidelines (Ministry of Security and Justice and specific license requirements set forth by the KSA [Gaming Authority]). It is anticipated that in 2018, the Law on Online Gambling will be in place and in this way, more 'risky games' will be similarly regulated. This seems not to be the case for lottery products as they



are considered to be much less harmful compared to other gambling products. It is therefore important to decide which lottery product can be more harmful .Instruments have been developed to check this.

Internationally, lotteries remain amongst the most popular form of gambling with millions of people participating. Part of the reason for its popularity is that it offers individuals an opportunity to win a sizable cash prize for a relatively low cost investment. Lottery tickets remain much more readily available and easily attainable than most other forms of gambling, with opportunities to purchase tickets in multiple land-based or online venues. While viewed as a safer form of gambling, it nevertheless has the potential to be played excessively. With the liberalization of gambling in general, and the lottery in particular, gambling has become normalized, resulting in governments imposing a duty of 'responsibility' on the operator. This has resulted in a diverse number of responsible gambling (RG) principles being developed to help minimize problems among potentially vulnerable individuals. It should also be noted that there is a body of research suggesting that lottery play may be a gateway for both further gambling and problem gambling for some individuals. Problem gambling is a progressive disorder that often begins in a benign way and escalates as a result of biopsychosocial (within individual), situational (within environment), and structural(within game) factors. This may be especially true of the growth of online gambling activities offered by lottery corporations, particularly in the area of interactive lottery games.

Given the legislative changes enacted in the Netherlands the following questions were raised:

(1) Which elements of the (good causes) lotteries are connected to risks for the consumer, in particular the potential risk of addiction? (see Chapter 2)

While a considerable amount of literature has suggested that game type or mode of gambling (e.g., land-based vs. online gambling) has been linked to problem/disordered gambling, other critical factors remain import in eliciting addictive behaviours such structural characteristics as event frequency and bet frequency, event duration, in-play gambling, and pay-out interval. These structural factors along with a host of biopsychosocial and environmental factors have been associated with game attractiveness and problem gambling. As such, it is important to examine each of these elements in new forms of lottery games. More specifically in some countries instant lotteries, scratch cards can cause harm, but research in the Netherlands shows no problems. As far as we know from research; High jackpots cause more gambling, but do not cause more problems.

(2) Will an increase in the number of lottery-operators and the expansion/broadening of the possibilities of games being offered, along with a greater number of lottery draws, advertising and commercials and (online) game concepts, lead to a higher risk of gambling problems for the player?(see Chapter 3)

As far as we know and research tells us, there is not a linear relationship between the number of lottery operators, number of games, and problem gambling. While increased availability and accessibility has been related to some forms of gambling (e.g., casino gambling, electronic machine gambling), the academic literature has not ascertained a similar relationship with the number of lottery operators and/or vendors. However, the relationship becomes more complex given the diversity of types of lottery products offered online. This is not the case in the Netherlands as lotteries are not allowed to be offered



online. Scratch cards are not allowed to be offered online and interactive lotteries are also not allowed. However further complicating could be the important role advertising of products may have.

(3) If there is a higher risk for gambling-related problems, is the present 'light regime' to prevent risks for the consumer sufficient to maintain the risk at the same level as before opening the market? (see Chapter 4)

There is empirical research suggesting that the prevalence rates of problem gambling in the Netherlands is relatively low. In spite of the fact that 87% of Dutch inhabitants are reported to have gambled, among 16+ year olds, only 0.3% are reported to have past year SOGS scores in the problem gambling range (Goudriaan, de Bruin & Koeter, 2009). However, it should be noted that the authors caution in interpreting the prevalence rates due to a low response rate. Whether the 'light responsible gambling regime' remains sufficient will be highly dependent upon the structural characteristics of new games and initiatives being developed. As such we have noted important factors to be considered and possible strategies to minimize any potential harms. Still further, we have suggested several tools that can aid in the development of socially responsible online and scratch card games (e.g., GAM-GaRD 3.0 and ASTERIG) as well as recommending establishing an international advisory panel to augment the regulatory body.

(4) If not, which measures are considered to be most effective to limit this risk based on scientific research or internationally associated best practices? (see Chapter 5)

There currently exist numerous measures and initiatives concerning promoting responsible gambling, player protection, and harm minimisation. Such strategies include providing information to facilitate informed choice, information to clients about strategies to help them stay in control, information about problem gambling, elimination of incentives to re-gamble winnings, responsible gambling messaging, self-exclusion programs, and the provision of supplying support services for individuals requiring help. Other important issues include the possibility for establishing money and time limits, mandatory game breaks, rigorous age verification procedures, provisions for including one's betting history, along with normative feedback data, and the use of pop-up messaging, all for online offerings. In addition, there remains an important need for socially responsible marketing and staff training.

(5) With the introduction of online lotteries, and as a follow up to Question 3, are there adequate available methods to assess and measure consumer risks associated with lottery products?(see Chapter 6)

There currently exists two widely used responsible gambling tools designed to assess the riskiness of various lottery and online products (i.e., ASTERIG and GAM-GaRD 3.0). Both tools have face validity and have been created and vetted by international experts in the field of responsible gambling. The GAM-GaRD protocols have been adjusted to account for more online gambling offers and has more refined categories for placing products at risk. The use of such tools and procedures can help game developers and regulators better understand the features of games that may increase or decrease the potential risks for addictive behaviours and are highly recommended.



Summary and recommendations

Merely increasing the availability and accessibility of lottery outlets is not going to be the key determinant in addressing problem gambling in the Netherlands. Rather, lottery operators will need to be cognizant of the attributes of the new games which may place vulnerable players at risk for excessive gambling and develop effective Responsible Gambling policies. The following recommendations are made for licensed operators:

- A senior member of the executive team for each operator should assume the position as coordinator of Responsible Gambling.
- All staff should have, at minimum, some level of training in problem gambling, with senior management receiving more intensive training.
- Operators should be mandated to adopt a valid and reliable system for screening all new products to ensure all games meet socially responsible standards.
- Advertising of lottery products must meet socially responsible standards.
- Each operator should have a written set of guidelines addressing their Responsible Gambling Program. This program should be reviewed annually and be subject to review by the Gaming Authority.
- Operators should develop policies addressing stakeholder engagement, retailer training, player education, treatment referrals, responsible advertising and marketing communications programs, enforcement of age prohibitions, and self-exclusion programs.
- Operators should be encouraged to consult with authorities in the field of Responsible Gambling in the development of their social responsibility/player protection policies (such policies have been developed by the *European Lottery Association, World Lottery Association,* and the *Global Gambling Guidance Group*(G4) among others).
- Online operations should incorporate player protection tools that provide the public with accurate and balanced information to enable informed choices, opportunities for time and money limits, cool-off periods, and self-exclusion opportunities.
- Operators should develop responsible gaming policies consistent with those established by the *European Lottery Association* and *World Lottery Association*, and/or other Responsible Gambling standards.



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1. Chapter 1

1.1 Introduction and background

This report has been compiled in relation to the situation in the Netherlands where there will be no limitation in the near future in the number of licenses extended for 'good causes lotteries' and whereby the monopolies of the *Staatsloterij* (State lottery) and the *Lotto* (together presently *De Nationale Loterij*) will be replaced by several lotteries with associated by-products. Within the proposed framework, there will be both land-based offline lotteries as well as online lotteries. The basic regulatory principles for the establishment of these lotteries incorporate general rules for consumer protection (advertising, commercials and prevention/harm minimisation of problem gambling), and more specifically policy guidelines established by the Ministry of Security and Justice and specific license requirements set forth by the KSA [Gaming Authority].It is anticipated that by the end of 2017, the Law on Online Gambling will be in place and in this way, more 'risky games' will be similarly regulated.

Internationally, lotteries remain amongst the most popular form of gambling with millions of people participating (Barnes, Welte, Tidwell & Hoffman, 2011; Burns, Gillett, Rubenstein & Gentry, 1990; RGC Centre for the Advancement of Best Practices, 2012; Welte, Barnes, Tidwell, Hoffman & Wieczorek, 2015). Part of the reason for its popularity is that they offer individuals an opportunity to win a sizable cash prize for a relatively low cost investment. Lottery tickets remain much more readily available and easily attainable than most other forms of gambling, with opportunities to purchase tickets in multiple venues. Although the lottery has been typically viewed as among the less risky types of gambling, it nevertheless has the potential to be played in an unsafe manner. With the liberalization of gambling in general, and the lottery in particular, gambling has become normalized. As a result, numerous countries have imposed a duty of 'responsibility' on the operators. This has resulted in a diverse number of responsible gaming principles being developed to help minimize problems among vulnerable individuals (Derevensky, 2012).

This report does not attempt to address all aspects of lottery playing behaviour nor problem/pathological/disordered gambling, but rather addresses the following specific questions:

- Which elements of the (good causes) lotteries are connected to risks for the consumer, in particular the potential risk of addiction? (see Chapter 2)
- 2 Will an increase in the number of lottery-operators and the expansion/broadening of the possibilities of games being offered, along with a greater number of lottery draws, advertising and commercials and (online) game concepts, lead to a higher risk of gambling problems for the player?(see Chapter 3)
- 3 If there is a higher risk for gambling-related problems, is the present 'light regime' to prevent risks for the consumer sufficient to maintain the risk at the same level as before opening the market?(see Chapter 4)
- 4 If not, which measures are considered to be most effective to limit this risk based on scientific research or internationally associated best practices? (see Chapter 5)
- 5 With the introduction of online lotteries, and as a follow up to Question 3, are there



adequate available methods to assess and measure consumer risks associated with lottery products?(see Chapter 6)

2. Chapter 2

Which elements of the (good causes) lotteries are connected to risks for the consumer, in particular risks of addiction?

Although the vast majority of adults occasionally gamble for fun, recreation, and pleasure without experiencing significant gambling problems, gambling brings with it inherent risks of personal and social harm. Problem and pathological gambling can negatively impact significant areas of a person's life, including their physical and mental health, employment, finances and interpersonal relationships (e.g., family members, financial dependants) (Griffiths, 2004; Petry, 2005; Productivity Commission, 2010). Furthermore, there are significant co-morbidities with problem gambling, including heightened depression, anxiety, alcoholism, and obsessive-compulsive behaviours (Desai & Potenza, 2008; Petry, Stinson, & Grant, 2005; Shead, Derevensky, & Gupta, 2010). These co-morbidities may exacerbate, or be exacerbated by problem and pathological gambling. The availability and accessibility of opportunities to gamble and the incidence of problem gambling within a community are also known to be linked (Abbott, 2007; National Research Council, 1999; Pearce, Mason, & Hiscock, 2008; Productivity Commission, 2010; Ste-Pierre, Walker, Derevensky & Gupta, 2014).

Anyone coming into the gambling studies field from a psychological perspective would probably conclude from reading the literature that problem gambling and pathological gambling are associated with particular game types. More specifically, there appears to be a line of thinking in the gambling studies field that casino-type games (and particularly slot machines/electronic gambling machines) are more likely to be associated with problem gambling than lottery-type games (Griffiths, 1994; Meyer, Hayer & Griffiths, 2009; Schull, 2012).

However, when it comes to problem gambling, specific game-type may be less relevant as the most critical and important factors, along with individual susceptibility (individual risk factors and motivations are not discussed here and are beyond this report's remit), are the structural characteristics relating to the speed and frequency of the game (and more specifically event frequency, bet frequency, event duration, stake/bet size, jackpot size, and pay-out interval) rather than the type of game *per se*. Researchers, policymakers, and regulatory agencies need to focus upon game parameters rather than merely the type of game when examining the association between game type and problem and pathological gambling. Internationally, lottery corporations have begun to focus on these structural components thought to negatively impact individuals (Blanco, Blaszczynski, Clement, Derevensky, Goudriaan, Hodges, van Holst, Ibanez, Martins, Moersen, Molinaro, Parke, Peren, Petry & Wardle, 2013; Griffiths, Wood & Parke, 2009). A brief description of the essential structural characteristics is warranted.

2.1 Event frequency and bet frequency.

Griffiths (1993) and Parke and Griffiths (2007) have noted that event frequency refers to the number of events that are available for betting/gambling within any given time period. For example, a lottery draw may occur once a week while a slot machine may allow (for example) 10 to 20 chances



to gamble in one minute. Using this example, slot machine gambling has a significantly higher event frequency than lottery gambling. In contrast, bet frequency refers to the number of bets or wagers placed in any given time period. Using lottery playing as example, Parke and Griffiths (2007) note that purchasing multiple tickets (e.g., 10 tickets simultaneously) can usually be done as frequently as desired before any single lottery draw. In this instance, bet frequency for a weekly draw would be equal to 10 but event frequency would be equal to 1. As a result, event frequency can often be much lower than bet frequency. As such, it is possible for players to spend more than they can afford even with a low event frequency.

Parke and Griffiths (2007) have argued that further empirical research is needed to better understand the relationship between event frequency and bet frequency as researchers often assume that event frequency and bet frequency have a strong relationship (i.e., the higher number of betting/gambling events – the higher the frequency of betting/gambling). However, this may not be the case. As Parke and Griffiths (2007) have noted:

"Although, players can place many bets on just one gambling event, the outcome of this event can influence future betting activity. By outcomes, we are essentially referring to winning or losing. Losing can often create financial and emotional motivation to continue betting i.e. chasing...It could be speculated that the satisfaction from winning may reduce motivation for further betting in the short-term, or it may increase betting as a result of increased bankroll, illusions of control and/or cognitive biases. Therefore, a higher event frequency not only offers more opportunity and choice for betting, but also affects motivation for betting through revealing consequential wins and losses at the end of each event" (p.226).

2.2 Event duration

Another important gaming parameter is event duration; the speed from wagering to the outcome (e.g., a reel spin on a slot machine might last three seconds) (Parke & Griffiths, 2006; 2007). Here, it is important to note that duration of the betting/gambling event is different from event frequency (although they may be inextricably linked in so much as the length of a betting event will obviously limit the frequency with which they can take place). As Parke and Griffiths (2007) note, a betting event lasting two hours (e.g., a soccer game) could not have an event frequency greater than one in any 2-hour period but could have a betting frequency of over 100 with the advent of in-play betting (Griffiths, 2012a; Lopez-Gonzalez & Griffiths, 2016).

In-play betting and gambling refers to the wagering on an event that has started but has not yet finished. As a result, gamblers can continue to bet on an event (e.g., a soccer or cricket match) and perhaps more importantly, adapt their bets according to how the event is progressing. For instance, in the UK, during the playing of almost any soccer match, a gambler can bet on everything from who is going to score the first goal, what the score will be after 30 minutes of play, how many yellow cards will be given during the game, and/or in what minute of the second half will the first free kick be awarded (Griffiths, 2012a). What the 'in-play' gambling activities have done is take what was traditionally a discontinuous form of gambling – where a gambler can make one bet every weekend on the result of the game – to one where a player can gamble continuously again and again (Griffiths, 2012a). In short, the same game has been turned from what was a low event frequency gambling activity into a potentially high frequency one (and gone from an activity that had little association with problem gambling to one where problem gambling is far more likely among excessive in-play gamblers). Within lotteries, games are typically offered intermittently with the exception of lottery scratch tickets, where multiple games may be played simultaneously and where individuals can purchase multiple tickets.



2.3 Event duration and in-play gambling

Parke and Griffiths (2007) speculated that in-play betting has the potential to contribute to excessive, prolonged, unplanned, problem and/or pathological betting and gambling as a result of: (i) within-session chasing on the same event or series of events (for example, an individual may make an incorrect bet selection, but then choose to recoup past losses by placing more bets on the same game); (ii) an increase in perceived skill (through watching, analysing or even attending a betting event); and (iii) simply making sporting events more exciting and/or interesting.

2.4 Pay-out interval/rate

Parke and Griffiths (2007) also noted another important and related structural characteristic concerns the pay-out interval. This represents the time between the end of the betting event (i.e., the outcome of the gamble) and the potential winning payment. The frequency of playing when linked with two other factors – the result of the wager (win or loss) and the actual time until winnings are received – exploits the psychological principles of learning. This process of operant conditioning results in conditioning habits by rewarding (i.e., reinforcing) behaviour (i.e., through presentation of a reward such as money). To produce high rates of response, those schedules of reinforcement which present rewards intermittently (random and variable ratio schedules) have shown to be most effective (Skinner, 1953). Yet, it is important to note that in spite of astronomically high odds of winning large lottery prizes (e.g., Euromillions, Powerball), individuals continue to persist at purchasing these tickets. Griffiths and Wood (2001) argued that if there were no huge prizes, few people would play. In Canada, the cost of lottery tickets for the 6/49 (a twice weekly draw) was recently doubled (from \$1 to \$2) with the prize level also being doubled. This resulted in a dramatic increase in lottery ticket purchases. "Rollover" weeks, where no prizes are awarded and subsequently the jackpot increased, were found to have even greater sales.

Since a number of gambling activities (most notably slot machines) operate on random and variable ratio schedules it is not surprising that excessive gambling can result. Cornish (1978) noted that gaming operators appear to acknowledge the need to pay out winnings as quickly as possible thus indicating that receiving winnings is seen by the gaming industry to act as a reinforcement to winners, thus prompting continued gambling. Rapid event frequency and short event duration also suggests that the loss period is brief with little time given over to financial considerations and, more importantly, winnings can be re-gambled almost immediately (Parke & Griffiths, 2007). Games that offer a fast, arousing span of play, frequent wins, and the opportunity for rapid replay are those most associated with problem and pathological gambling (Griffiths, 2008). These parameters are structural and could theoretically be introduced into any gambling game. However, these structural characteristics alone do not always lead to habitual and/or addictive behaviour. For instance, scratch cards have a potentially high event frequency, and a short gap between gambling and finding out the result of the gamble (Griffiths, 2000), but have a relatively low addictive potential (DeFuentes-Merillas et al., 2003). Therefore, other structural characteristics may be important such as when the person actually receives the winning payment, which is not always immediate as scratch card players often play the game at a different place to where they were originally bought, resulting in the pay-out interval being minutes, hours, or even days.

Clearly, money is a reward (it should be noted that enjoyment and excitement are also rewarding properties). However, while gamblers may win in the short run, the vast majority of gamblers will eventually lose over time. It has also been pointed out that another potential reinforcement is activation – 'the thrill of gambling' (Lea, Tarpy & Webley, 1987), and that this could play a role in



all gambling situations. It may also play a role in mood modification and regulation. As Griffiths (1999a) has noted:

"There are also social rewards (e.g. raising of self-esteem, peer praise, social meaning of the activity, rites of passage, etc.). Further to this, Dickerson (1984) notes that there are multiple stimuli which can be perceived to be rewarding in gambling settings. Events such as the pre-race and race sequence at the race track, the spinning roulette wheel and the placing of bets can be reinforcing because they produce excitement, arousal and tension" (p.441).

The issue of how money won affects subsequent behavior, although seemingly simple, is in fact quite complex. This is because other determinants are also important such as when the wins took place within individual gambling sessions and where in the life cycle of the gambler's career the win or wins took place. For instance, there is considerable evidence that 'big wins' early in a gambler's playing career can be a potential risk factor in the development of problem gambling(Derevensky, 2012). Interestingly, in *Casino 2000* in Luxembourg, as part of the Responsible Gaming strategy there is an RG interview after a big win.

In a pilot study, using undergraduate students, Crewe-Brown, Blaszczynski and Russell (2014) sought to understand the impact of prize level on gambling behavior. Participants completed a series of gambling vignettes designed to elicit information on reported debt size in relationship to prize level, where prize levels were varied. Their results suggest that as prize levels increase so too does the amount of money wagered, with money being a primary motivation for gambling. Their findings were consistent with other studies (e.g., Wulfert et al., 2008) that the magnitude of the prize influences subjective excitement and arousal when gambling. Thus, if the motivation of a problem gambler (although not tested in this study) is to increase one's level of arousal and excitement, then prize level can be a motivating factor for continuous play, with individuals typically increasing their size of wager. This need for arousal among problem gamblers and pathological gamblers was identified by Jacobs(1986) in his Theory of Addictions). Crewe-Brown et al. concluded that restricting the size of the jackpot and general prize levels may be one responsible gambling strategy to reduce motivations to gamble. They further suggested that their results support cognitive explanations of gambling that highlight the importance of prize in the development and maintenance of gambling pathology. However, as Parke and Parke (2013) indicated, game parameters do not operate in isolation.

There is also recent biological evidence of the potential reward value of gambling itself during the betting and anticipation phase of gambling. For instance, a number of neuroimaging studies of the brain have shown that the expectation and anticipation of a potential win, risky bets, and gambling itself are rewarding for individuals and in particular for problem gamblers (Miedl, Peters & Büchel, 2012; Power, Goodyear, Crockford, 2012; van Holst, Veltman, & Büchel, 2012).

2.5 The irrelevance of game type

The following two examples highlight the irrelevancy of game type and demonstrate that the structural characteristics rather than the game type that is critical in the acquisition, development and maintenance of problem and pathological gambling for vulnerable and/or susceptible individuals. A 'safe' slot machine could be designed in which no-one would ever develop a gambling problem. The simplest way to do this would be to ensure that whoever was playing the machine could not press the 'play button' or pull the lever on the slot machine more than once a week. An enforced structural characteristic of an event frequency of once a week would almost



guarantee that players would not develop a gambling problem. Alternatively, a problematic form of lottery could be designed where instead of the draw taking place weekly, bi-weekly or daily, it would be designed to take place once every few minutes. Such an example is not hypothetical and resembles lottery games that already exist in the form of rapid-draw lottery type games like keno and *Rapido* in France and Switzerland, and *Zubito* in Luxembourg.

Additionally, a recent study examining types of gambling and level of gambling involvement (using data from the 2007 British Gambling Prevalence Survey) indicated that when level of gambling is accounted for, no specific type of gambling was associated anymore with disordered gambling, and that level of involvement in gambling better characterizes problem gambling (LaPlante, Nelson, LaBrie & Shaffer, 2011).

In summary, the frequency of opportunities to gamble (i.e., event frequency), when combined with other speed and frequency structural characteristics, appears to be a major contributory factor in the development of gambling problems and gambling pathology (Griffiths, 2008). The general rule is that the higher the event frequency, the more likely it is that the gambling activity will result in potential problems for the individual (particularly if the individual is susceptible and vulnerable). Problem and pathological gambling are essentially about rewards, the reward schedules – the speed and frequency of those rewards. Almost any game could be designed to either have high event frequencies or low event frequencies. Therefore, the more potential rewards there are, the more problematic and potentially addictive an activity is likely to be and this is irrespective of game type event durations. Given the time, money and resources, a vast majority of gambling activities result in 'continuous' play in that individuals have the potential to repeatedly gamble. Such factors are thought to contribute to the acquisition, development, and maintenance of problem and pathological gambling.

3. Chapter 3

3.1 Will an increase in the number of lottery-operators and the expansion/broadening of the possibilities of games being offered, and with this a greater number of draws, advertising and commercials and (online) game concepts, lead to a higher risk for the player?

In answering this question, there are a number of identifiable factors to consider, the most important being the (i) increased availability, accessibility, and opportunities to gamble (3.1), (ii) impact of gambling advertising on individuals (3.2), and (iii) the psychosocial impact of online versus offline gambling (3.3).

3.2 Increased accessibility and opportunity to gamble

The increase in availability and accessibility of multiple forms of gambling internationally has prompted researchers to examine the impact of gambling expansion upon the prevalence rates of problem gambling (e.g., Derevensky, St-Pierre, Walker & Gupta, 2013; St-Pierre, Walker, Derevensky& Gupta, 2014; Vasiliadis, Jackson, Christensen & Francis, 2013). While there is a growing body of evidence examining the interaction between increased accessibility and gambling problems, the relationship remains somewhat unclear with multiple methodological problems existing (Abbot, 2007).



Kalke and Buth (2011) contend that there appear to be three primary hypotheses with respect to understanding the relationship between availability and problem gambling problems:

- Availability hypothesis: An expansion of gambling services brings a delayed increase in associated gambling-related problems (e.g., Orford, 2011; Storer et al., 2009). However, there have been multiple examples where the incidence of problem gambling has not escalated in spite of increased availability and accessibility (Volberg et al., 2010).
- Adaptation hypothesis: Populations will eventually adapt to the increased availability of gambling, new forms of gambling and the associated risks. This is explained by social learning processes. Accordingly, individuals gradually adjust and ultimately become more resistant to new and novel gambling opportunities. After an initial surge in gambling and an initial rise in problem gambling, the population as a whole adapts and prevalence rates return to normal (e.g., LaPlante & Shaffer, 2007).
- Saturation hypothesis: In some ways similar to the adaptation hypothesis, the relationship between supply, density, and the resulting problems are not linear. Some forms of gambling may result in higher prevalence rates of gambling problems than others but may plateau as the saturation of gambling opportunities exceeds the number of players (some U.S. states are witnessing closures of casinos) (e.g., LaPlante & Shaffer, 2007).

Abbott, Volberg, Bellringer and Reith (2004) note that empirical investigation of relationships between proposed risk factors and outcomes requires accurate and reliable measurement coupled with methodologically robust studies in which exposure levels are varied while other factors that may affect outcomes are held constant or controlled for statistically. If this is not achieved, Abbott et al. note that findings and conclusions may be invalid and/or misleading. With most addictions, different parameters of exposure are typically examined including dose, potency and duration. In the gambling situation, it is much more difficult to quantify social and behavioural exposures. Furthermore, practical and ethical considerations place constraints on experimental investigation. Gambling research is at a relatively early stage of development and it is only recently that public health approaches have been incorporated.

In the future, it is likely that more complex measures of gambling exposure will be used while controlling for multiple variables (Ste-Pierre et al., 2014). According to Abbott and colleagues (2004), this could include the availability of, and expenditure on, different forms of gambling, the dispersal of and degree of accessibility to these forms, the time they have been available, and extent to which harm minimization strategies have been prescribed and implemented. The Australian Productivity Commission (1999) developed a multidimensional framework to assess exposure. It highlighted nine specific dimensions comprising:

- Number of opportunities to gamble
- Number of venues
- Location of venues
- Opportunities to gamble per venue
- Opening hours
- Conditions of entry
- Ease of use of gambling form



- Initial outlay required
- Social accessibility

Using these criteria, the Australian Productivity Commission (1999), performed several analyses to examine the relationships between accessibility and gambling using State-level electronic gaming machine (EGM) density and expenditure data as well as data drawn from a national Australian gambling prevalence survey. The results suggested that high levels of problem gambling with gambling machines were correlated to their density relative to the size of the population. In one analysis, the pathological gambling prevalence rate for different Australian States was plotted against the number of gaming machines per 1,000 adults in each State. In another analysis, the number of gaming machines per 1,000 adults was plotted against the estimated amount spent per capita on gaming machines. Both analyses showed positive relationships suggesting that (at a State level) a greater density of gaming machines per capita was associated with both higher per capita expenditure and higher problem gambling prevalence rates.

However, it should be noted that although several other studies have shown that a higher density of video lottery terminals (VLTs) in the population correlated to higher rates of problem gambling (Delfabbro, 2002; Marshall & Baker, 2002) this does not, in itself, show that the number of machines in a specific venue has any impact on levels of problem gambling. The number of machines in these studies was related to a large number of venues, and consequently the number of VLTs in this context does not tell us much about the impact of the number of gambling opportunities in one or a few centralized venues. Furthermore, one might speculate that far fewer games in a venue could conceivably encourage a problem gambler to stay on one particular machine for fear of having to wait for another machine to become vacant.

A more complex, quantitative procedure was proposed by Shaffer, LaBrie and LaPlante (2004) who generated a 'standardized exposure gradient' that assessed gambling exposures within a particular region. This index includes the:

- *Dose* (i.e., number of gaming venues and people working in the gambling industry).
- Potency (i.e., the number of different major gambling modalities).
- *Duration* (i.e., the time casinos have been legalized).

Although limited, the accuracy could be enhanced by the integration of further information, (e.g., the extent of illegal gambling, access to gambling in adjoining jurisdictions, gaming venue attendance, and advertising). Whether or not exposure indexed by these types of measure has an impact is strongly influenced by the form of gambling involved (Abbott et al., 2004).

Taken as a whole, evidence suggests that gambling availability has a positive, but complex, relationship to the prevalence of problem gambling. The relationship is not linear and there are multiple factors that can impact problem gambling rates. In a review of situational factors that affect gambling behaviour, Abbott (2007) concluded that although increased availability of and exposure to gambling activities have contributed to increases in problem gambling, it was highly probable that other situational factors including venue characteristics, social context, access to cash or credit, availability of alcohol, and industry marketing and advertising also have an influence.



Volberg (2004) also reached a similar conclusion suggesting there is a correlation between increased availability of gambling opportunities and problem gambling. However, she then reported that in a number of replication studies that problem gambling rates had stabilized or decreased. Looking at these jurisdictions in more detail, she reported that all of them had introduced comprehensive services for problem gamblers including public awareness campaigns, help-lines, and professional counselling programs. She concluded that the relationship between increased opportunities to gamble and problem gambling may be moderated by the availability of problem gambling services. In certain areas within the US (like Montana and North Dakota) that saw an increase in problem gambling following the introduction of casinos, no public awareness campaigns or services for problem gamblers were introduced. Consequently, it appears that the increased availability of gambling opportunities does not necessarily equate to increased levels of problem gambling.

Collins (2007; see also Collins & Barr, 2006) has also reviewed this evidence and concluded that if a jurisdiction introduces new forms of gambling without some prevention initiative, it will likely result in an increase in problem gambling. However, if the jurisdiction combines the introduction of new forms of gambling with appropriate prevention and treatment services, it is likely to decrease numbers of problem gamblers. Collins and Barr (2006) note in the national South African gambling prevalence study that the country witnessed a decline in problem gambling over a twoyear period following the introduction of the National Responsible Gambling Program. More recently, Ste-Pierre et al. (2014) reached similar conclusions. However, it is important to note that the vast majority of these studies focused upon casino or electronic machine gambling not merely increases in availability of lottery playing. While Abbott (2006) hypothesized that over time, years rather than decades, adaptation (e.g., protective environmental changes such as reduced novelty in gambling and increased public awareness of problem gambling)typically occurs and problem gambling levels stabilise or reduce, even in the face of increasing exposure. However, with respect to lottery play, the industry as a whole is continuously examining new ways and strategies to revitalize gambling opportunities and ways to keep the game interesting to potential players. The incorporation of new scratch cards, capitalizing upon popular movies, items of interest, vacations, longer pay out periods (e.g., Cash for Life) may well be an important factor. In addition, online interactive lotteries are also gaining in popularity.

3.3 Effects of gambling advertising on individuals

Over the last few years there has been a great deal of speculation over the role of advertising as a stimulus to increased gambling, and as a contributor to problem gambling. In the UK, in 2013, Ofcom published research examining the volume, scheduling, frequency and exposure of gambling advertising on British television. The findings showed that there had been a 600% increase in UK gambling advertising between 2006 and 2012 – more specifically, there were 1.39m adverts on television in 2012 compared to 152,000 in 2006. The report also revealed that gambling adverts accounted for 4.1% of all advertising seen by viewers in 2012, up from 0.5% in 2006 and 1.7% in 2008. In 2007, prior to widespread gambling adverts on television, the British Gambling Prevalence Survey (BGPS) reported that 0.6% of participants were problem gamblers (Wardle et al., 2007). In the 2010 BGPS, the problem gambling prevalence rate had increased by half to 0.9% (Wardle et al., 2011). Some of this increase may, arguably, have been due to increased gambling advertising. However, the latest British survey research combining findings from the *Health Survey for England* and *Scottish Health Survey* (Wardle et al., 2014) reported that the prevalence of problem gambling is back down (to 0.5%), so perhaps increased gambling advertising hasnot necessarily resulted in an increase of problem gambling.



Various lobby groups (e.g., anti-gambling coalitions, religious groups, etc.) claim advertising has played a role in the widespread cultural acceptance of gambling. These groups also claim advertising tends to use glamorous images and beautiful people to sell gambling, while other advertisements for lottery tickets and slot machines depict ordinary people winning substantial amounts of money from a single coin in the slot (Griffiths, 2005). Such lobby groups also claim that advertisements used by the gambling industry often border on misrepresentations and distortion, and that they are seductive, appealing to people's greed and desperation for money. Real examples reported by Griffiths (2005) include: Winning is easy', Win a truckload of cash', Win a million, the fewer numbers you choose, the easier it is to win', It's easy to win' and \$600,000 giveaway simply by inserting card into the poker machine'. Lobby groups further claim that in amongst the thousands of words and images of encouragement, there is rarely anything about the odds of winning – let alone the odds of losing. It has also been claimed that many gambling adverts feature get-rich-quick slogans that sometimes denigrate the values of hard work, initiative, responsibility, perseverance, optimism, investing for the future, and even education (Griffiths, 2005).

Content analyses of gambling adverts have reported that gambling is portrayed as a normal, enjoyable form of entertainment involving fun and excitement (Binde, 2014). Furthermore, they are often centred on friends and social events. The likelihood of large financial gain is often central theme, with gambling also viewed as a way to escape day-to-day pressures (one gaming company's advertising even had the strapline "Bet to forget"). The gaming industry typically responds in a number of ways. Griffiths (2005) listed the most popular arguments used to defend such marketing and advertising is that: (i) the gaming industry is in the business of selling fantasies and dreams, (ii) consumers knows the claims are excessive, (iii) big claims are made to catch people's attention, (iv) people don't really believe these advertisements, and (v) business advertising is not there to emphasise 'negative' aspects of products. While some of these industry responses have some merit, arguably a much fairer balance is needed.

Statements such as 'winning is easy' are most likely (in a legal sense) considered to be 'puffery'. Puffery involves making exaggerated statements of opinion (not fact) to attract attention. Various jurisdictions deem it is not misleading or deceptive to engage in puffery. Whether a statement is puffery will depend on the circumstances. A claim is less likely to be puffery if its accuracy can be assessed. The use of a claim such as 'winning is easy' is likely to be considered puffery because it is subjective and cannot be assessed for accuracy. However, a statement like 'five chances to win a million' may not be puffery as it likely to be measurable.

Surprisingly, there is relatively little scientific evidence that advertising directly influences gambling participation and problem gambling. However, in a study examining youth gambling behaviours, Felsher and colleagues (Felsher, Derevensky & Gupta, 2004a, 2004b) reported that youth with gambling problems were more susceptible to gambling advertisements and were more likely to want to purchase scratch tickets. Nevertheless, demonstrating empirically that the negative effects of gambling are solely attributable to advertising is hard. For instance, a study by Amey (2001) of 1,500 people in New Zealand reported an association between participation in gambling activities and recall of gambling advertising. The study found that over 12 months, 83% of people who had gambled between zero and three times remembered seeing gambling adverts during that time. For people that had gambled four or more times, the figure was at 93%.

In 2015, Hanss et al. (2015) published one of the largest studies carried out on gambling



advertising. It involved more than 6,000 people and examined three specific dimensions of gambling advertising impacts: gambling-related attitudes, interest, and behaviour ("involvement"); knowledge about gambling options and providers ("knowledge"); and the degree to which people are aware of gambling advertising ("awareness"). Overall, the researchers reported that impacts were strongest for the "knowledge" dimension. It was also found that for all three dimensions, the impact increased with the level of advertising exposure. The study compared the responses from problem gamblers against those of recreational (non-problem) gamblers. The results suggest that problem gamblers were more likely than recreational gamblers to agree that gambling advertising increased their gambling involvement and knowledge, and that they were more aware of gambling advertising. In simple terms, the results showed that gambling advertising has a greater impact on problem gamblers than recreational gamblers. This indirectly supports previous research showing that problem gamblers often mention that gambling advertising acts as a trigger to their gambling (e.g., Binde, 2009; Grant & Kim, 2001; Hing et al., 2014).

The study also found that younger gamblers were more likely than older ones to agree that advertising increased their gambling involvement and knowledge. This supports previous research showing that problem gambling is associated with stronger perceived advertising impacts among adolescents (e.g., Derevensky et al., 2010). One of the more worrying statistics reported in the Ofcom (2013) study was that children under 16 years of age were each exposed to an average of 211 gambling adverts a year (compared to adults who saw an average of 630).

Most researchers in the gambling studies field agree that advertising 'normalises' gambling and that all relevant governmental gambling regulatory agencies should prohibit aggressive advertising strategies, especially those that target vulnerable groups including impoverished individuals or youths. Most of the research data on gambling advertising uses self-report data (surveys, focus groups, interviews, etc.) and very little of these data provide an insight into a definitive understanding of the relationship between advertising and problem gambling. A review on gambling advertising by Planzer and Wardle (2011) concluded that gambling advertising is an environmental factor that has the power to shape attitudes and behaviours relating to gambling – but just how powerful it is remains unclear.

It is also worth pointing out that there are many examples of good practice when it comes to gambling advertising. Responsible marketing and advertising should be concerned about the content and tone of gambling advertising, including the use of underage minors in ads, celebrities, and the inclusion of game information. There has to be a strong commitment to socially responsible behaviour that applies across all product sectors, including sensitive areas like gambling. Socially responsible advertising should form one of the elements of protection afforded to ordinary customers and be reflected in the codes of practice. Children and problem gamblers deserve additional protection from exposure to gambling products and premises, and their advertising. Many codes and provisions regulating gambling marketing and advertising internationally now typically include special provisions on the protection of such groups (Griffiths, 2012b).

An example of good practice is that of Canadian gaming operator *Loto-Quebec* outlined by Griffiths (2005). *Loto-Quebec* did a thorough review of its advertising code and some of the key aspects in terms of responsible marketing and advertising of gambling included:

• A marketing policy that (i) prohibits any advertising that is overly aggressive, (ii) rejects concepts liable to incite the interest of children, and (iii) prohibits the use of spokespeople



who are popular among youth, and (iv) prohibits placement of advertisements within media programs viewed mainly by minors.

- The actual odds of winning are highlighted. This is being done in response to the suggestions expressed so frequently by various groups interested in knowing their chances of winning.
- Television commercials for new products devote 20% of their airtime to promoting the gambling help line and to presenting warnings about problem gambling.
- A policy that prohibits the targeting of any particular group or community for the purposes of promoting its products. For example, one of their instant lotteries used a Chinese theme to stimulate interest. However, the Chinese community did not agree with making references to its customs in order to promote the game. Out of respect for this community, the game was immediately suspended.

As various national and international advertising regulation bodies have advocated, socially responsible advertising should form one of the elements of protection afforded to ordinary customers and be reflected in the codes of practice. The present authors' view is that gambling advertising should focus on buying entertainment rather than winning money. Gambling problems often occur when an individual's primary reason to gamble is to win money rather than gambling for social reasons or for fun.

Many countries have strict codes for gambling advertisements, and good codes (like those in the UK) while others adopt a voluntary code of ethics, recommend that gambling advertisements must not: (i) exploit cultural beliefs or traditions about gambling or luck, (ii) condone or encourage criminal or anti-social behaviour, (iii) condone or feature gambling in a working environment (with the exception for licensed gambling premises), (iv) exploit the susceptibilities, aspirations, credulity, inexperience or lack of knowledge of under-18s or other vulnerable persons, (v) be likely to be of particular appeal to under-18s, especially by reflecting or being associated with youth culture, and (vi) feature anyone who is, or seems to be, under 25 years old gambling or playing a significant role. Lottery operators should have a clearly articulated commitment to advertise their products in such ways as to minimize targeting players with gambling-related problems and underage minors.

Quite clearly it is appropriate and necessary for the gaming industry to advertise, market, and promote its facilities and products. However, all advertising and marketing should be carried out in a socially responsible manner because it is good for long-term repeat business. Overall, the small body of research on the relationship between gambling advertising and problem gambling has few definitive conclusions. In a comprehensive review, Binde (2014) concluded that (i) the advertising impact on gambling, if any, is small, and (ii) although only limited empirical evidence of advertisements affecting behaviour has been found, it appears theoretically plausible to think that there must be some sort of effect.

If gambling advertising does have an effect, it appears to impact specific vulnerable groups (such as problem gamblers and youth) but most of this research uses self-reported data that has been shown to be unreliable among gamblers (Auer & Griffiths, 2016; Braverman et al., 2014; Felsher et al., 2004a, 2004b). At best, the scientific research only hints at the potential dangers of gambling adverts. But in order to challenge the increasing normalisation of gambling among these most-atrisk groups, more robust evidence is needed.



3.4 Psychosocial impact of online versus offline gambling

Almost all self-report empirical studies have reported that problem gambling is more prevalent among internet gamblers than non-internet gamblers (e.g., Derevensky, 2012; Ladd & Petry, 2003; McBride &Derevensky, 2009; Wood & Williams, 2007; Griffiths & Barnes, 2008). However, very few studies have ever compared Internet gamblers and non-Internet gamblers using a nationally representative sample. The few that have include the secondary analyses of the 2007 and 2010 British Gambling Prevalence Surveys (i.e., Griffiths, Wardle, Orford, Sproston & Erens, 2009; 2011). In the first study, Griffiths, et al. (2009; 2011) showed that the problem gambling prevalence rate (as assessed using DSM-IV criteria) was significantly higher among Internet gamblers than non-Internet gamblers (5% versus 0.5%). However, there are many considerations to take into account. For instance, it may be that the medium of the Internet is a less protective environment for vulnerable players (e.g., problem gamblers).

More importantly, Wardle and Griffiths (2011) have asked what exactly is an 'online gambler'? Very few people only gamble online and most online gamblers also gamble offline (Griffiths et al, 2009). In the 2007 *British Gambling Prevalence Survey* (Wardle, Sproston, Orford, Erens, Griffiths, Constantine & Pigott, 2007) there were 476 people (out of 9,003 people who participated in the survey) who reported gambling online in the past year. Of these, only nine people did not report also participating in some kind of offline gambling activity. In other words, over 98% of online gamblers also gambled offline. These data suggest that 'pure' online gamblers (i.e., gamblers who gamble online and online only) are relatively rare.

According to secondary analysis from the latest BGPS study (Wardle, Moody, Griffiths, Orford & Volberg, 2011), the number of 'online only gamblers' had slightly increased to 2% but the data suggest there were a number of distinct ways to categorize gamblers based on the medium in which they gamble and what activities they gamble on in those mediums. The 2011 BGPS report surveyed 7,756 adult gamblers. Approximately one in seven respondents (14%) had gambled online in the past year (i.e., had gambled on at least one gambling activity such as gambling at online casinos and/or playing the lottery online). However, for the first time ever, the authors created four new groups of gamblers for comparison. These were those that:

- *Gambled offline only* (i.e., had gambled on at least one activity such as buying a lottery ticket in a shop or playing roulette at an offline casino but hadn't gambled online in the past year)
- *Gambled online only* (i.e., had gambled on at least one activity such as gambling on a betting exchange or gambling at an online casino but hadn't gambled offline in the past year)
- Gambled both online and offline but on different activities (i.e., had gambled on at least one activity online and one activity offline but were different activities such as gambling on a slot machine in an amusement arcade and playing blackjack in an online casino).
- Gambled both online and offline but on the same activities (i.e., had gambled on at least one activity both online and offline such as gambling at both an online and offline casino)

Perhaps unsurprisingly, of all gamblers, the largest group were those who only gambled offline only (80.5%) and the smallest group were those who gambled online exclusively (2.1%). Of far more interest were the rates of problem gambling among these four groups. The highest prevalence rates of problem gambling were amongst mixed mode gamblers who gambled on



different activities (4.3%), followed by mixed mode gamblers who gambled on the same activities (2.4%), those who only gambled offline (0.9%), and those who only gambled online (0%).

The most interesting finding is arguably the fact that there was not a single case of problem or pathological gambling among those gamblers who only gambled online. Extreme caution must be given as the player base for 'online only' gamblers were very small when compared to the other groups. Socio-demographic information from the BGPS studies suggest that those who gamble online are more educated and in better occupations than those who have never gambled online. Maybe, these demographic factors are also protective factors when it comes to the development of gambling problems? The limited data to date suggest that it may not be the medium of gambling that is more problematic per se, but that to vulnerable people (e.g., problem gamblers), the internet may be providing easily accessible 'convenience' gambling that perhaps explains why problem gambling prevalence rates among online gamblers appear to be much higher than non-online gamblers. This suggests that operators offering online gambling should be incorporating social responsibility infrastructures that provide player protection strategies that promote harm minimization. Such measures are outlined later in this report.

3.5 Summary

The question as to the impact of availability and increased exposure of gambling products upon problem gambling given the proposed expansion and liberalization of licenses is complex. What we have attempted to demonstrate it is not merely exposure and availability which is the primary concern, but rather the types of games, the accompany advertisements, the mode of gambling (land-based vs. online, and the types of games being implemented), enforcement of age restrictions, along with the concomitant services and harm minimization strategies which are most important. There is little doubt that many of the current games will evolve and change (this is particularly true of gambling products presented via the Internet and scratch cards). As such, care will need to be taken to ensure that responsible gambling strategies for minimising the harms to vulnerable populations are necessary (these are discussed in much greater detail in Chapters 5 and 6).

4. Chapter 4

4.1 If there is higher risk, is the present light regime to prevent risks for the consumer sufficient to keep the risk at the same level as before opening the market?

The National Lottery in the Netherlands has a long history, with over 40 years of offering multiple lottery products. Currently, the Netherlands Lotto is run and organized by *De Lotto* and the *Stichting de Nationale Sporttotalisator* and maintains a prominent online presence at the Lotto.nl website. The product line currently includes daily lottery draws (e.g., *Lucky Day*), *EuroJackpot*, *Lotto*, *Toto* and scratchcards. Lottery draws increase if no winning ticket has been purchased. The Netherlands Lotto uses a double or twin matrix of 6/45 + 1/6 model and has a minimum prize of €7.5 million. Options also exist whereby individuals can increase their winnings by €200,000 for an extra cost of €1 over the standard price of €2. The minimum age to purchase lottery tickets is 18 years. However, no information is readily available concerning compliance checks.

The Dutch Lotto profits, originally intended for funding of sports, are currently used to support



a variety of good causes that benefit the people of the Netherlands including health, social welfare, culture and sports. The *Staatsloterij* offers two products: *Staatsloterij* with a draw once a month along with a couple of extra draws during the year, and a weekly lottery called *Miljoenenspel*.

The liberalisation of the Dutch market needs to(i) adopt international models in promoting responsible gambling, (ii) provide suitable player protection strategies, (iii) incorporate harm minimisation strategies, and (iv) support regulatory responsible advertising principles. This includes age verification checks, monitoring of the type of games available, strict controls over advertising, and a host of responsible gambling measures and strategies adopted by socially responsible gambling operators worldwide (these will be discussed in detail in Chapters 5 and 6).

As noted in the WOK and Model licence, Article 3, there will be a limitation of 69 lotteries per year per licence holderb. However, there is little research suggesting that only one form of lottery exacerbates or creates problem gambling. Young people tend to prefer scratch tickets in order to acquire the results immediately. They like tickets with recognizable games, colourful tickets, and tickets in which there are multiple games in which they can scratch multiple objects (they view this as increased play value and the pay-out schedules tend to be more reinforcing (see Derevensky, 2012; Felsher et al., 2004a, 2004b). Older individuals prefer lottery draws where one can invest a small amount of money to possibly win a large amount of money. They are also more likely to believe in superstitious behaviour and select numbers with a symbolic significance (e.g., dates of birth, anniversary, etc.). Nevertheless, it is important to note that problem gamblers engage in multiple gambling activities, not merely lottery games. While extremely convenient, easily accessible and relatively inexpensive, the underlying motivations for excessive gambling differ significantly. While almost all problem gamblers have their preferred form of gambling (analogous to an alcoholic), if they are limited or removed from playing that activity, they will simply gamble on something else.

Of particular concern are those scratch cards that simulate children's games (e.g., *Monopoly*), provide attractive gifts, or the interactive games offered by some lottery operators which may be integrated in online venues (many of these games often incorporate themes related to young children's games). However, to date, problems with scratch cards have been very scarce and exceptional in the Netherlands.

5. Chapter 5

5.1 Which measures are considered to be most effective to limit this risk based on scientific research or eventually international best practices?

There have been many measures and initiatives that gambling operators have implemented to promote responsible gambling, protect players, and minimise harm. However, in a recent review of these measures, Harris and Griffiths (2016) concluded that only a limited number of these measures have been evaluated empirically for their effectiveness. This may be the result of limited resources, the inability to maintain rigorously controlled studies, and/or interest in research.

Listed below are the primary types of measures that operators should be taking into account when providing gambling services. Based upon the available evidence we have attempted to differentiate between those that are 'essential' (E) and those that are 'desirable' (D). Empirical evidence, where available, is provided. It should be noted that some of the measures relate to exclusively to online



operators. The following list is indicative but not exhaustive of all the measures being implemented. More comprehensive reviews can be found by Blanco et al. (2016) and Griffiths(2012b).

5.2 Responsible gambling help and support strategies for players

- Information to aid and promote informed choice (E) It is essential for gaming operators to provide information where clientele can get a range of information relating to gambling issues. One of the basic underlying social responsibility philosophies is that 'An informed player is a responsible player'. Potential players of games should be given all the information needed to make an informed choice including (i) the chances (probability) of winning on the activity, (ii) the pay-out ratios of the game, and (iii) the prize structures of the game. There is also an implicit assumption that all games will be fair and designed in such a way to protect the player. It is also important that information provided does not just contain information relating to problem gambling as this may deter some players from gambling. Information should be made available in language(s) of the clientele. Research has demonstrated that dynamic presentation of information (e.g., pop-ups, animated information) is better than static information, and that information that allows self-appraisal appears to have more of an effect on gambling behaviour than that which does not (Harris & Griffiths, 2016)
- Information about staying in control/limit setting(E)— Although players are clearly responsible for their own gambling, it is recommended that they should still be reminded of the need to exercise control and set reasonable limits (money and time) (e.g., "Bet with your head, not over it").
- Information about problem gambling(E) At the core of exercising a duty of care lies the principle of assisting players to address any concern about their gambling. For instance, it is recommended that telephone help-lines, locations of helping agencies and resources should be displayed on leaflets, operator web pages, etc. These should be in places that are visible and easy to access. It is also recommended that gaming operators should have a good referral system with local and/or national helping agencies.
- No encouragement to re-gamble (E)— Providing help, information, and advice to players is to be commended. However, players should under no circumstances be encouraged to (i) increase neither the amount of money they have decided to gamble nor the frequency of their gambling, (ii) enter into continuous gambling for a prolonged period of time, (iii) regamble their winnings, or (iv) chase losses.
- Reliable payment of winnings (E) Given some of the socially irresponsible and fraudulent practices carried out by some gaming companies (see Griffiths [2010] for an overview), reliable payment options are essential for both social responsibility and in gaining trust among players.
- Responsible advertising(E) No misleading advertising or inducements for underage players should be provided.



- Responsible games (E) Games should be vetted through a system where games particularly attractive to vulnerable populations, underage individuals and problem gamblers are excluded from the operators' offerings.
- Responsible gambling message protocols immediately after initial registration for online gamblers(D) Online gaming companies should have an initiative that immediately after the registration process, all players receive a 'welcome message' that includes information about responsible gambling tools (as well as where these can be found on their website) and methods (the first of a number of 'reminders' about playing responsibly). Continual reminders to players that they should 'stay in control' of their gambling is another of the 'bedrocks' of a socially responsible gambling policy.
- Use of socially responsibility messages (e.g., 'health warnings' via 'pop-up' windows) (D)— Use of non-intrusive but clear pop-up windows in online gambling or on the playing of slot machines can be used after pre-determined periods. This is useful because gambling can create dissociative states where customers can lose track of time gambling (Griffiths, Wood, Parke & Parke, 2006). Players are responsible for their gambling, but should still be reminded of the need to exercise control. These should be "risks of the game" and should be incorporated where they will be read by online players. These are important as most gamblers believe they win can based on faulty reasoning or belief systems (Griffiths, 1994; Parke, Griffiths & Parke, 2007).
- Effective self-exclusion program(E)—The option for self-exclusion should be offered to any player that requests it, and is a good demonstration of a gaming company's 'duty of care' towards its clientele. Care needs to be taken on the length of self-exclusion and the criteria for re-inclusion. There is much debate about whether self-exclusion programs are effective but empirical research appears to show they are appreciated by some problem players and their families (Ladouceur, 2013; Ladouceur, Sylvain & Gosselin, 2007; Nowatzki & Williams, 2002; RGC, 2012; Tremblay, Boutin & Ladouceur, 2008).
- Short-term self-exclusion (cooling off period) options (D)—Research has shown that online gamblers appear to appreciate self-exclusion facilities even if they do not have a problem with gambling with the seven-day exclusion period appearing to be the most useful to players (Griffiths, Wood & Parke, 2009). One-month and one-day self-exclusion periods are also popular among players. These types of self-exclusion programs, also referred to as a cooling off period are likely to be associated with non-problem gamblers who may want to restrict their gambling behaviour to a very specific instance such as preceding a night of heavy drinking (e.g., a 'drunk button' for 24-hour self-exclusion) or a particular time of the year like the run up to Christmas) (e.g., one-month self-exclusion). Here, self-exclusion is related to non-problem gambling (rather than problem gambling).
- Approaching regular online players(D) Holland Casino has a strategy where they approach gamblers who visit the casino a number of times during a period (e.g., for young adults, 18-23 years of age, six times a month; for individuals age 24 years and older, 15 times in a month). This is done as a helpful and (apparently) non-intrusive manner as part of their overall customer service program. However, this can only be done when a registration system is in place.



- Continued treatment options (E) –The Netherlands has an organized Gamblers Anonymous chapter [(Anonymous Gamblers and Environment of Gamblers (AGOG)] with over 27 chapters spread throughout the country and participants can also receive online assistance for Gambling Therapy through the Gordon Moody Foundation. In addition, outpatient treatment for problem and pathological gamblers is provided by public addiction treatment institutions. A National Alcohol and Drug Information System (LADIS) provides information on treatment seeking problem gamblers (Goudriaan, de Bruin & Koeter, 2009).
- Support service for players requiring help (D)—When a player takes the initial decision to self-exclude on a long-term or permanent basis, they are motivated to do something about their gambling problem(Blaszczynski, Ladouceur & Nower, 2007). However, it can sometimes be difficult to provide the self-excluded player further immediate and ongoing support. An online support service can be available via a hyperlink from the gaming operator's website and/or the online gaming platform. Such a service could be regionally or nationally available and would assist players who cannot easily access self-help groups (see Wood & Griffiths [2007] for an overview of the advantages of online helping services). Such an initiative would also offer further support to a player immediately following an application for long-term or permanent self-exclusion. While this is feasible for online operators, enforcing self-exclusion programs becomes highly problematic for land-based lottery vendors. Nevertheless, an online support service could include the following:
 - o Links to further support and help services
 - o A self-assessed diagnostic test
 - o A forum where players can talk to and support each other
 - o FAQs about problem gambling
 - o A compact 'self-help manual' for problem gamblers
 - o The possibility of an interactive chat line

In most cities and towns in the Netherlands ambulant addiction treatment services are available. Furthermore, a helpline is available and also used by *Holland Casino*, the slot machine arcades as well as the *Nederlandse Loterij* that offers service 24/7 via telephone, email, chat, *Twitter, Facebook* and *Whatsapp*. This service is called HANDS.

5.3 Socially responsible restriction and control strategies for players

In online gaming environments, many socially responsible restrictive practices that are commonplace in land-based gaming environments, are either unrealistic to initiate (e.g., not allowing people to gamble with credit cards), impossible to enforce (e.g., not allowing gambling while drinking alcohol excessively), and/or counterproductive for vulnerable players (e.g., restricting opening hours). For instance, it is unrealistic in a market where there are thousands of online gambling operators to have limited hours of opening. In the online world, it is better to have the most socially responsible gambling sites operating alongside disreputable and/or less socially responsible gambling sites 24/7. If the most socially responsible gambling sites were only open for 12 hours a day, players who wanted to gamble when that site was closed may elect to gamble at a less socially responsible and/or disreputable site. Therefore, restricting the hours of operation of a socially responsible gambling website in a market where there are less socially



responsible gambling websites could be argued to be a socially irresponsible practice. However, there are a few restrictive practices that socially responsible gaming operators could implement online (or offline if a player card was mandatory).

- Spending limits (E)— All online players (and offline players with player cards) should be allowed to voluntarily set their own spending limits (although some operators may have their own mandatory spending limit). Restricting the amount of money players can spend while gambling is viewed as a good initiative in terms of social responsibility (e.g., Auer & Griffiths, 2013; Griffiths, 2003; Smeaton & Griffiths, 2004; Griffiths & Wood, 2008). By incorporating maximum spend limits while gambling, players can plan and pre-determine their gambling behaviour. In relation to mandatory versus voluntary spending limits, the evidence suggests that the most appropriate responsible gambling strategy to be implemented by online gaming operators would be for voluntary (rather than mandatory) pre-determined spending limits by players. This is because individuals are likely to vary widely in the amount of disposable income that they have available for leisure activities such as gambling. Therefore, a fixed mandatory spend limit will always be too little for some and too much for others. One of the more consistent research findings from the limited empirical base is that mandatory limits are unpopular with the majority of gamblers (Wood & Griffiths, 2010). This could conceivably lead to some individuals deciding that they prefer to gamble with less responsible gambling operators. Some operators also have low maximum bet sizes that will be of help to some vulnerable players but careful consideration needs to be given to the playing clientele as a whole. Many gamblers will want to wager larger amounts of money and can afford to do so. It may be the case that having a mandatory limit chosen by the players themselves is the optimal strategy in this instance. Empirical research has shown that the setting of spending limits is an effective harm minimization strategy among the most intense players, particularly casino and lottery players (Auer & Griffiths, 2013).
- Time loss limits (E) —A few online gambling operators have introduced this as a voluntary measure and appears to have been popular with a small base of players. This may be particularly useful for games where players may lose very little (or in fact win slightly) but who can spend inordinately long hours playing (e.g., online poker) (see Wood, Griffiths & Parke, 2007). As an example, poker gamblers do not necessarily lose large amounts of money and may even win or break even but can spend substantial amounts of time playing that compromises many other areas of their life. Empirical research has shown that the setting of time limits is effective among the most gaming intense players, particularly poker players (Auer & Griffiths, 2013).
- Limit setting in specific games (D) Again, while not radically different from general limit setting, this (in relation to a specific online games) would be fairly easy to introduce to very specific forms of online gambling (e.g., maximum small blind, big blind in online poker).
- Mandatory game breaks(D)— It is recommended that continuous games that is any game
 that can be plaid continually without breaks (especially the rapid, high event frequency,
 interactive games) should feature a mandatory break every 60 minutes during play. Ideally
 this break should be for at least five minutes (if not longer). This is particularly important
 for those who may find it more difficult to stick to self-imposed limits. Mandatory breaks



provide players with a self-reflective 'time out' period to think about whether or not they wish to continue gambling. Such breaks also inhibit a player from using gambling as a way to escape from their problems by entering into a dissociative (trance like) state through continuous gambling (Derevensky, 2012; Griffiths, Wood, Parke & Parke, 2006; Wood & Griffiths, 2007). Breaks need only last a few minutes during which time a player can 'cool off' and decide more rationally whether they should continue or stop gambling. However, it is important to note that one empirical study using a small number of undergraduate students reported that a 15-minute break had the unintended consequence of players increasing their cravings to gamble(Blaszczynski, Cowley, Anthony & Hinsley, 2015).

- Socially responsible parameters on changing of customer spending limits (D) —From a social responsibility perspective, players should be able to decrease their spending limits immediately. However, there should be an appreciable time period (e.g., 24 hours) before being able to increase spending limits as a mechanism to overcome 'impulse' gambling.
- An effective and rigorous age verification program for excluding under-aged players(E)— Given that research worldwide demonstrates that children and adolescents are one of the most high-risk vulnerable groups (e.g., Calado, Alexandre & Griffiths, 2016; Derevensky, 2012; Volberg et al, 2010), it is recommended that gaming operators use and implement rigorous age verification measures to prevent minors from accessing gambling both online and offline.
- Restricted use of 'reload' during a gambling session (D)— In offline, land-based gaming venues, it is recommended that ATMs should not be placed on the gaming floor and that there is an appreciable walk to any ATM on-site. This is so there is sufficient opportunity (like mandatory breaks) for players to take a self-reflective 'time out' period. Given that one of the common behaviours of online problem gamblers is constantly 'reloading' their play credit during a single gambling session (Griffiths, 2009; Delfabbro, King & Griffiths, 2012), it is recommended that online gaming operators restrict where possible within session 'reloading' and introducing mechanisms (such as voluntary spending limits) that allow the players to 'pre-commit' how much they are going to spend on gambling before they begin playing. In essence, restricting 'reloading' within gambling session is the equivalent to not allowing ATMs on the gaming floor.

5.4 Socially responsible strategies for promoting behavioural transparency (player self-awareness of their playing behaviour)

- Fair site practices (E)—Given a number of academic reports have focused on unfair practices used by the online gaming industry (Smeaton & Griffiths, 2004; Sevigny, Cloutier, Pelletier & Ladouceur, 2005; Griffiths, 2010), all online gaming operators should include fair site practices across their entire game portfolio.
- Visible and accessible betting history (E) Information provided regarding the past gambling behaviour of the customer is essential. An individual's betting history should detail his/her financial outcome, profits/losses over specified timeframe as an aid to behavioural transparency. This enables gamblers to clearly and readily see the level of involvement in gambling and the monetary outcomes of such involvement. Data presented in an understandable manner indicating this diminishes the effect that cognitive heuristics have



when discounting or ignoring incurred losses. Furthermore, customers should be allowed to indicate that they wish to receive weekly account statements delivered to their email address. By evaluating their own gambling behaviour, gamblers are likely to be motivated to establish their own parameters. It is also recommend sending an e-mail periodically to remind customers of the importance of setting parameters. Empirical research has also shown that access to gambling history is seen as highly useful by most online gamblers (International Gaming Research Unit, 2007; Griffiths, Wood & Parke, 2009; RGC, 2012).

- Use interactive pop-up messages about current gambling behaviour (D) Non-intrusive pop-ups about time elapsed, amount spent, profit, loss, etc. can be used to help players assess their online gambling behaviour. Another socially responsible strategy might be to have non-intrusive but clear pop-up window that appears after pre-determined periods. It is advisable to ask the customer if they wish to continue so that they must read and acknowledge the time and the duration of their play. Gambling can create and maintain dissociative states where customers can lose track of time and duration of gambling (Griffiths, Wood, Parke &Parke, 2006). Therefore, actual information regarding these factors need to be periodically recognised consciously. There is a growing body of research demonstrating that pop-up messages in an online environment appear to help a small number of gamblers cease intensive within session play (Auer & Griffiths, 2015a; Auer, Malischnig & Griffiths, 2014).
- Website Clock (D) A website clock should always be visible and accessible. Gambling can create dissociative states where customers can lose track of time gambling (Griffiths, Wood, Parke & Parke, 2006). However, unless prominently displayed this will be ineffective.
- Value reinforcement (E) Online gambling operator should emphasise the financial value of chips or online credit or place balances in euros. For most gamblers, the psychological value of electronic cash (e-cash) will be less than actual cash (similar to the use of chips or tokens in other gambling situations) (Lapuz & Griffiths, 2010). Gambling with e-cash may lead to what psychologists call a "suspension of judgement" (Griffiths, 1993). The suspension of judgement refers to a structural characteristic that temporarily disrupts the gambler's financial value system and potentially stimulates further gambling. This is well documented in commerce (people typically spend more on credit and debit cards because it is easier to spend money using plastic), and by the gaming industry. In essence, e-cash "disguises" the money's true value (i.e., decrease the psychological value of the money to be gambled). E-cash can often be re-gambled without hesitation as the psychological value is much less than the real value, and empirical research has demonstrated that people spend more when gambling with chips than with real money (Lapuz & Griffiths, 2010).
- Utilize realistic and restrictive "practice modes" (E) Any free practice mode that is offered to the customer must have an appropriate message regarding responsible gambling. The odds of winning and pay-out rates should be identical for "free play" modes as playing for actual monies. One of the most common ways that gamblers can be facilitated to gamble online is when they try out games in the 'demo', 'practice' or 'free play' mode. Research carried out by Sevigny, Cloutier, Pelletier and Ladouceur (2005) reported it was significantly more commonplace to win while "gambling" on a 'demo' or 'free play' game. They also reported



that it was commonplace for gamblers to have extended winning streaks during prolonged periods while playing in the 'demo' modes. Obviously, once gamblers start to play for real with real money, the odds of winning are considerably reduced. Furthermore, access to practice modes should be prevented for those under the legal age to gamble (Derevensky, 2012). Giving access to such simulators could encourage someone underage to seek opportunities to gamble for real money (Derevensky & Gainsbury, 2016;Kim, Wohl, Gupta & Derevensky, 2016) (see next bullet point).

- Age verification for 'demonstration' and/ or 'free play' games (E)— Age limit verification procedures should be required for all players even those who are not spending money in the 'free play' modes. A British study by *Ipsos MORI* (2009) surveyed 8,598 school age children (aged 11- to 15-years) who reported that just over a quarter of the sample had played in 'moneyfree mode' on internet sites in the week preceding the survey. Further analysis of these data by Forrest, McHale and Parke (2009) reported that gambling in money-free mode was the single most important predictor of whether the child had gambled for money, and one of the most important predictors of children's problem gambling. This finding, and other similar findings relating to youth access of 'free play' gambling sites, has been discussed in comprehensive reviews of youth gambling on the internet (see Derevensky, 2012; Derevensky & Gainsbury, 2016; Griffiths, 2015; Griffiths & Parke, 2010; King, Delfabbro & Griffiths, 2010).
- Use socially responsible player behaviour monitoring tools (E) Online operators or land-based operators that use player cards and loyalty cards have data that can be subjected to analysis by behavioural tracking tools. Systems that track player behaviour are likely to have a significant impact on the national and international gaming markets. If a player's behaviour indicates gambling problems, it is recommended they should be deleted from the direct advertising address lists. Via such initiatives, it is also recommended that players should be offered control tools (e.g., personal gaming budgets, self-diagnostic tests of gaming habits, and the chance to self-exclude from gaming). The highly innovative aspect of such technologies is that they may be able to predict the development of unhealthy gaming behaviour patterns. Furthermore, behavioural tracking tools provide many advantages for the online gaming company using them including: (i) an aid to acquiring or maintaining a operating licence, (ii) compliance with law and/or organisational guidelines (e.g. World Lottery Association), (iii) proactive risk management (e.g. to avoidance of court cases), (iv) strengthening trust mark (to increase customer base), (v) increase of Customer Lifetime Value (to increase revenue/profit), and (iv) helping of customers to help themselves (customer empowerment but also reduced internal costs). Recent empirical research has highlighted that such tools can help players gamble more responsibly (e.g., Auer & Griffiths, 2015b; Forsström, Hesser & Carlbring, 2016; Wood & Wohl, 2015).

5.5 Socially responsible marketing strategies for gaming

• Responsible advertising and promotion(E)— Quite clearly it is appropriate that online gaming industry needs to advertise and promote its offerings. In addition to conforming to each country's own advertising codes of practice, the most important recommendation would be that advertisements and promotions should not appeal to vulnerable individuals (e.g. minors, those with severe intellectual difficulties, problem gamblers, etc.) or be 'aggressive' and/or use popular celebrities. Furthermore, electronic/television/radio media advertising



should be aimed at an adult audience and appear after the 9pm 'watershed'. All advertisements should feature the odds of winning (RGC, 2012).

- Focus on entertainment rather than gaming in advertising and promotion(D)— A focus on entertainment rather than winning money in advertising and marketing campaigns is recommended. When individuals primarily gamble to win money, and that is their only objective, problems may arise (Griffiths, 2007).
- Limit the use of marketing promotions that reward the highest spenders (D) Previous research focused on advertising and marketing from a social responsibility perspective have noted that it is entirely appropriate for the gaming industry to advertise and market their products as long as it conforms to the relevant codes of compliance, is fact-based, does not oversell winning, and is not aimed at (or feature) minors (Griffiths, 2001). As Griffiths and Parke (2002) have noted, there is a fine line between customer enhancement and customer exploitation particularly when it comes to facilitating new clientele and repeat patronage. Griffiths and Parke (2003) have distinguished between two fundamentally different forms of promotional bonus – the 'general bonus' and the 'proportional bonus'. These may have different implications in terms of social responsibility. General bonuses are those offers that are provided irrespective of the type of player (e.g., an occasional gambler is as equally entitled to the bonus as a 'heavy' gambler). Proportional bonuses are those offers that depend on how long and/or frequently the player gambles with a particular gaming establishment. This means that 'heavy' gamblers would receive disproportionately more bonuses than an irregular player. Given that a significant proportion of the 'heaviest' gamblers (sometimes referred to as 'VIP gamblers') may be problem gamblers, it raises questions whether rewarding people the more they spend is the most socially responsible strategy.
- Prohibition of marketing and advertising to long-term self-excluded online players (E) Any player that self-excludes for a significant period (three months or more) should not receive any advertising or marketing mail, email or other messages about any form of online gambling (RGC, 2012).
- Responsible gaming television and radio commercials(D) –Ideally, there should also be some 'counterbalanced' radio and television adverts talking about problem gambling and its prevention. Initiatives could be actively promoted via newspaper and magazine advertisements.

5.6 Socially responsible strategies for the design and implementation of new games

- Develop a protocol for the introduction of all new games (E)— The use of guidelines by which to consider the possible impacts of a new online game is recommended. The utilization of social responsibility reports conducted by researchers and academics with expertise in responsible gaming will help ensure that up-to-date research findings are taken into account.
- Consider using responsible gaming design tools(D)— An objective design tool can aid in the development of socially responsible online games before they arrive at the stage where they need to be assessed through other measures. Using a responsible gaming design tool



such as *GAM-GaRD*(Gambling Assessment Measure-Guidance about Responsible Design)(Griffiths, Wood & Parke, 2008) and/or *ASTERIG* (Assessment Tool to Measure and Evaluate the Risk Potential of Gambling Products) (Peren et al., 2011) can provide another level of objective evaluation and help prevent the development of games that might then be scrapped or need drastic modification. Following a Social Responsibility Assessment, tools such as *GAM-GaRD* or *ASTERIG* can be used to identify the structural characteristics of games that present the greatest risks for excessive play. *GAM-GaRD* identifies which elements of a game, if any, are problematic so that they can be 'adjusted' to make the game safer or can be combined with other external measures of social responsibility in an effort to reduce overall harm. *GAM-GaRD* was designed so that it can be used to assess any gambling type game by anyone with a basic knowledge of the game features.

GAM-GaRD, originally developed by Drs. Wood and Griffiths (see Wood, Shorter & Griffiths, 2014 for a comprehensive list of all the RG features specified), along with 22 international experts in the field of responsible gambling issues, originally examined 10 structural characteristics deemed to be the most influential in impacting the gambling behaviour of vulnerable individuals. The original version was subsequently revised in 2012, updated in 2013, and is now in version 3.0 (Wood, 2016). GAM-GaRD is currently in use in 29 jurisdictions world-wide, with six regulators currently using the system. Based upon the criteria, games are rated "very low-risk", "low-risk", "medium-risk", "high-risk", and "very high-risk". Wood and his colleagues collated all the data and examined 45 responsible gambling features (not all features were relevant to all games). For online games, 34 relevant RG features were considered, while for offline games between 14 and 18 features were considered depending upon the game. Most of the features incorporated in the scoring mechanism are previously noted in the above recommended sections.

ASTERIG, originally developed in Germany between 2006-2010 by Franz Peren, is similar in many ways to GAM-GaRD as an assessment tool to measure and evaluate the risk potential of any gambling product based on scores on ten dimensions, thus allowing a comparison to be drawn between the addictive potential of different gambling products. Similar to GAM-GaRD, it highlights where the potential risks of certain gambling activities lie. The basic assumption of both instruments is that not all gambling products have the same risk potential. Using a similar methodology, Delphi methodology, the development process included 15 international scholars with expertise in RG. Using a Likert scale from 0 (of no importance) to 10 (of very great importance) the following items were assessed: Event frequency, interval of payback, jackpot, continuity of playing, chance of winning a profit, availability, multiple playing-/stake opportunities, variable stake amount, sensory product design and near wins. The experts assigned various weights to each of these 10 dimensions. Risk potential was evaluated based upon the total score, with five categories being designated ('lowest'', "low", "moderate", "high" and "highest" (see Blanco et al., 2013).

While both scoring systems have merit, a comparison of both instruments suggest GAM-GaRD provides a more comprehensive examination of gambling activities, more differentiation between online and land-based games with greater detail, and more information to product designers such that games can be developed to risk the risks for vulnerable individuals. From an operator's perspective it can reduce the costs of money



being wasted on the development of a game that might otherwise be potentially problematic (Griffiths, Wood & Parke, 2008a, 2009b).

• Accreditation by external organization (D)— Before launching a new gaming product or developing an existing one, the operator should consult, commercially in confidence, with the lead body involved with the social impact of gambling to seek external accreditation for their gaming products. At present a number of accreditation services including certification of gambling product. To date, around 20 Codes of Practice have been developed by different kinds of independent organisations, but also represents specific parts of the gambling industry and others. GamCare (UK),RG Check (Canada) and G4 (Global Gambling Guidance Group) are arguably the most known and used.

5.7 Socially responsible staff-related strategies for online gaming

- Dedicated responsible online gaming staff(E)— There should be a number of staff members that
 are specifically trained to maintain and review the online responsible gaming initiatives
 outlined in the responsible gaming policy. Furthermore, they should be responsible for
 producing an annual social responsibility report as part of the monitoring and auditing
 procedures (discussed below). Using online tracking software, these staff members should
 also be trained to identify players who appear to be having problems and/or know how to
 intervene and offer support.
- Staff training(E)— It is recommended that gaming operators provide relevant responsible online gaming training to relevant gaming staff. Ongoing staff training around the area of social responsibility should be given at all levels to all those working in the online gaming industry. Raising awareness of such issues is a necessity to enable staff to deal with relevant situations. It should perhaps be stated that the training is ongoing particularly because of (a) staff turnover, and (b) the development of new empirical research in the gambling studies field that continues to enhance our understanding of dealing with online problem gambling issues. Guidelines for staff training about responsible gambling based on empirical research have just been published (see Oehler et al., 2016).
- Auditing and testing of staff training(E)—Staff should be regularly assessed(e.g., every two years) to ensure that they fully understand the principles of the social responsibility policy for online gaming. In addition, it is important that gambling operators are always aware of which members of staff have completed a training program and at what level. A database of staff training (of who has completed what training, and when) should be developed. Training programs should be regularly reviewed (e.g., every two years) in order to remain relevant and effective.
- Dedicated customer support staff trained to deal with problem gamblers(E)— It is recommended that gambling operators educate its customer support staff in handling enquiries regarding problem gamblers and appoint staff to monitor, enforce and evaluate the responsible gaming strategy. Such training should be updated every two years. Staff should also be able to identify aspects of policy and practice relative to appropriate intervention that will contribute to minimizing the harm attributable to uncontrolled online gambling. A responsible gaming manager should prepare an annual report detailing the issues relating to every aspect of the responsible online gaming policy for that year.



6. Chapter 6

6.1 With the introduction of online lotteries, and as a follow up to Question 3, are methods available that measure consumer risks regarding lottery products?

As noted above, there are now responsible gambling tools that can assess the risk potential of games (e.g., Asterig, GAM-GaRD). Some companies (e.g., Veikkaus' Game Evaluation Tool in Finland and some others such as a tool used by La Française de Jeux in France, and a related one developed by the Lotto in the Netherlands, although much less widely used), have developed their own tools to do the same thing. The use of such tools and procedures, to better understand the features of games that may increase or decrease risks for vulnerable players, is a relatively recent area of application. However, the study of the structural and situational characteristics of games has been investigated by a small number of researchers for some time (see pages 28-29 for a more thorough description of ASTERIG and GAM-GaRD).

Structural characteristics are typically those features of a game that are responsible for reinforcement, may satisfy players' physiological and psychological/motivational needs and may (for some 'vulnerable' players) facilitate/result in excessive gambling (Griffiths, 1993; 1999). By identifying particular structural characteristics, it is possible to see how needs are identified, to see how information about gambling is perceived, and to see how thoughts about gambling are influenced (Griffiths, 1993; 1999).

Situational characteristics are typically those that influence people to play in the first place (Griffiths, 1993; Griffiths & Parke, 2003). These characteristics can refer to both 'purchase' and 'play' environments and can include such characteristics as the location of the gambling outlet, the number of gambling outlets in a specified area and the use of advertising in stimulating people to gamble. These variables may be very important in the initial decision to gamble and may help clarify why some forms of gambling are more attractive to particular socio-economic classes (Griffiths & Wood, 2001). Some situational characteristics overlap with structural characteristics. For example, the accessibility of the gambling activity can determine both the ease with which a game is accessed (situational) as well as how the game appears, and is experienced (structural).

Structural characteristics, in particular, appear to be an increasingly important role in the maintenance of gambling behaviour. By identifying and understanding how games are structured (i.e., game design and associated features) we are really trying to unravel what makes some games more problematic for vulnerable players, what makes them playable or fun for social players and therefore, what makes it engaging and commercially successful. Accordingly, the identification of these may have real and important implications for several interested parties to do the following:

• Inform the gaming industry: Information about potentially risky features of games can help the industry with their responsible gaming strategies. By examining and reducing the risk of games during the development stages, it is possible to design games that will have the minimum negative impact. Such an approach would help in reducing the numbers of potentially vulnerable players who go on to develop gambling problems.



- Educate and inform players: Information may empower players to gamble in a responsible way if we can help them to understand, identify and even adjust to such cues by either avoiding or exercising caution when playing high-risk games. For example, players engaging in games that have high event frequencies could aim to be more cautious, if they know that they could spend money faster or chase their losses easier.
- Educate and inform clinicians/treatment providers: To ensure that they have the appropriate knowledge to help people with gambling problems through education and/or challenging cognitive biases and irrational beliefs. Structural awareness of games may also help identify information about a player's motivation by examining the type and form of gambling preferred. In clinical sense, this may yield new information regarding player motivation that could inform any subsequent intervention.

Such an approach also allows for psychologically context-specific explanations of gambling behaviour rather than vague global explanations such as 'addictive personality' (Parke & Griffiths, 2006). That is, it shows how different elements of a game can have an effect on people rather than assuming that a whole game is either 'good' or 'bad' for vulnerable players. Although most, if not all, gambling-inducing structural characteristics (e.g., event frequency and consequent reinforcement) are dependent on individual psychological factors, they are a direct result of the structural characteristics and could not have influenced gambling behaviour independently. This can be described as a 'psycho-structural' interaction (Griffiths, 1993).

It has been widely accepted that structural and situational characteristics influence the acquisition, development, and maintenance of gambling behaviour. However, it would appear that the role of structural characteristics has become even more significant within the past decade (Parke & Griffiths, 2006; 2007). Interactive feature plays, increased skill orientations, faster and more continuous game play, better graphical interfaces, combine to produce sophisticated and psychologically immersive games (Griffiths, 2003). Therefore, any effective measures aimed at reducing the risk of 'vulnerable players' developing problems needs to consider the 'risky' elements of games during their development stages.

For instance, *GAM-GaRD* can be used to identify the structural and situational characteristics of games that present the greatest risks for excessive play. *GAM-GaRD* provides each game tested with a total score that can provide a 'traffic light' metaphor rating (i.e., green = low risk for vulnerable players: amber = medium risk for vulnerable players; red = high risk for vulnerable players). It is important to note that a 'red' rating does not necessarily imply or suggest that a game should *not* be introduced into the marketplace. If a game is identified as having some problematic features there are a number of options and strategies that can be considered and implemented:

• Change one or more of the individual characteristics of the game to lower the overall score: It is possible to use the measure to identify the specific problematic features of the game in order to adjust the game accordingly. For example, if the game scores high on event frequency, then measures can be introduced to slow the game down, and lower the overall score. If a game scored high on continuity of play, then breaks could be put in place between the end of one game and the start of another.



- Employ more market protection and preventative strategies: If a game scores highly, other protective and preventative responsible gaming initiatives might be introduced to limit, control, or minimize the effect of the game. For example, an online game may be restricted in terms of the hours that it is made available, or weekly spend limits could be introduced. Players who lose a certain amount might be prompted to reconsider whether they wish to continue playing. Other socially responsible strategies may be avoiding placing gaming machines in socially deprived areas, away from younger players, or where alcohol is prevalent.
- Abandon the game: In some cases, the game may be abandoned or require such serious
 modifications that the game becomes unfeasible, unprofitable and/or unattractive to
 players.

7. Chapter 7

7.1 Conclusions and recommendations

We have attempted to address the questions posed with respect to our current knowledge concerning the relationship between lottery playing and problem/disordered gambling. While accessibility and availability are important considerations, the types of games and their structural characteristics are critical elements associated with addictive behaviours. Problem gamblers are not a homogenous group. Their psychological characteristics and motivations for gambling differ widely. As such, problem gambling is best understood from a combined biopsychosocial (within individual), situational (within environment), and structural (within game) perspective. While some game types may be more appealing to specific individuals, the underlying structural characteristics associated with gambling are important in the acquisition, maintenance, and cessation of this behaviour.

Merely increasing the availability and accessibility of lottery outlets is not going to be the key factor. Rather, lottery operators will need to be cognizant of the attributes of the new games which may place vulnerable players at risk for excessive gambling. From a social policy perspective, it is important that operators be encouraged to adopt systems and policies toward promoting responsible gambling. The use of an advisory board consisting of Responsible Gambling experts can help facilitate and develop socially responsible policies, ultimately minimizing problems. More specific recommendations include:

- A senior member of the executive team for each lottery operator should assume the position as coordinator of Responsible Gambling.
- All staff should have, at minimum, some level of training in problem gambling, with senior management receiving more intensive training.
- Operators should be mandated to adopt a valid system for screening all new products to ensure all games meet socially responsible standards.
- Advertising of lottery products must meet socially responsible standards.
- Each operator should have a written set of guidelines addressing their Responsible Gambling Program. This program should be internally reviewed annually and be subject to review by the Gaming Authority.



- Operators should develop policies addressing stakeholder engagement, retailer training, player education, treatment referrals, responsible advertising and marketing communications program, enforcement of age prohibitions, and self-exclusion programs.
- Operators should be encouraged to consult with authorities in the field of Responsible Gambling in the development of their social responsibility/player protection policies (such policies have been developed by the *European Lottery Association, World Lottery Association,* and the *Global Gambling Guidance Group*(G4), among others).
- Online operations should incorporate player protection tools that provide the public with accurate and balanced information to enable informed choices, opportunities for time and money limits, cool-off periods, and self-exclusion opportunities.
- Operators should develop responsible gambling policies consistent with the *European Lottery Association*, *World Lottery Association* and/or other Responsible Gambling standards.

7.2 Samenvatting (Executive Summary in Dutch)

De kansspelindustrie in Nederland staat op het punt om te veranderen. Het kansspelbeleid wordt gemoderniseerd op drie terreinen. Ten eerste worden de online kansspelen gereguleerd ten einde spelers veiliger en meer verantwoord te laten spelen met gereguleerde aanbieders waarop wordt toegezien. Ten tweede wordt de loterij en de casino markt hervormd. Holland Casino wordt in 2018 / 2019 geprivatiseerd, het aantal loterij aanbieders zal significant toenemen en zij zullen veel meer bewegingsruimte krijgen om te innoveren. Tenslotte, 50% van ieder verkocht lot gaat naar 'de goede doelen', die nu al meer dan 580 miljoen euro per jaar ontvangen van de loterijen. Echter er wordt niet verwacht dat deze modernisering ook significant meer geld voor 'de goede doelen' betekent. Als resultaat daarvan zullen wetgevers en beleidsmakers en het algemene publiek een duidelijk aandeel houden in een effectieve, winstgevende, maar ook een veilige kansspelmarkt.

De doelstellingen van het nieuwe kansspelbeleid: het voorkomen van kansspelverslaving, bescherming van de consument, het bestrijden van fraude en andere criminaliteit worden niet langer nagestreefd door het beperken van het aanbod van kansspelen, maar door het verscherpen van de richtlijnen voor licenties van de aanbieders en het versterken van de handhaving door de Kansspelautoriteit. Deze hervormingen markeren een nieuw hoofdstuk in de modernisering van het kansspelbeleid, dat begon in 2012 met de oprichting van de Kansspelautoriteit.

De Wet Kansspelen op Afstand heeft als doel om online gokken te reguleren en creëert de basis voor een vergunningensysteem dat de Nederlandse bevolking in staat stelt om online veilig en verantwoord te spelen. Het legt strikte verplichtingen op aan het online kansspel aanbieden, inclusief maatregelen om spelers beter te beschermen tegen gokverslaving. Alle aanbieders met een vergunning moeten 29% kansspelbelasting betalen en een heffing aan de Kansspelautoriteit. Daarenboven moeten aanbieders van online kansspelen, casinospelen en speelautomatenhallen een heffing betalen voor het Verslavingspreventiefonds. Voor deze meer risicovolle kansspelen zet de Kansspelautoriteit een centraal register op dat probleemspelers de mogelijkheid geeft tot tijdelijk uitsluiting van deze kansspelen. Dit maakt het in principe makkelijker om probleemspelers te identificeren en hulp aan te bieden. De loterijen worden geacht van belangrijke maatschappelijke waarde te zijn. De overheid is er derhalve alert op om met ingang van 2017 uitbreiding te geven aan nieuwe initiatieven met een doelstelling gericht op het algemeen belang met de invoering van de strikte vereisten zodat dit doel zeker wordt gediend.



In de nieuwe beleidsregels is bepaald dat er geen beperking komt in het aantal vergunningen. Binnen het voorgestelde beleidskader zal er alleen sprake zijn van land based, offline loterijen en geen online loterijen. Voor de huidige vijf monopolies (Staatsloterij, Lotto, Sporttotalisator, Instant/ kras loterij en de Totalisator) worden verschillend beleidsopties onderzocht. Bij het maken van keuzes ten aanzien van de nieuwe markt komen verschillende beleidsopties aan de orde.

De beleidsmatige basisprincipes voor het beheren van deze loterijen houden tevens algemene regels in ten aanzien van de bescherming van de gebruiker (advertenties, reclame en preventie en het verminderen van de schade als gevolg van problematisch spelen, voorkomen van criminaliteit en illegaliteit). Tevens houdt het specifiekere richtlijnen in voor beleid (ministerie van Veiligheid en Justitie) en specifieke vergunningsvoorwaarden die vanuit de Kansspelautoriteit zijn vereist.

Het is te verwachten dat de wet Kansspelen op Afstand in 2018 van kracht zal zijn en dat op deze manier meer "risicovolle spelen" worden gereguleerd. Dit lijk niet het geval te zijn voor loterij producten omdat zij geacht worden veel minder gevaarlijk te zijn dan andere kansspelproducten. Het is daarom belangrijk welk loterij product gevaarlijker kan zijn. Er zijn instrumenten ontwikkeld om dat te onderzoeken.

Internationaal gezien behoren loterijen tot de populairste vormen van kansspelen waaraan miljoenen mensen deelnemen. Een gedeeltelijke verklaring voor de populariteit is dat het individuen een mogelijkheid geeft om een aanzienlijke geldprijs te winnen tegen een relatief lage investering. Loten zijn veel meer beschikbaar en makkelijker verkrijgbaar dan de meeste andere vormen van gokken. Met name vanwege de mogelijkheid / beschikbaarheid loten te kopen in zowel shops als bij online aanbieders.

Hoewel gezien als een veiliger vorm van gokken, hebben loterijen niettegenstaande het potentieel om bovenmatig gespeeld te worden. Met de liberalisering van het gokken in het algemeen en de loterij in het bijzonder wordt gokken genormaliseerd. Dit resulteert in het feit dat overheden aan de aanbieder een plicht tot verantwoordelijkheid (duty of responsiblility) opleggen. Dit resulteert in een aantal Responsible Gaming – principes die zijn ontwikkeld om de problemen van mogelijk vatbare individuen te helpen minimaliseren. Opgemerkt dient te worden dat er ook onderzoek is dat aangeeft dat de loterijdeelname kan aanzetten tot zowel meer gokken als problematisch spelen voor sommige individuen. Probleemspelen is een progressieve stoornis die vaak begint op een goedaardige wijze, maar kan escaleren als gevolg van bio-psychosociale (in het individu) en situationele (in het spel) factoren. Daarin ligt, rekening houdend met de groei van online kansspelactiviteiten aangeboden door loterijen een zekere grond van waarheid, en is specifieker op het terrein van internationale loterijen.

Gegeven de wettelijke veranderingen in Nederland worden de volgende vragen gesteld:

1. Aan welke elementen van de (goede doelen) loterijen zijn consumentenrisico's verbonden, in het bijzonder verslavingsrisico's? (Zie Chapter 2)

Terwijl het merendeel van de literatuur aangeeft dat het type spel of de manier van spelen (landbased vs. online gokken) is verbonden met problematisch/verslaafd spelen, blijven andere kritische factoren belangrijk in het ontstaan van verslaafd gedrag: structurele karakteristieken: frequentie van de gebeurtenis, wedfrequentie, duur van de gebeurtenis,



in-play wedden en de uitbetalingsinterval. Deze structurele factoren samen met biopsychosociale en omgevingsfactoren worden geassocieerd met aantrekkelijkheid van het spee en probleemspelen. Daarom is het belangrijk elk van deze elementen te onderzoeken in de nieuwe loterijvormen. Meer specifiek in sommige landen kunnen instant loterijen, krasloten problemen geven, maar onderzoek in Nederland laat geen problemen zien voor zover wij zien in het onderzoek daar naar.

2. Zal een toename van het aantal loterijaanbieders en de verruiming van de mogelijkheid van het spelaanbod, en daarmee naar verwachting ook een groter aantal trekkingen, reclame-uitingen en (online) spelconcepten, leiden tot hogere risico's voor de consument? (Zie Chapter 3)

Er is geen is geen lineaire relatie tussen het aantal loterijaanbieders, het aantal spelen en problematisch spelen. Hoewel een toename van beschikbaarheid en toegankelijkheid wordt gerelateerd aan sommige vormen van gokken (casino spelen, speelautomaten) legt de academische literatuur niet een relatie bij het aantal loterijaanbieders en verkooppunten. Echter, de relatie wordt complexer gegeven de verschillen in loterijproducten die online worden aangeboden (krasloten, loterijtrekkingen en interactieve online spelen). Dit is niet het geval in Nederland omdat loterijen niet online aangeboden mogen worden. Krasloten zijn niet toegestaan om online aan te bieden en ook interactieve loterijen zijn niet toegestaan. Echter verder complicerend kan zijn de belangrijke rol die het adverteren van producten kan hebben.

3. Indien er sprake is van een verhoogd risico, voldoet het huidige lichte regime ter voorkoming van consumentenrisico's dan in voldoende mate om de risico's op hetzelfde niveau te houden als voor opening van de markt? (Zie Chapter 4)

Empirisch onderzoek geeft aan dat het prevalentiecijfer voor probleemspelers in Nederland relatief laag is. Ondanks het feit dat 87% van de inwoners van 16 jaar of ouder in Nederland zegt te hebben gegokt, heeft slechts 0,3% de SOGS score voor problematisch spelen (Goudriaan, de Bruin & Koeter, 2009). Er moet echter opgemerkt worden dat de auteurs voorzichtig zijn in hun interpretatie van prevalentiecijfers vanwege een lage response. Of het huidige lichte regime voldoende zal zijn, hangt sterk af van de structurele karakteristieken van de nieuwe spelen en van de initiatieven die worden ontwikkeld. Wij hebben daarom belangrijke factoren benoemd die in overweging genomen dienen te worden ten aanzien van mogelijke strategieën om potentiele schadelijke gevolgen te minimaliseren. Daarnaast hebben wij een aantal methoden aangegeven die kunnen helpen in de ontwikkeling van sociaal verantwoorde online spelen en krasloten (bijvoorbeeld GAM-GaRD en ASTERIG), alsook een aanbeveling om een internationaal adviesorgaan te benoemen om de regelgevende instantie (Kansspelautoriteit) te ondersteunen.

4. Zo niet, welke maatregelen worden op basis van wetenschappelijk onderzoek of eventueel internationale best practices het meest efficiënt geacht om die risico te beperken? (Zie Chapter 5)

Er bestaan tegenwoordig talrijke maatregelen en initiatieven die betrekking hebben op verantwoord spelen (Responsible Gaming), bescherming van de speler en het minimaliseren van schade. Deze strategieën houden mede informatie in over "informed



choice" – informatie voor cliënten over strategieën om controle te houden, informatie te geven over problematisch spelen, het uitsluiten van prikkels om te voorkomen winsten opnieuw in te zetten, het geven van Responsible Gaming informatie/boodschappen, zelf-uitsluiting-programma's en het aanbieden van hulpdiensten voor individuen die hulp nodig hebben. Andere belangrijke zaken zijn: mogelijkheden voor geld- en tijdslimieten, verplichte spelonderbrekingen, strenge leeftijdscontrole-procedures, informatie over iemands speelgeschiedenis, data inzake normatieve feedback en het gebruik van pop-ups voor het gehele online aanbod. Daarnaast is er een belangrijke noodzaak voor sociaal verantwoorde marketing en training van (staf)medewerkers.

5. Met de komst van online loterijen in het verlengde van vraag 3: zijn er methoden om de mate van consumentenrisico's van loterijproducten te meten? (Zie Chapter 6)

Er bestaan twee veel gebruikte Responsible Gaming instrumenten die zijn ontworpen om de risico's van verschillende loterijen en online producten te onderzoeken (dat zijn ASTERIG en GAM-GaRD 3.0). Beide instrumenten zijn gevalideerd en zijn ontworpen en doorgelicht door internationale experts op het terrein van Responsible Gaming. De GAM-GaRD protocollen zijn aangepast voor meer verfijnde categorieën om risico's bij producten te bepalen. Het gebruik van deze instrumenten en procedures kan spelontwerpers en regelgevers helpen om beter te begrijpen welke spelfuncties potentiële risico's op verslavend gedrag vermeerderen of verminderen en wordt sterk aanbevolen.

Samenvatting en aanbevelingen

Alleen een toename en de beschikbaarheid en toegankelijkheid van loterijverkooppunten is niet de belangrijkste factor om probleemspelen in Nederland nader te duiden. Met name loterijaanbieders moeten competent zijn en kennis hebben van de kenmerken van de nieuwe spelen die wellicht vatbare spelers in risicovolle situaties kunnen brengen en buitensporig laten spelen. Effectieve Responsible Gaming strategieën moeten ontwikkeld worden. De volgende aanbevelingen worden gedaan aan aanbieders die beschikken over een vergunning:

- Een senior lid van het management team van elke aanbieder is tevens Responsible Gaming Coördinator;
- Alle medewerkers dienen, minimaal, een basistraining inzake problematisch spelen te volgen, het senior management dient een meer intensieve training te volgen;
- Aanbieders moeten de mogelijkheid hebben om een valide en betrouwbaar systeem te gebruiken teneinde alle nieuwe producten te screenen en om er zeker van te zijn dat alle spelen voldoen aan sociaal verantwoorde standaarden;
- Het adverteren van loterij producten dient te voldoen aan sociaal verantwoorde standaarden;
- Elke aanbieder dient te beschikken over een Responsible Gaming programma. Dit programma dient jaarlijks herzien te worden en is onderworpen aan herkeuring door de Kansspelautoriteit;
- Aanbieders dienen richtlijnen te ontwikkelen ten aanzien van de betrokkenheid van belanghebbenden, training voor verkooppunten, informatie voor de speler, verwijzing naar hulpverlening, verantwoorde advertenties en marketing communicatieprogramma's, handhaving van leeftijdsbeperkingen en zelf-uitsluiting programma's;



- Aanbieders dienen aangemoedigd te worden om experts op het gebied van Responsible Gaming te consulteren wat betreft de ontwikkeling van het sociaal verantwoord spelen / en de bescherming van de speler beleid (dergelijk beleid is o.a. ontwikkeld door de European Lottery Association, de World Lottery Association en de Global Gambling Guidance Groep (G4);
- Online aanbieders bieden beschermende maatregelen voor de speler aan te bieden. Dit geeft de speler juiste en gebalanceerde informatie geeft en wordt geïnformeerd over te maken keuzes, mogelijkheden voor tijds- en geldlimieten, cooling-off periodes en mogelijkheden tot zelf-uitsluiting;
- Aanbieders dienen een Responsible Gaming beleid te ontwikkelen dat consistent is met het beleid van de European Lottery Association, World Lotterij Association en/of andere Responsible Gaming standaarden.

8. References

Abbott, M.W. (2007). Situational factors that affect gambling behavior. In G. Smith, D. Hodgins & R. Williams (Eds.), Research and Measurement Issues in Gambling Studies(pp.251-278). New York: Elsevier.

Abbott, M.W., Volberg, R.A., Bellringer, M. & Reith, G. (2004). A Review of Research Aspects of Problem Gambling. London: Responsibility in Gambling Trust.

Amey, B. (2001). People's participation in and attitudes to gaming, 1985-2000: Final results of the 2000 survey. Wellington, New Zealand: Department of Internal Affairs.

Auer, M. & Griffiths, M.D. (2013). Voluntary limit setting and player choice in most intense online gamblers: An empirical study of gambling behaviour. *Journal of Gambling Studies*, 29, 647-660.

Auer, M. & Griffiths, M.D. (2015a). Testing normative and self-appraisal feedback in an online slot-machine pop-up message in a real-world setting. *Frontiers in Psychology*, 6, 339. doi: 10.3389/fpsyg.2015.00339.

Auer, M. & Griffiths, M.D. (2015b). The use of personalized behavioral feedback for problematic online gamblers: An empirical study. *Frontiers in Psychology*, 6, 1406. doi: 10.3389/fpsyg.2015.01406.

Auer, M. & Griffiths, M.D. (2016). Self-reported losses versus actual losses in online gambling: An empirical study. *Journal of Gambling Studies*. Epub ahead of print, doi:10.1007/s10899-016-9648-0.

Auer, M., Malischnig, D. & Griffiths, M.D. (2014). Is 'pop-up' messaging in online slot machine gambling effective? An empirical research note. *Journal of Gambling Issues*, 29, 1-10.

Barnes, G., Welte, J., Tidwell, M-C., & Hoffman, J. (2011). Journal of Gambling Studies, 27, 575-586.

Binde, P. (2009). Exploring the impact of gambling advertising: An interview study of problem gamblers. *International Journal of Mental Health and Addiction*, 7(4), 541-554.



Binde, P. (2014). Gambling advertising: A critical research review. London: Responsible Gambling Trust.

Blanco, C., Blaszczynski, A., Clement, R., Derevensky, J.L., Goudriaan, A.E., Griffiths, M.D., Hodgins, D., van Holst, R., Ibanez, A., Martins, S., Moersen, C., Molinaro, S., Parke, A., Peren, F.W., Petry, N. & Wardle, H. (2013). Assessment Tool to Measure and Evaluate the Risk potential of Gambling Products, ASTERIG: A global validation. *Gambling Law Review and Economics*, 17, 635-642.

Blanco, C., Clement, R., Derevensky, J.L., Goudriaan, A.E., Griffiths, M.D., Hodgins, D., van Holst, R., Liesching, M, Moersen, C., Molinaro, S., Parke, A., Peren, F.W., Perez-Fuentes, G. (2016). *Safeguarding the Protection of Minors and Playerswith Respect to Commercial Gambling in Germany - 2.0.* Berlin: International Research Institute for Gambling and Gaming.

Blaszczynski, A., Cowley, E., Anthony, C., & Hinsley, K. (2015). Breaks in play: Do they achieve intended aims? *Journal of Gambling Studies*, Epub ahead of print. doi:10.1007/s10899-015-9565-7.

Blaszczynski, A., Ladouceur, R. & Nower, L. Self-exclusion: A proposed gateway to a treatment model. *International Gambling Studies*, 7, 59-71.

Braverman, J., Tom, M.A., & Shaffer, H.J. (2014). Accuracy of self-reported versus actual online gambling wins and losses. *Psychological Assessment*, 26(3), 865-877.

Burns, A., Gillett, P. Rubenstein, M. & Gentry, J.W. (1990). An exploratory study of lottery playing, gambling addiction and links to compulsive consumption. *Advances in Consumer Research*, 17, 298-305.

Calado, F., Alexandre, J. & Griffiths, M.D. (2016). Prevalence of adolescent problem gambling: A systematic review of recent research. *Journal of Gambling Studies*, Epub ahead of print. doi: 10.1007/s10899-016-9627-5

Collins, P. (2007). Gambling and governance. In G. Smith, D. Hodgins & R. Williams (Eds.), Research and Measurement Issues in Gambling Studies. pp.617-639. New York: Elsevier.

Collins, P. & Barr, G. (2006). *Gambling and Problem Gambling in South Africa: The National Prevalence Study 2006*. National Centre For The Study of Gambling at The University of Cape Town.

Cornish, D.B. (1978). Gambling: A review of the literature and its implications for policy and research. London: Her Majesty's Stationery Office.

Crewe-Brown, C., Blaszczynski, A. & Russell, A. (2014). Prize level and debt size: Impact on gambling behaviour. *Journal of Gambling Studies*, 30, 639-651.

DeFuentes-Merillas, L., Koeter, M.W.J., Bethlehem, J., Schippers, G.M., and Van Den Brink, W.(2003). Are scratchcards addictive? The prevalence of pathological scratchcard gambling among adult scratchcard buyers in the Netherlands, *Addiction*, 98, 725-731.



Delfabbro, P.H. (2002). The Distribution of Electronic Gaming Machines (EGMs) and Gambling-related Harm in Metropolitan Adelaide. Report Commissioned by the Independent Gambling Authority of South Australia.

Delfabbro, P.H., King, D.L & Griffiths, M.D. (2012). Behavioural profiling of problem gamblers: A critical review. *International Gambling Studies*, 12, 349-366.

Derevensky, J. (2012). Teen gambling: Understanding a growing epidemic. New York: Rowman & Littlefield Publishing.

Derevensky, J., Sklar, A., Gupta, R., & Messerlian, C. (2010). An empirical study examining the impact of gambling advertisements on adolescent gambling attitudes and behaviors. *International Journal of Mental Health and Addiction*, 8(1), 21-34.

Desai, R.A. & Potenza, M.N. (2008). Gender differences in the associations between past-year gambling problems and psychiatric disorders. *Social Psychiatry and Psychiatric Epidemiology*, 43, 173-183.

Dickerson, M.G. (1984). Compulsive gamblers. Longman: London.

Felsher, J., Derevensky, J. & Gupta, R. (2003). Parental influences and social modeling of youth lottery participation. *Journal of Community and Applied Social Psychology*, 13, 361-377.

Felsher, J., Derevensky, J. & Gupta, R. (2004a). Lottery playing amongst youth: Implications for prevention and social policy. *Journal of Gambling Studies*, 20(2), 127-153.

Felsher, J., Derevensky, J. & Gupta, R. (2004b). Lottery participation by youth with gambling problems: Are lottery tickets a gateway to other gambling venues? *International Gambling Studies*, 4(2), 109-126.

Forrest, D.K, McHale, I. & Parke, J. (2009). Appendix 5: Full report of statistical regression analysis. In Ipsos MORI (2009), *British Survey of Children, the National Lottery and Gambling 2008-09:* Report of a quantitative survey. London: National Lottery Commission.

Forsström, D., Hesser, H., & Carlbring, P. (2016). Usage of a responsible gambling tool: A descriptive analysis and latent class analysis of user behavior. *Journal of Gambling Studies*, 3, 889-904.

Goudriaan, A. E., de Bruin, D. & Koeter, M.W.J. (2009). In G. Meyer, T. Hayer & M. Griffiths (Eds.). *Problem gambling in Europe – Challenges, prevention and interventions*. New York: Springer Books

Grant, J. E., & Kim, S.W. (2001). Demographic and clinical features of 131 adult pathological gamblers. *Journal of Clinical Psychiatry*, 62, 957-962.

Griffiths, M.D. (1993). Fruit machine gambling: The importance of structural characteristics. *Journal of Gambling Studies*, *9*, 101-120.

Griffiths, M.D. (1994). The role of cognitive bias and skill in fruit machine gambling. *British Journal of Psychology*, 85, 351-369.



Griffiths, M.D. (1995). Adolescent gambling. London: Routledge.

Griffiths, M.D. (1999a). The psychology of the near miss (revisited): A comment on Delfabbro and Winefield. *British Journal of Psychology*, 90, 441-445.

Griffiths, M.D. (1999b). Gambling technologies: Prospects for problem gambling. *Journal of Gambling Studies*, 15, 265-283.

Griffiths, M.D. (2000). Scratchcard gambling among adolescent males. *Journal of Gambling Studies*, 16, 79-91.

Griffiths, M.D. (2001a). Good practice in the gaming industry: Some thoughts and recommendations. *Panorama (European State Lotteries and Toto Association)*, 7, 10-11.

Griffiths, M.D. (2003). Internet gambling: Issues, concerns and recommendations. *CyberPsychology and Behavior*, 6, 557-568.

Griffiths, M.D. (2004). Betting your life on it: Problem gambling has clear health related consequences. *British Medical Journal*, 329, 1055-1056.

Griffiths, M.D. (2005). Does advertising of gambling increase gambling addiction? *International Journal of Mental Health and Addiction*, 3(2), 15-25.

Griffiths, M.D. (2007). Gambling psychology: Motivation, emotion and control, *Casino and Gaming International*, (3)4, 71-76.

Griffiths, M.D. (2008). *Impact of high stake, high prize gaming machines on problem gaming.* Birmingham: Gambling Commission.

Griffiths, M.D. (2010). Crime and gambling: A brief overview of gambling fraud on the Internet. *Internet Journal of Criminology*. Located at: http://www.internetjournalofcriminology.com/Griffiths %20Gambling Fraud Jan 2010.pdf

Griffiths, M.D. (2012a). Mind games (A brief psychosocial overview of in-play betting. *i-Gaming Business Affiliate*, June/July, 44.

Griffiths, M.D. (2012b). Internet gambling, player protection and social responsibility. In R. Williams, R. Wood & J. Parke (Ed.), *Routledge Handbook of Internet Gambling* (pp.227-249). London: Routledge.

Griffiths, M.D. (2015). Adolescent gambling and gambling-type games on social networking sites: Issues, concerns, and recommendations. *Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport,* 33(2), 31-37.

Griffiths, M.D. & Barnes, A. (2008). Internet gambling: An online empirical study among student gamblers. *International Journal of Mental Health and Addiction*, 6, 194-204.



Griffiths, M.D. & Parke, J. (2002). The social impact of internet gambling. *Social Science Computer Review*, 20, 312-320.

Griffiths, M.D. & Parke, J. (2003). The environmental psychology of gambling. In G. Reith (Ed.), *Gambling: Who wins? Who Loses?* pp. 277-292.New York: Prometheus Books.

Griffiths, M.D. & Parke, J. (2010). Adolescent gambling on the Internet: A review. *International Journal of Adolescent Medicine and Health*, 22, 59-75.

Griffiths, M.D., Wardle, J., Orford, J., Sproston, K. & Erens, B. (2009). Socio-demographic correlates of internet gambling: findings from the 2007 British Gambling Prevalence Survey. *CyberPsychology and Behavior*, 12, 199-202.

Griffiths, M.D., Wardle, J., Orford, J., Sproston, K. & Erens, B. (2011). Internet gambling, health. Smoking and alcohol use: Findings from the 2007 British Gambling Prevalence Survey. *International Journal of Mental Health and Addiction*, 9, 1-11.

Griffiths, M.D. & Wood, R.T.A. (2001). The psychology of lottery gambling. *International Gambling Studies*, 1, 27-44.

Griffiths, M.D. & Wood, R.T.A. (2008). Responsible gaming and best practice: How can academics help? *Casino and Gaming International*, 4(1), 107-112.

Griffiths, M.D., Wood, R.T.A. & Parke, J. (2008a). Reducing addiction risk in developing online games. World Online Gambling Law Report, 7 (5), 15-16.

Griffiths, M.D., Wood, R.T.A. & Parke, J. (2008b). Social responsibility and GAM-GaRD: Making games safer. *Panorama*,29, 18-19.

Griffiths, M.D., Wood, R.T.A. & Parke, J. (2009). Social responsibility tools in online gambling: A survey of attitudes and behaviour among Internet gamblers. *CyberPsychology and Behavior*, 12, 413-421.

Griffiths, M.D., Wood, R.T.A., Parke, J. & Parke, A. (2006). Dissociative states in problem gambling. In C. Allcock (Ed.). *Current Issues Related To Dissociation*. pp.27-37. Melbourne: Australian Gaming Council.

Hanss, D., Mentzoni, R.A., Griffiths, M.D., & Pallesen, S. (2015). The impact of gambling advertising: Problem gamblers report stronger impacts on involvement, knowledge, and awareness than recreational gamblers. *Psychology of Addictive Behaviors*, 29, 483-491.

Harris, A. & Griffiths, M.D. (2016). A critical review of the harm-minimisation tools available for electronic gambling. *Journal of Gambling Studies*. Epub ahead of print, DOI 10.1007/s10899-016-9624-8.

Hing, N., Cherney, L., Blaszczynski, A., Gainsbury, S. M., & Lubman, D. I. (2014). Do advertising and promotions for online gambling increase gambling consumption? An exploratory study. *International Gambling Studies*, 14(3), 394-409.



International Gaming Research Unit (2007). The global online gambling report: An exploratory investigation into the attitudes and behaviours of internet casino and poker players. Report for eCOGRA (e-Commerce and Online Gaming Regulation and Assurance).

Ipsos MORI (2009). British Survey of Children, the National Lottery and Gambling 2008-09: Report of a quantitative survey. London: National Lottery Commission.

Jacobs, D. (1986). A general theory of addictions: A new theoretical model. *Journal of Gambling Studies*, 2, 15-31.

Kalke, J. & Buth, S. (2011). Wissenschaftlicher Kenntnisstandüber die Effekte von Präventionsmassnahmen im Glücksspielbereich. In: Glücksspiel und Spielerschutz in Österreich. Empirische Erkenntnisse zum Spielverhalten der Bevölkerung und zur Prävention der Glücksspielsucht. Freiburg im Breisgau, 31–58.

King, D.L., Delfabbro, P.H. & Griffiths, M.D. (2010). The convergence of gambling and digital media: Implications for gambling in young people. *Journal of Gambling Studies*, 26, 175-187.

Ladd, G. T., & Petry, N. M. (2002). Disordered gambling among university-based medical and dental patients: A focus on Internet gambling. *Psychology of Addictive Behaviors*, 16(1), 76-79.

Ladouceur, R. (2013). Self-exclusion and the court: Recent developments and their implication for responsible gambling. Paper presented at the New Horizons Conference, Vancouver.

Ladouceur, R., Sylvain, C., & Gosselin, P. (2007). Self-exclusion program: A longitudinal evaluation study. *Journal of Gambling Studies*, 23, 85-94

LaPlante, D.A., Nelson, S.E., LaBrie, R.A., & Shaffer, H.J. (2011). Disordered gambling, type of gambling and gambling involvement in the British Gambling Prevalence Survey 2007. *European Journal of Public Health*, 21, 532–537.

LaPlante, D. & Shaffer, H.J. (2007). Understanding the influence of gambling opportunities: Expanding exposure models to include adaptation. *American Journal of Orthopsychiatry* 77, 616–623.

Lapuz, J. & Griffiths, M.D. (2010). The role of chips in poker gambling: An empirical pilot study. *Gambling Research*, 22(1), 34-39.

Lea, S. E. G., Tarpy, R. M. & Webley, P. (1987). *The individual in the economy*. Cambridge: Cambridge University Press.

Lopez-Gonzalez, H. & Griffiths, M.D. (2016). Is European online gambling regulation adequately addressing in-play betting advertising? *Gaming Law Review and Economics*, 20, 495-503.

Marshall, D.C., & Baker, R.G.V. (2002). The evolving market structures of gambling: Case studies modelling the socio-economic assignment of gaming machines in Melbourne and Sydney, Australia. *Journal of Gambling Studies*, 18, 273-291.



McBride, J., &Derevensky, J. (2009). Internet gambling behaviour in a sample of online gamblers. *International Journal of Mental Health and Addiction*, 7, 149-167.

Meyer, G., Hayer, T. & Griffiths, M.D. (2009). Problem Gaming in Europe: Challenges, Prevention, and Interventions. New York: Springer.

Miedl, S.F., Peters, J., & Büchel, C. (2012). Altered neural reward representations in pathological gamblers revealed by delay and probability discounting. *Archives of General Psychiatry, 69,* 177-186.

National Research Council. (1999). *Pathological gambling: A critical review*. Washington, D.C.: National Academy Press.

Nowatzki, N., & Williams, R. (2002). Casino self-exclusion programmes: A review of the issues. *International Gambling Studies*, 2, 3-26.

Oehler, S., Banzer, R., Gruenerbl, A., Malischnig, D., Griffiths, M.D. & Haring, C. (2016). Principles for developing benchmark criteria for staff training in responsible gambling. *Journal of Gambling Studies*, Epub ahead of print. doi: 10.1007/s10899-016-9617-7

Ofcom (2013). Trends in advertising activity – Gambling. London: Ofcom.

Orford, J. (2011). An unsafe bet. The dangerous rise of gambling and the debate we should be having. Chichester.

Parke, J. & Griffiths, M.D. (2006). The psychology of the fruit machine: The role of structural characteristics (revisited). *International Journal of Mental Health and Addiction*, 4, 151-179.

Parke, J. & Griffiths, M.D. (2007). The role of structural characteristics in gambling. In G. Smith, D. Hodgins & R. Williams (Eds.), *Research and Measurement Issues in Gambling Studies*.211-243. New York: Elsevier.

Parke, J., Griffiths, M.D. & Parke, A. (2007). Positive thinking among slot machine gamblers: A case of maladaptive coping? *International Journal of Mental Health and Addiction*, 5, 39-52.

Parke, J., & Parke, A. (2013). Does size really matter? A review of the role of stake and prize levels in relation to gambling-related harm. *The Journal of Gambling Business and Economics*, 7(3), 77-110.

Peren, F.W. (2011). Assessment tool to measure and evaluate the risk potential of gambling products: Asterig. *Gaming Law Review and Economics*, 15(11), 671-679.

Petry, N. M., Stinson, F. S., & Grant, B. F. (2005). Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 66, 564-574.

Pearce, J., Mason, K., Hiscock, R., & Day, P. (2008). A national study of neighbourhood access to gambling opportunities and individual gambling behaviour. *Journal of Epidemiology & Community Health*, 62, 862-868.



Petry, N. (2005). *Pathological gambling: Etiology, comorbidity and treatment*. Washington, D.C.: American Psychological Association.

Planzer, S. & Wardle, H. (2011). The comparative effectiveness of regulatory approaches and the impact of advertising on propensity for problem gambling. Report prepared for Responsible Gambling Fund.

Productivity Commission. (1999). Australia's gambling industries. Report No. 10. Canberra: AusInfo.

Productivity Commission. (2010). Gambling. Report No. 50. Canberra: AusInfo.

Power, Y., Goodyear, B., & Crockford, D. (2012). Neural correlates of pathological gamblers Preference for immediate rewards during the Iowa Gambling Task: An fMRI Study. *Journal of Gambling Studies*, 28, 623-636.

Responsible Gambling Center for the Advancement of Best Practices (RGC). (2012). Responsible Gambling for Lotteries. Insight 2012 Report for the Advancement for the Advancement of Best Practices. Toronto: Responsible Gambling Council of Ontario.

Schull, N. (2012). Addiction by design: Machine gambling in Las Vegas. New Jersey: Princeton University Press.

Sevigny, S., Cloutier, M., Pelletier, M. &Ladouceur, R. (2005). Internet gambling: Misleading payout rates during the "demo" period. *Computers in Human Behavior*, 21, 153-158.

Shaffer, H.J., LaPlante, D.A., LaBrie, R.A., Kidman, R.C., Donato, A.N. & Stanton, M.V. (2004). Towards a syndrome model of addiction: Multiple expressions, common etiology. *Harvard Review of Psychiatry*, 12, 1-8.

Shead, N.W., Derevensky, J., & Gupta, R. (2010). Risk and protective factors associated with youth problem gambling. *International Journal of Adolescent Medicine and Health*, 22(1), 39-58

Skinner, B.F. (1953). Science and human behaviour. New York: Free Press.

Smeaton, M. & Griffiths, M.D. (2004). Internet gambling and social responsibility: An exploratory study, *CyberPsychology and Behavior*, 7, 49-57.

St-Pierre, R., Walker, D. M., Derevensky, J & Gupta, R. (2014). How availability and accessibility of gambling venues influence problem gambling: A review of the literature. *Gaming Law Review and Economics*, 18(2), 150-172.

Storer, J., Abbott, M., & Stubbs, J. (2009). Access or adaptation? A meta-analysis of surveys of problem gambling prevalence in Australia and New Zealand with respect to concentration of electronic gaming machines. *International Gambling Studies*, 9, 225–244.

Tremblay, N., Boutin, C. &Ladouceur, R. (2008). Improved self-exclusion program: Preliminary results. *Journal of Gambling Studies*, 24, 505-518.



van Holst, R.J., Veltman, D.J., Buchel, C., van den Brink, W., & Goudriaan, A.E. (2012). Distorted expectancy coding in problem gambling: Is the addictive in the anticipation? *Biological Psychiatry*, 71, 741–748.

Volberg, R.A. (2004). Fifteen years of problem gambling prevalence research. What do we know? *Journal of Gambling Issues*, 10.

Volberg, R., Gupta, R., Griffiths, M.D., Olason, D. &Delfabbro, P.H. (2010). An international perspective on youth gambling prevalence studies. *International Journal of Adolescent Medicine and Health*, 22, 3-38.

Wardle, H. & Griffiths, M.D. (2011). Defining the 'online gambler': The British perspective. World Online Gambling Law Report, 10(2), 12-13.

Wardle, H., Moody, A., Griffiths, M.D., Orford, J. & and Volberg, R. (2011). Defining the online gambler and patterns of behaviour integration: Evidence from the British Gambling Prevalence Survey 2010. *International Gambling Studies*, 11, 339-356.

Wardle, H., Moody. A., Spence, S., Orford, J., Volberg, R., Jotangia, D., Griffiths, M.D., Hussey, D. and Dobbie, F. (2011). *British Gambling Prevalence Survey 2010*. London: The Stationery Office.

Wardle, H., Seabury, C., Ahmed, H., Payne, C., Byron, C., Corbett, J. & Sutton, R. (2014). *Gambling behaviour in England and Scotland: Findings from the Health Survey for England 2012 and Scotlish Health Survey 2012*. London: NatCen.

Wardle, H., Sproston, K., Orford, J., Erens, B., Griffiths, M.D., Constantine, R. & Pigott, S. (2007). *The British Gambling Prevalence Survey 2007*. London: The Stationery Office.

Welte, J., Barnes, G., Tidwell, M-C., Hoffman, J. & Wieczorek, W. (2015). Gambling and problem gambling in the United States: Changes between 1999 and 2013. *Journal of Gambling Studies, 31*, 695-715.

Wood, R.T.A. & Griffiths, M.D. (2007). A qualitative investigation of problem gambling as an escape-based coping strategy. *Psychology and Psychotherapy: Theory, Research and Practice*, 80, 107-125.

Wood, R.T.A. & Griffiths. M.D. (2008). Why Swedish people play online poker and factors that can increase or decrease trust in poker websites: A qualitative investigation. *Journal of Gambling Issues*, 21, 80-97.

Wood, R.T.A. & Griffiths, M.D. (2010). Social responsibility in online gambling: Voluntary limit setting. *World Online Gambling Law Report*, 9(11), 10-11.

Wood, R.T.A., Griffiths, M.D. & Parke, J. (2007). The acquisition, development, and maintenance of online poker playing in a student sample. *CyberPsychology and Behavior*, 10, 354-361.

Wood, R. T., & Williams, R. J. (2007). Problem gambling on the Internet: Implications for internet gambling policy in North America. *New Media and Society*, *9*(3), 520-542.



Wood, R. T. A., & Wohl, M. J. A. (2015). Assessing the effectiveness of a responsible gambling behavioural feedback tool for reducing the gambling expenditure of at-risk players. *International Gambling Studies* 15(2), 1-16.

Wulfert, E., Franco, C., Williams, K., Roland, B. & Maxson, J.H. (2008). The role of money in the excitement of gambling. *Psychology of Addictive Behavior*, 22, 380 –390.