

# ***The Relationship Between Alcohol and Gambling Behaviours***

A literature review commissioned by Alcohol Concern, Cymru

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## Executive Summary

This multi-disciplinary literature review explores the literature on gambling and alcohol behaviours in the UK including Wales and internationally. In the light of concerns expressed about significant health problems associated with problem gambling and alcohol addiction the review considers the topic from a sociological and cultural perspective as well as from a clinical and treatment focus. Gambling and alcohol research and literature is also reviewed from the perspective of gambling operators and their corporate social responsibility and responsible gambling practices. The review finally proposes recommendation for further research in this field.

### Key findings within the review:

- o Health survey prevalence data have identified that participation in gambling is higher amongst more frequent drinkers and those who engage in multiple forms of gambling are more likely to consume more units of alcohol on their heaviest drinking day. However, these data do not indicate whether the drinking and gambling are taking place at the same time.
- o Whilst there is more research on comorbidity and problem gambling, there is relatively little sociological or socio-anthropological research on 'normal' gambling behaviour in different sectors and the extent to which and way in which it is combined with alcohol consumption.
- o Destination gambling venues such as land-based casinos and bingo halls are environments where it is possible to observe and, to some extent, to control how drinking and gambling are combined. Operators are required by the regulators to prevent customers who are drunk from gambling. However, there is little research looking at gambling and drinking behaviour in these venues.
- o By contrast in two sectors of the industry which are of current concern to the regulator- machine gambling in betting shops and on-line gambling – it is much harder to observe behaviour. In the former case, the drinking (if it is happening) would be happening at a different venue and in the latter case, because the gambling can be easily hidden (and the drinking as well if both are happening at home). In both these cases there is again little research, although some studies suggest that drinking and on-line gambling are commonly combined.
- o The level of reporting on corporate social responsibility (CSR) and responsible gambling practices by gambling operators shows substantial variations in the nature and extent of reporting. The gambling industry has adopted a wide range of CSR initiatives, some collaboratively, on responsible gambling. However, there are particular concerns around the impact of marketing of gambling on young and vulnerable people especially in relation to aggressive promotions online.
- o International research has identified a consistent theme of alcohol use contributing significantly to impaired control of gambling, and there is a relationship between gambling and binge drinking. Research has also shown that there is a tendency to drink in response to 'wins'. Environmental, social and cultural factors significantly influence gambling and alcohol consumption. Other research has shown that the extensive use of alcohol and drugs is a significant factor and risk predictor linked to problematic gambling.
- o Gender is a further significant factor when discussing gambling and drinking with higher prevalence levels amongst young males. However research has shown an increase in female participation, particularly online and where there are instant wins. Research undertaken with university students found that student who drink to cope and have other indicators of alcohol problems also gamble to cope, gamble to win and have higher involvement and gambling related problems.

- o Some research has identified the positive benefits of gambling and drinking in terms of beneficial health effects, enjoyment, and social enhancement
- o When considering treatments for Gambling disorders, whilst the mainstay treatment is currently based on psychosocial interventions and pharmacotherapy for co-morbid conditions, there is an increasing understanding of the overlap of genetics and brain mechanisms involved in Alcohol Use Disorders and gambling. This implies that the treatments used in alcohol may be transferrable in principle to gambling disorders.

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## **Introduction**

This report has been commissioned by Alcohol Concern Cymru and is a collaborative project between a team of researchers from the University of Roehampton Business School London, and the Royal College of Psychiatrists in Wales. The report is a multi-disciplinary review of current and recent research literature review of the field of gambling and alcohol behaviours.

The report and project is as a consequence of a previous Alcohol Concern publication 'A losing bet: investigating parallels and shared solutions' (Leyshon M & Sakhuja R 2013)<sup>1</sup>. This earlier report highlighted concerns about the significant health problems that are associated with problematic gambling and the misuse of alcohol. The report identified a range of social and clinical issues such as, for example, the current abundance of gambling marketing targeted at a female audience. The report also considered increasingly strong evidence that there was an association between problematic gambling and heavy drinking. The report put forward eight key recommendations as a consequence with a particular focus on the need for further research into the relationship between alcohol abuse and problem gambling. The report aimed to influence policy, such as the consideration of the development of a database to capture the scope of problems associated with gambling, especially for the young and vulnerable people, and to develop more research in order to assess the impacts of treatment of gambling disorders alongside the treatment of alcohol problems.

In response to the issues and some of the key questions raised in the 'A Losing Bet?' report, this literature is therefore intended to offer a comprehensive review of literature and research exploring the relationship between alcohol consumption and gambling adopting a multi-disciplinary approach to this complex area of study. The review will consider the topic from a sociological and cultural perspective as well as from a clinical and treatment perspective considering research into addictions and co-morbidity. It will also consider the issues from the perspective of gambling operators in terms of their corporate social responsibility with particular regard to responsible gambling and drinking. The review will also consider the cultural context of alcohol consumption and gambling in Wales and the UK as well as from international perspectives and research.

Research from the USA, Canada, and Australasia will inform the analysis of the literature particularly from academic journals, and reports. There will be a review of research into prevalence surveys and health surveys to identify trends in behaviour. It is also intended that this literature review will offer a foundation for developing further collaborate academic research in the field as well as to inform future regulatory policy. It is also intended that the review will assist businesses in the gambling sector to develop further their responsible business practices within their operations as well as for their CSR policies especially in relation to alcohol. This review finally offers an overview of the literature into gambling and alcohol behaviours exploring some of the support and treatment currently being offered on the NHS and other providers.

### **Literature review methodology**

The literature search was undertaken by the team of researchers at University of Roehampton Business School. A central database of related articles and resources was established by accessing the following sources:

**Electronic bibliographic databases** e.g. Emerald; EBSCO; Sage; Business Source Premier; Science Direct.

**Grey literature:** non-academic publications, research and technical reports by government departments and regulatory bodies including the Gambling Commission, and non-governmental organisations. Reports and press releases by trade associations in the gambling sector.

**Reference lists:** taken from primary review articles and also collated through contact with other know scholars/professionals working in the field;

**International policy:** of comparable international jurisdictions in terms of both legislation/policy and other official government documentation relating to gambling.

**The internet:** using online search engines such as: Google Scholar, Web of knowledge, Ingenta, BIDS.

## **Gambling prevalence and alcohol consumption – the social context**

Gambling is a widely practiced activity in the UK. Whilst there are no comparable figures collected in Wales, analysis of participation in gambling in the Health Survey for England 2012 (NatCen 2013)<sup>2</sup> and the Gambling Behaviour in England & Scotland Survey 2012 (Wardle et al 2014)<sup>3</sup> indicates that 65% of English and Scottish adults had gambled in the last year, 43% on activities other than the National lottery. The British Gambling Industry as regulated by the Gambling Commission generated a gross gambling yield of £6.8bn in the year up to March 2014 (an increase of 6% on the previous year) (Gambling Commission, 2014)<sup>4</sup>. This figure underestimates the total size of the sector since currently 85% of the domestic remote gambling sector is regulated overseas. This will change under new legislation enacted this year when remote gambling will be licensed at the point of consumption (Gambling Commission Annual Report and Accounts, 2013/14)<sup>5</sup>. These figures also do not include gaming machines in pubs, clubs and family entertainment centres which operate under local authority permits.

Gambling in the UK was transformed by the Gambling Act 2005. The act took what has been called a commercial (Sanders 2011<sup>6</sup>, Reith 2003<sup>7</sup>) or risk (Kingma 2010<sup>8</sup>) perspective. This takes the view that gambling is a socially acceptable adult activity which can contribute to economic development. An example of the economic contribution that gambling offers, the trade association for bookmakers, the Association of British Bookmakers (ABB), commissioned a report in 2012 which assessed the contribution of betting shops to the UK economy<sup>9</sup>.

*“Cebr discovered, though extensive investigation and economic modelling of the latest official data that the betting shop industry accounts for approximately 0.2 per cent of UK GDP. This equates with an absolute GVA contribution of almost £2 billion in 2009”<sup>10</sup>.*

In 2013 the ABB also commissioned Deloitte to measure the economic contribution of the betting industry and some of the key messages of the report include: the British Betting Industry remains a key contributor to the UK economy having directly supported around 38,000 FTE jobs in 2011 contributing around £2.3 billion toward GDP; the sector is smaller than in 2008 mainly due to industry specific factors such as the shift to remote betting; the retail component contributed the equivalent level of tax as it did in 2008<sup>11</sup>.

Regardless of the economic benefits of gambling, there are risks to vulnerable people (the young and problem and at risk gamblers) which need to be mitigated by legislation. This approach is contrasted with a public health perspective approach to regulation found in other jurisdictions (such as Australia) (Sanders 2011<sup>12</sup>, Reith 2003<sup>13</sup>). The commercial perspective has been criticised for focusing policy, and research to support policy, too much on individual pathological behaviour and not investigating wider social processes that contribute to individual behaviour (Hancock and Hanrahan 2015<sup>14</sup>, Cassidy et al 2013<sup>15</sup>, Cosgrave 2010<sup>16</sup>). In this section we will review research which looks at the social context of gambling, in relation to the social context of alcohol consumption.

Different groups in society are drawn to different modes of gambling. This section will look at the main different modes in turn. Research studies are sparse to inform this discussion. The Health Survey prevalence data indicates that participation in gambling is higher amongst more frequent drinkers and that those who engage in multiple forms of gambling are more likely to consume more units of alcohol on their heaviest drinking day (NatCen 2014)<sup>17</sup>. But this tells us nothing about how gambling behaviour

and drinking behaviour are linked: whether people are gambling when they are also drinking or how much they are drinking when they are gambling.

### Betting shops

There are 9100 betting shops in the UK (Gambling Commission 2014<sup>18</sup>). Whilst this number is roughly stable since 2011, numbers of betting shops in High Street locations grew during the recession (after 2008) when companies bought up the premises of failed retailers (Key Note Ltd, 2013<sup>19</sup>). This has led to concerns that betting shops are clustered in areas of high on the Index of Multiple Deprivation and that local authorities have little opportunity to control this development (Hancock and Hanrahan 2015<sup>20</sup>).

The traditional activities of betting shops are in decline. Turnover on off-course betting on horse and dog racing has declined by £569m and £134m respectively (Gambling Commission 2014<sup>21</sup>). Betting on football and numbers shows a steady increase, although the scale of football betting varies according to whether there is a major tournament. However, gaming machines have driven revenue growth (Key Note Ltd 2013<sup>22</sup>); they now provide half the revenue of bookmakers (Hancock and Hanrahan 2015<sup>23</sup>).

Gaming machines in betting shops are controversial. Almost all machines, 34,436 out of 34,651, (Gambling Commission 2014<sup>24</sup>) are classified as B2 (although they may offer B2 and B3 modes of play). B2 games allow a maximum stake of £100 per button press (B3 and B4 games allow a maximum stake of £2.00 and C games a maximum stake of £1.00). They are not permitted in most other gambling venues. (There are 180 B2 machines in Casinos out of 2901 in total) (Gambling Commission, 2014<sup>25</sup>; Hancock and Hanrahan, 2015<sup>26</sup>).

Looking at the Health survey gambling prevalence statistics for England 2012 (NatCen 2013)<sup>27</sup>, betting shop clients are predominantly male. The players of gaming machines in betting shops are most likely to be young men (12% of male 16-24 year olds participated in the last year compared with 3% participants in the total sample). Of particular concern is the higher than average participation by unemployed people (7%).

NatCen has recently conducted a survey of 4000 respondents with loyalty cards for Ladbrokes, William Hill or Paddy Power (Wardle et al, 2014<sup>28</sup> see also review by Hancock and Hanrahan 2015<sup>29</sup>). A higher proportion of their respondents were likely to gamble at least once a week and to be of non-white origin and live in deprived areas compared with the 2010 British Gambling Prevalence Study<sup>30</sup>. 23% of the loyalty card respondents were classified as problem gamblers and a further 24% were moderate risk gamblers. Problem gambling and at risk gambling were highest amongst those with lower incomes.

Whilst alcohol is not sold or consumed in betting shops, their High Street locations mean that customers go to the betting shop from a pub or club or after drinking at home. We could find no studies that have investigated whether and to what extent people are gambling in betting shops after they have been drinking. The only circumstantial evidence comes from a Nat Cen study of patterns of play on machines in bookmakers (Wardle et al 2014<sup>31</sup>, see also Hancock and Hanrahan 2015<sup>32</sup>). Mean stake size was shown to rise in the evening from £5.76 at 8pm to £6.57 at 9 pm and £11.10 at 11pm. The proportion of bets reaching £100 doubled between 10pm and midnight. This might be linked to alcohol consumption but it cannot be proved. In a recent Responsible Gambling Strategy Board publication 'Machine Gambling Research: Advice to the Gambling Commission from the Responsible Gambling Strategy Board'<sup>33</sup> they identified the increase in £100 stakes after 9pm:

*“44. A sharp increase in the number of £100 stakes was observed after 9pm and a further increase after 10pm. We can only speculate as to the cause. It could be a statistical oddity. But it must at least be possible that part of the effect is related to the effects of the consumption of alcohol on the quality of decision-making. If so, that should be a matter of concern under the Gambling Act’s third licensing objective – that the vulnerable ought not be harmed or exploited. That is particularly the case in the light of the recent Greene King judgement which could lead to B3 machines becoming available in pubs. They are already commonplace in bingo halls where alcohol can be served”. (RGSB 2015:9)*

### Bingo

As of September 2014 there were 653 licensed bingo premises in the UK. Non-remote bingo is a sector of the industry that is in decline. Gross gambling yield decreased by 8% between April 2009 and March 2014. Whilst men are more likely to participate in gambling than women, women have a higher participation rate in bingo (7% compared with 3% according to the Health Surveys, Wardle et al 2014<sup>34</sup>). Bingo is often portrayed as a ‘softer’ form of gambling which allows older women especially to enjoy companionship and fun (Bedford, 2011<sup>35</sup>). Bedford (2011<sup>36</sup>) discusses how bingo halls are less likely to be seen as drivers of regeneration than casinos although in practice they may attract a similar socio-economic profile of participants.

There seems to be little social research on bingo and we have found nothing which looks at consumption of alcohol, although Bedford (2011<sup>37</sup>) remarks that one of the attractions of bingo is that women can drink cheaply in a safe space without attracting male attention.

### Casinos

There are 147 casinos in the UK of which there are 4 in Wales (3 in Cardiff and 1 in Swansea). The sector is growing in terms of attendance numbers (from 17.11 million from April 2009 - March 2010 to 20.82 million April 2013 to March 2014). However the biggest growth has been to London based casinos that are not high end. The Gambling Commission Industry Statistics<sup>38</sup> combine Welsh attendance with that in the Midlands and this region has seen a small decline (3.93 million in April 2009 – March 2010 compared with 3.69 million from April 2013 – March 2014).

The Gambling Act 2005 allowed Casinos to transform themselves into general adult entertainment venues, providing food, drink and live entertainment as well as table games (roulette, punto banco and blackjack being the most popular), electronic roulette, poker and gaming machines. Customers were no longer required to have been a member for 24 hours before playing. Whilst many casinos remain membership only, customers can become members immediately on providing identification. They were allowed to stay open 24 hours a day. Furthermore they were permitted to supply alcohol on the gambling floor (Leyshon M & Sakhuja R 2013<sup>39</sup>). However, casinos are not permitted to make unsolicited offers of free drinks to customers for consumption while they are gaming, or to offer free or discounted drinks conditional on customers gaming, nor should they permit customers to gamble who are drunk (Gambling Commission 2015<sup>40</sup>).

The Gambling Act 2005 permitted the development of large destination casinos, which were seen as a way of driving economic development and tourism in post-industrial locations (Hobbs et al 2000<sup>41</sup>). However the 8 super casinos proposed proved controversial and this development was cancelled after Gordon Brown became Prime Minister. Currently only two large casinos have opened under the 2005

Act. The majority of casinos in Britain (and all in Wales) are licensed under the 1968 Act (Gambling Commission, 2014<sup>42</sup>). One small casino can be permitted to be licensed in Swansea under the 2005 Act. (Casinos licensed under the 2005 act are allowed to have more gaming machines).

Bedford (2011)<sup>43</sup> throws doubt on the supposition that casinos are destinations that attract outside visitors and argues that the type of casinos that exist in regional towns and cities in the UK attract mainly local visitors. Other countries have noted that casinos are popular with retired people. Phillips and Jang (2010)<sup>44</sup>, in relation to the US, note that casino gambling allows seniors possibilities for interaction and may make them feel in control and competent.

There is little research which directly explores drinking and gambling behaviour in casinos. Case study research in one UK casino (Bohane and Guerrier 2013<sup>45</sup>, Guerrier and Bohane, 2014<sup>46</sup>) indicated that this casino saw itself and was seen as a safe and well run venue for men and women of all ages to enjoy a night out in a city where disorderly and violent behaviour was experienced in other venues. Staff were aware of the need to intervene if customers were drunk and this was seen to be a problem on busy weekend nights, but primarily because customers might become disorderly.

### On-line gambling

On-line or remote gambling is a nascent cultural phenomenon the development of which has been facilitated by the rapid adoption of smart phones and tablets (Albarran Torres and Goggin, 2014<sup>47</sup>, Key Note 2013<sup>48</sup>). UK consumer gross gambling yield from all forms of remote betting (including telephone betting and that currently licensed overseas is estimated to have grown by approximately 18% between 2012 and 2013 and is currently estimated to have a gross gambling yield of £2,444 million per annum (Gambling Commission, 2014<sup>49</sup>). Remote gambling takes a variety of forms: betting (including sports betting) as well as bingo and casino games. Commentators have noted the blurring between 'playing' and 'gambling', for example, the use of Farmville characters in Zyngma Plus Casino (Albarran Torres and Goggin 2014<sup>50</sup>). The Gambling Commission has noted a concern about 'freemium' gaming (where a game is provided free of charge but money is charged for extra features or products)<sup>51</sup>. There has also been concern about free or practice games that might encourage children to take up gambling (although recent research indicates a decline in the proportion of children playing such games from 15% in 2011 to 10% in 2014). Generally remote gambling is challenging for regulators and its rapid development means it has been difficult for them to keep abreast (Albarran Torres and Goggin, 2014<sup>52</sup>, Gainsbury et al, 2012<sup>53</sup>).

The extent to which people typically drink alcohol when they are gambling on-line is also difficult to assess. A study by McBride and Derevensky (2009)<sup>54</sup> in the States found that internet gamblers were predominantly playing at home and that 45% of respondents reported consuming alcohol when gambling (59% of those respondents categorised as problem gamblers). A study in Australia, (Gainsbury et al. 2012)<sup>55</sup>, also found that the vast majority of internet gambling happens at home and in the evening although it did not collect information about alcohol consumption. A study of women internet gamblers (Corney and Davis 2010<sup>56</sup>) indicated that being able to sit in your own home and have a drink was one reason why some women preferred remote bingo: "...you can sit and have a drink and have a smoke in your own home" (Corney and Davis 2010:16) said one respondent.

Gambling is a social as well as an individual behaviour. The approval and participation of peers influences the way in which and the extent to which people gamble (DiCiccio-Bloom et al 2012)<sup>57</sup>. Whilst there is

more research on comorbidity and problem gambling, as this section has demonstrated, there is relatively little sociological or socio-anthropological research on 'normal' gambling behaviour in different sectors and the extent to which and way in which it is combined with alcohol consumption. The reduction of restrictions on alcohol consumption in casinos and bingo halls through the 2005 Gambling Act raised concerns about these sectors (Leyshon M & Sakhuja R 2013<sup>58</sup>). But land based casinos and bingo halls are environments where it is possible to observe and, to some extent, to control how drinking and gambling are combined. By contrast in two sectors of the industry which are of current concern to the regulator- machine gambling in betting shops and on-line gambling – it is much harder to observe behaviour. In the former case, the drinking (if it is happening) would be happening at a different venue and in the latter case, because the gambling can be easily hidden (and the drinking as well if both are happening at home).

In the 2014 report 'Gambling and Young People – entertainment or hidden danger?' Bohane and Guerrier<sup>59</sup> identified younger people who gamble have limited understanding of the difference between chance, luck and probability and can therefore be vulnerable to problem gambling. In a survey conducted with 283 students at one London University 67% said they engaged in at least one form of gambling. 16% had been to a casino in the last year. Male students were significantly likely to gamble than female students. Most students would gamble "for fun" although a fifth of those who gambled said they did it "to make money". 83% of the respondents had had no education at school or college about how to gamble safely. Those students who lived on campus were significantly more likely to gamble as compared to those who lived off campus or at home. Significantly in relation to gambling and alcohol 43% of the gamblers in the sample responded that they sometimes drank while they gambled and 9% that they almost always drank alcohol while they were gambling. These proportions rose to 51% who sometimes drank and 13% who almost always drank if one just considers those students who engaged in forms of gambling other than the lottery or scratchcards. Thus for almost two-thirds of non-lottery gamblers, gambling is at least sometimes associated with consuming alcohol.

In 'The Prevalence of Underage Gambling' Young People Omnibus Report 2014 (Ipsos 2014)<sup>60</sup>, which is a regular survey conducted on behalf of the Gambling Commission, assesses prevalence of underage gambling from a sample of 2,796 11 to 16 year olds in England and Wales. The study found that there was no indication that there had been either an increase in the money spent on gambling since 2012 and neither had there been an indication of a rise in the number of Problem, At Risk and Social Gamblers among 12-15 years compared to 2008/2009 data. Interestingly unaccompanied National Lottery purchases peak among 15 year olds.

## **Gambling operators, corporate social responsibility and responsible gambling**

The academic and business literature on Corporate Social Responsibility (CSR) tends to focus on a diverse range of issues from the legitimacy of corporate companies<sup>61</sup> and the use of CSR policies and practices to underpin business principles; the literature also considers concerns around whether CSR is used to support the reputation of the company and that the rhetoric<sup>62</sup> of CSR is not always fulfilled in practice especially in the 'controversial' industries including gambling, and alcohol sectors<sup>63</sup>. The question of corporate responsibility in relation to the marketing<sup>64</sup> of goods and services is also a common theme within the literature and this will be addressed within this section of the report.

The adoption of corporate social responsibility practices in the gambling sector is explored in relation to managing risk. Jo et al (2012)<sup>65</sup> in their paper 'Does CSR Reduce Firm Risk? - Evidence from Controversial Industry Sectors' examine the relationship between CSR and firm risk in controversial industry firms in the US such as alcohol, tobacco, gambling. They found that the effect of risk reduction through CSR engagement is more economically and statistically significant in controversial industry firms than in non-controversial industry firms. Their findings support a risk-reduction hypothesis, but not the window-dressing hypothesis, and the notion that the top management of U.S. firms in controversial industries, in general, are risk averse and their CSR engagement helps their risk management efforts.

CSR literature is also dominated by the focus on stakeholders<sup>66</sup> and companies social obligations towards them especially in relation to questions of sustainability of businesses<sup>67</sup> as well as in the management of their supply chains. The emerging concept of 'shared value', as advocated by Porter and Kramer (2011), they have championed the theory that there is a growing agenda in business with a shift from the concept of CSR to 'Creating Shared Value' (CSV). This shift has been due to external pressures for CSR to grow, with numerous organisations monitoring, ranking and reporting social performance. They contend that the legal, business and reputational risks are great for companies engaging in practices deemed unacceptable, but core to this issue they contend that few companies have integrated society into strategy in a way that reinforces competitive advantage for the business, with CSR and community issues being treated separate from the core business agenda. As a result of this they surmise that CSR initiatives are hard to sustain<sup>68</sup>.

CSR, as a concept, is not without its critics. Some commentators consider that CSR is another form of public relations and a strategy to avoid regulation<sup>69</sup>, and that CSR allows companies to project an image of responsibility which contradicts their business imperatives, and has the danger of offering empty promises<sup>70</sup>. Many argue, in line with Friedman's<sup>71</sup> view, that the purpose of business is to maximise profits and that social responsibility by managers who sacrifice profit for the common good also are in effect imposing a tax on their shareholders and arbitrarily deciding how that money should be spent.<sup>72</sup>

For the gambling sector, particularly when focussing on the UK, CSR literature tends to focus on the question of responsible gambling and the management of problem gambling. In a case study exploration of corporate social responsibility (CSR) issues being addressed and reported in gambling companies in the UK (Jones et al 2009)<sup>73</sup>, the paper observed substantial variations in the nature and extent of reporting. Some of larger gambling operators produce comprehensive CSR statements, reports and

policies, however most include a brief overview in the websites of their commitments to responsible gambling with no specific reference to corporate social responsibility.

The gambling industry (refer Fig. 1 below) through the five major trade associations in the UK<sup>74</sup>, have been working towards establishing and building on cross industry work and collaboration on responsible gambling, and sharing good practice. The gambling industry in the UK has also developed a range of standards and codes to ensure that operators and customers alike are educated as to responsible gambling. For example, the Remote Gambling Association (2010)<sup>75</sup> produced, in association with Gamcare, the ‘Always Gamble Responsibly’ leaflet which emphasises the ‘fun’ nature of gambling as part of being a mainstream leisure activity. The guidance gives advice around how gambling online should be done in moderation, that players should set their own limits, but it is interesting to note that there is no mention of the dangers of drinking of alcohol whilst gambling. There are concerns in the case of betting shops that even though they do not offer alcoholic drinks in view of their close proximity of many of the shops on the high street they are inevitably going to be located to public houses, bars, restaurants and nightclubs.

The casino sector, whose trade association is the National Casino Forum (NCF) and represents over 95% of the casinos in the UK have developed a ‘Playing Safe’ initiative<sup>76</sup> which does address alcohol particularly in relation to issues such as: ensuring that promotions and rewards should not encourage excessive consumption of alcohol; the legal age for alcohol consumption is abided by; that operators should not offer unsolicited drinks; and that staff are trained to meet these objectives. Casinos are also expected to ensure that any marketing materials should be available in different languages particularly in view of the prevalence of gambling from different ethnic groups.

**Figure 1**

*Examples of recent CSR initiatives for responsible gambling*

<ul style="list-style-type: none"> <li>▪ The British Institute of Innkeeping (BII)<sup>77</sup> have developed a number of qualifications aimed at anyone who works in a customer-facing role within the gambling industry to develop to understand legal and social responsibilities under the Gambling Act 2005.</li> </ul>
<ul style="list-style-type: none"> <li>▪ National Casino Forum (NCF)<sup>78</sup> ‘Playing Safe’ initiative including ‘SENSE’ a national self-exclusion database for the casino sector.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Remote Gambling Association – ‘Always Gamble Responsibly’<sup>79</sup> and also adopted the CEN<sup>80</sup> Agreement on Social Responsibility<sup>81</sup>.</li> </ul>
<ul style="list-style-type: none"> <li>▪ ABB<sup>82</sup> 2013 Code for Responsible Gambling and Player Protection in licensed Betting Offices in Great Britain</li> </ul>
<ul style="list-style-type: none"> <li>▪ The Senet Group<sup>83</sup> which represents four leading gambling companies including Gala, Ladbrokes, William Hill, and Paddypower, established their ‘Promoting Responsible Gambling’ website and have given commitments towards: a voluntary TV advertising ban on sign-up offers (free bets and free money) before 9pm; withdraw all advertising of gambling machines from betting shop windows; dedicate 20% of shop window advertising to responsible gambling messages. They have also developed a series of high profile TV advertisements named ‘Bad Betty’ to help prevent problem gambling.</li> </ul>

There is limited quality research which explores actual management practices from within casinos. In Bohane and Guerrier’s 2013 report on a single case study exploration of the social impacts of a UK local,

provincial casino, when interviewing casino staff it emerged that there was the a highly supportive work culture and strong leadership especially in relation to customers who became difficult especially when alcohol was involved as well as when dealing with ‘problem gamblers’<sup>84</sup>. The report also identified the view that alcohol consumption can contribute to bad behaviour and that it would not make good business sense to tolerate drunkenness in maintaining a safe, well-run environment regardless of the licence conditions.

In September 2013, the ABB published their code for responsible gambling and player protection in licensed betting offices in Great Britain<sup>85</sup>. The code focuses on a ‘harm minimisation strategy’ as follows: *‘Issuing clearer and more accessible information on how to gamble responsibly and highlighting the sources of help available;*

- *Providing customers with new tools such as mandatory time and money based reminders, the ability to set spend and time limits on gaming machines and to request machine session data;*
- *Training staff to detect the signs of potential problem gambling more quickly and how to interact more effectively with those identified; and*
- *Undertaking more consistent central analysis of data to identify abnormal activity both in specific shops and, where possible, that relating to individual customers*<sup>86</sup>.

In a 2013 report on ‘Gambling and Young People’<sup>87</sup> in interviews with UK casino operators it was found that casinos have comprehensive and numerous mechanisms and control processes (refer Figure 2 below) in place to manage responsible gambling and responsible drinking, yet they have the dilemma and tension that they are simultaneously marketing and offering a service to customers whilst at the same time are expected to protect their customers. The data on customers is used for both purposes. The control processes are designed to prevent intoxicated people from entering a casino, but also attempts to ensure that once in the casino the consumption of alcohol is carefully managed and controlled.

Figure 2 – **Control Processes in Casinos**

- Door and access security
- Membership management
- The management of problem gamblers
- Face recognition cameras
- The control of spend
- Procedures for reviewing the time spent by people gambling
- The training of staff about problem gambling
- Surveillance
- Interventions
- Self-exclusion practices
- Problem gambling leaflets throughout the venues
- Websites as guides for advice on problem gambling
- Loyalty cards to manage data on guests
- Procedures for reviewing money laundering

Source: Bohane and Guerrier (2014:31)<sup>88</sup>

### Operators and Marketing

There have been concerns expressed, particularly as a consequence of the loosening of advertising regulations as a consequence of the Gambling Act 2005, that ‘sophisticated’ advertising may impact on the level of problem gambling<sup>89</sup>. Brindley (2001) predicted a number of changes in consumer behaviour

in relation to gambling through technology, namely the increasing familiarisation with interactive technology, and also changes in the way that gambling market operates. She anticipated, even prior to the changes in the Gambling Act 2005, that the synergy between marketing gambling and technology would transform the production and consumption of gambling<sup>90</sup>.

Alcohol Concern Cymru's Report 'A Losing Bet' considered a wide range of problematic areas of marketing, with particular concern for: sponsorship; celebrity endorsements; point-of-sale; and new media<sup>91</sup>. Technology, especially through smartphones and websites, is advancing at such a fast pace that there is very little detailed research to date which explores the consequences that marketing techniques may have on gambling consumers. In a report on gambling advertising commissioned by the Responsible Gambling Trust, observes the dilemma 'that it is very difficult, if not impossible, to assess how many people gamble excessively because of direct or indirect influence from advertising' (Binde 2014:1)<sup>92</sup>.

Advertising is a controversial topic in that companies spend a huge amount to promote their products and services however consumers are often wary of the messages and the consumers believe that the influence on them is small<sup>93</sup>. Binde also highlights the debate in relation to gambling advertising that on the one hand, from a positive perspective, gambling offers an entertainment value for consumers, however on the other hand, gambling has a moral dimension associated with hedonism, materialism, covetousness, individualism and fatalism<sup>94</sup>. This negative view is extended to the perception that gambling advertising can be 'deceptive, unethical and causing harm to society as it incites many people, including youth, to start gambling and to gamble excessively'<sup>95</sup>.

Following the introduction of the Gambling Act 2005 the onus is now on the operators to manage their corporate social responsibility, the gambling and its promotion in responsible ways. A particular concern is in relation marketing to young and vulnerable people and the guidelines outlined in the CAP (non-broadcast advertising) and BCAP (broadcast advertising) codes offer the rules for gambling operators to follow in order to ensure that their marketing messages are legal, socially responsible, and do not exploit or particularly appeal to young people. The CAP<sup>96</sup> and BCAP codes, for example, specify that ads for gambling must not: portray, condone, encourage gambling behaviour that is socially irresponsible or could lead to financial, social or emotional harm. The codes also specify rules such as not: exploiting susceptibilities, particularly to the young and vulnerable; depicting gambling as a solution to financial concerns; and so on. The BCAP code, in addition, contains rules specifically for betting tipsters ads, around issues such as proofing requirements and profit claims. There is an emerging debate around gambling and whether this often stigmatised and controversial industry can ever achieve higher levels of responsibility as, similar to the drinks industry and tobacco industries, the level of harm and risks associated with those businesses undermines their legitimacy. These issues are of particular concern in the online gambling sector. Yani-de-Soriano et al (2012)<sup>97</sup>, for example, in their paper: 'Can an Industry Be Socially Responsible If Its Products Harm Consumers? The Case of Online Gambling' identify that online gambling companies seem committed to corporate social responsibility (CSR) practices that are aimed at preventing or minimising the harm associated with their activities. They conducted some empirical research employed a sample of 209 university student online gamblers, who took part in an online survey. They found that the extent of online problem gambling was substantial and that it adversely impacts on the gambler's mental and physical health, social relationships and academic performance.

Yani-de-Soriano et al (2012)<sup>98</sup> therefore claim that their findings show that there are harmful repercussions associated with online gambling, and argue that companies in this controversial sector cannot reach the higher level of CSR achieved by other industries. Nevertheless, they can gain legitimacy on the basis of their CSR engagement at a transactional level, and so, by meeting their legal and ethical commitments and behaving with transparency and fairness, the integrity of the company can be ensured. They argue that as online gambling companies must be responsible for the harm related to their activities, they suggest that CSR policies should be fully implemented, monitored and clearly reported; all forms of advertising should be reduced substantially; and unfair or misleading promotional techniques should be banned. The industry should not rely on revenue from problem gamblers, nor should their behaviour be reinforced by marketing activities (i.e. rewards) (Yani-de-Soriano et al 2012: Abstract)<sup>99</sup>

In 2007 a number of gambling and hospitality trade associations signed up to abiding by the voluntary Gambling Industry Code for Socially Responsible advertising<sup>100</sup>. The code provided a number of recommendations for operators who might wish to go beyond the minimum standards which are set out within it, and this was specifically to be seen as a supplement to the CAP and BCAP codes. It was underpinned by the commitment that the gambling industry has a responsibility to ensure that it takes reasonable steps to minimise the extent of problem gambling and to prevent underage gambling from taking place through socially responsible advertising. This included the clear and appropriate educational messaging around responsible gambling as well as:

- social responsibility messages
- display of the 'Gambleaware' website address
- broadcast media – messaging
- television advertising – watershed
- ban on children's merchandising as part of sporting sponsorships<sup>101</sup>.

Changes to the law on gambling advertising took effect from 1 November 2014 as a result of the Gambling (Licensing and Advertising) Act 2014<sup>102</sup>. The changes require that carriers of gambling advertising needed to ensure they only permit gambling operators licensed by the Commission to advertise in Great Britain. Those undertaking gambling advertising should continue to comply with the UK Advertising Codes as well as the requirements of the Gambling Commission's licence conditions and codes of practice<sup>103</sup>. It is too early to foresee how these changes will impact on the gambling industry although an interesting consequence of this is Facebook's response to the changes:

*"For advertisers targeting the UK: As of November 1, 2014, Facebook is only accepting advertisers who are explicitly licensed or have a continuation license from the Gambling Commission in the UK. We are no longer accepting ads from clients who were previously approved with non Gambling Commission licenses and do not currently have an explicit license or continuation license from the Gambling Commission"*<sup>104</sup>.

The Advertising Standards Authority (ASA), who oversee compliance with advertising codes, in their review of the ASA's application of the advertising codes<sup>105</sup>, focused their research on their response to complaints and 'cases' and the extent to which the codes are being applied appropriately and consistently, and the research was mindful of issues such as children's exposure to advertising, particularly live sports betting before 9am; the extent to which in-play sports betting were 'aggressive'; and the question of free bets and other bonus offers<sup>106</sup>. They concluded that they were 'satisfied' that they were meeting their objectives, however they also highlighted key areas for further consideration,

namely that: in relation to free bet offers and other sales promotions, misleading sales promotions were consistently the most prevalent issue in gambling ads found in breach of the rules; in relation to children and scheduling, as a result of focus group qualitative research conducted by Research Works Ltd concerns were highlighted in relation one particular advertising that may appeal to young people; and in relation to 'toughness' in gambling ads again the focus group highlighted in a small number of cases the samples TV ads embodies traits such as toughness, resilience and recklessness.

The use of marketing using social media was in the spotlight in 2013<sup>107</sup> when the ASA published their report on a survey with children about their use of social media. 83% of those questioned stated that they lied about their age when registering for the likes of Facebook and Twitter. The implications of this is that it leaves them exposed to ads for alcohol, gambling, sex aids and other adult content. The blame was placed on the children but also cautioned advertisers that if they know that children are lying about their age, then should do everything in their power to prevent this. In a study of children's websites Nairn 2008<sup>108</sup> one of the key findings was that great deal of advertising is poorly labelled and deceptively integrated into content. Most sites visited by children are created for an adult audience which means 25 percent of adverts were for dating, gambling, loans, surgery and age-restricted products.

One of the greatest challenges for marketeers of gambling products and services is in relation to the concerns about young people being exposed to gambling as well as alcohol advertising on the internet as well as on social media. Equally, social media can be a powerful medium for educating and changing young peoples' attitudes about the dangers, especially of excessive drinking<sup>109 110</sup>.

Valentine (2008) in her literature review of young people and gambling identified a gap in the research in relation to what extent (if any) the advertising/promotion of gambling – including free demonstration games available on websites - has a direct effect on gambling participation<sup>111</sup>. She also considered that advertising is another factor which has been identified as potentially motivating young people to gamble, even though the industry is not supposed to target advertisements specifically to children. She quotes parallels with research into advertising of alcohol drinks<sup>112</sup>

Casino operators have a commitment through the National Casino Forum's 'Playing Safe' 2013<sup>113</sup> initiative towards ensuring that young people are not targeted in marketing. Most casinos tend to market through their direct marketing databases which ensures that young people are excluded from their targeted marketing.

## Gambling and alcohol behaviours

The relationship between gambling and alcohol consumption is multifaceted and the focus of extensive research, resulted in numerous publications on the topic<sup>114</sup>. This section explores this relationship, through scientific research, providing a list of relevant academic research.

Leyshon M & Sakhuja R (2013:4)<sup>115</sup> argue that there is increasingly strong evidence of an association between problematic gambling and heavy drinking. This part of the review will consider the extent to which there may be a relationship between drinking alcohol and gambling. Barnes et al (2009)<sup>116</sup> compared the patterns and co-occurrence of gambling and alcohol and other substance use among youth in the United States. In an extensive telephone survey of 2,274 youths between the ages of 14-21 year olds identified that problem gambling and substance misuse are prevalent among young people. For instance, 17% of youth reported gambling 52 or more times in the past year, and the same percentage of youth drank five or more drinks on 12 or more days in the past year. The paper also identified other studies which revealed that gambling pathology was significantly associated with alcohol- and substance-use disorders, as well as nicotine dependence.

In a much earlier paper, Baron et al (1999)<sup>117</sup> undertook a preliminary investigation into whether the drinking of alcohol contributes to impaired control of gambling behaviour. The paper identified a consistent theme of alcohol use contributing significantly to impaired control of gambling behaviour, with level of involvement. They quoted the "Gambling Impact and Behaviour Study"<sup>118</sup> (National Opinion and Research Center NORC at the University of Chicago, March, 1999) that showed that high-risk gamblers were more likely than low-risk or non-gamblers to be alcohol or drug dependent. Their key findings were as follows:

*"These exploratory findings present a picture of a regular gambler drinking alcohol prior to a session of gambling and having increasing problems with control in resisting urges to begin a session of gambling (one in eight players (13.3%) found it 'difficult to resist playing the card machines after having a few drinks'). Continued drinking of alcohol appears to be moderately associated with progressive levels of impaired control within a session of gambling, and appears to further add to the problems of ending a session of play for the gambler".*

Baron et al (1999:13)<sup>119</sup>

In the paper by Walker et al (2010)<sup>120</sup> on the relationship between gambling and binge drinking results indicated that individuals who exhibit signs of problem gambling behaviour are significantly more likely to use hard drugs, to binge drink, and to pay for sex. Their research found that when respondents report having gambled inside or outside of a casino they are more likely to have binge drunk more than twice in the last year; also if the individual engaged in casino gambling the probability that they binge drink increases by 7 percentage points. Their results suggest that individuals who gamble, and more significantly, those who are more likely to be diagnosed with gambling problems, are more likely to also engage in these other behaviours.

When looking at gambling and drinking patterns Zack et al (2005)<sup>121</sup> considered that although problem gambling and problem drinking often co-occur, the processes underlying this association are not well understood. Their study investigated the effects of contingent gambling-drinking patterns and problem drinking severity on implicit gambling-alcohol associations. They found that:

*“A tendency to drink in response to gambling wins and more severe alcohol problems each coincide with stronger associations between gambling win and alcohol concepts in memory. Such associations can promote drinking and its attendant effects (e.g. poor decision-making) in problem gamblers, and thus, may contribute to co-morbid gambling and alcohol use disorders”.*

*Zack et al (2005: 325)<sup>122</sup>*

The paper considers that winning may trigger obsessive thoughts about alcohol in problem gamblers who previously drank alcohol as a conscious response to winning. Either of these circumstances could promote further drinking and its attendant effects (e.g. impaired decision-making, disinhibition). (ibid 2005:)<sup>123</sup>.

Gambling, further test research suggests, is significantly associated with alcohol consumption and substance use, often co-occurring in individuals and during gambling events (Cunningham et al 2001)<sup>124</sup>. Indeed, individuals who frequently consume large amounts of alcohol or are alcohol dependent are more prone to engage in moderate or problematic gambling (Stinchfield et al 2005)<sup>125</sup>. There is an established relationship between gambling and alcohol consumption, with individuals who engage in frequent, high-risk or problematic gambling more likely to also face alcohol-related problems (Hodgins et al 2013)<sup>126</sup>; approximately one third of pathological gamblers have had or have an alcohol use disorder (Hodgins et al 2013)<sup>127</sup>, and online gamblers are more likely to consume alcohol and use drugs while gambling than non-online gamblers (Gainsbury et al 2012)<sup>128</sup>.

Problem gambling and drinking, have also been associated with further problematic behaviours and are widespread in clinical and other specific populations, such as individuals involved in acts of physical and sexual aggression and domestic violence (Bransfield et al 2012)<sup>129</sup>. They explored the associations between intimate partner violence, alcohol use, and gambling behaviour with 341 court-mandated males who had been ordered to attend batterer intervention programs (BIPs) in the USA. They found that males exhibiting pathological gambling were more likely to be hazardous drinkers, and hazardous drinkers were more likely to exhibit pathological gambling. Additionally, pathological gamblers were at an increased risk for the perpetration of both physical and sexual aggression. They considered that alcohol use and gambling are strongly and positively related. They considered one possible explanation for the association was that alcohol use and gambling behaviour are caused by shared factors such as impulsivity and deviant peer influences. They also surmised that gambling and alcohol are reciprocally related.

Alcohol and drug use, smoking, and gambling are all highly prevalent among psychiatric outpatients. Young females are in particular need of attention (Nehlin et al 2013)<sup>130</sup>. An Australian study found high levels of alcohol, and other drug use among building and related workers and high levels of self-diagnosed problems associated with this use and with gambling. While a union-led program aims to reduce harm on the worksite, the levels of self-reported family and gambling problems found in this study suggest that more needs to be done for workers and their families off worksites (Banwell et al 2006)<sup>131</sup>. In South Korea (Lee et al 2008)<sup>132</sup> research into casino workers showed that employees who reported gambling problems reported a higher prevalence of smoking, alcohol problems and depression compared to employees who did not report gambling problems.

Environmental, social and cultural factors significantly influence gambling and alcohol consumption. Children of pathological gamblers or drinkers face higher risks of developing gambling and alcohol-

related problems (Franklin et al 1989)<sup>133</sup>, as do individuals that are less-educated, have marriage difficulties, and belong to lower social class or ethnic minorities (French et al 2008)<sup>134</sup>, while socialising with family and friends is found to reduce risk (Hing et al 2014)<sup>135</sup>. Minority and low socioeconomic status individuals, it is suggested, are more prone to gambling pathology (Welte et al 2004)<sup>136</sup>, and that those who drank while gambling were more likely to be problem gamblers. Black youth, research has found in a study in the USA, are more likely to gamble frequently, but are less prone to heavy drinking (Barnes et al 2009)<sup>137</sup>.

Risk factors for developing problem gambling, specifically, include, among others, high gambling expenditure and early onset of gambling, low self-control and engagement in antisocial or delinquent acts, poor physical or mental health, young age, high impulsivity, and perceived availability and benefits of gambling (Hing et al 2014)<sup>138</sup>. Extensive use of alcohol and drugs, whether while gambling or in everyday life, is seen as a significant factor and risk predictor, linked to problematic gambling (Hing et al 2014)<sup>139</sup>, especially when individuals begin consuming alcohol at an early age (Grant et al 1997)<sup>140</sup> or large amounts of alcohol are consumed per occasion (Griffiths et al 2010)<sup>141</sup>.

Problem gambling and drinking in youth are often used as a method of coping with everyday challenges (Hodgins et al 2013)<sup>142</sup>, or as a way of earning money and dealing with other problematic behaviours (Vitaro et al 2001)<sup>143</sup>, and are linked with high impulsivity levels (Leeman et al 2014)<sup>144</sup> and problematic family environments (Scholes-Balog et al 2014)<sup>145</sup>. Students, specifically, are more likely to engage in problem drinking, while young people who are not studying engage in more frequent gambling (Barnes et al 2010)<sup>146</sup>. However, it is suggested that individuals prone to one problem behaviour are also prone to others (Scholes-Balog et al 2014)<sup>147</sup>; gambling, while perceived as less dangerous by adolescents (Gupta et al 1997)<sup>148</sup>, often leads to the development of other high-risk behaviours, such as drug use, binge drinking, shoplifting or trouble with the police as was shown in an Australian study (Delfabbro et al 2010)<sup>149</sup>, and alcohol misuse is a risk factor for violence, substance use and antisocial behaviour (Swahn et al 2008)<sup>150</sup>.

Gender is a further significant factor when discussing gambling and drinking. These behaviours, as most addictive disorders, have been found to be more prevalent between males than females (Engwall et al 2004)<sup>151</sup>, despite the recent increase in females participating in online gambling as shown in a Swedish study (Svensson et al 2011)<sup>152</sup>. A recurring theme throughout the literature is the relationship between alcohol and gambling seems to be more significant in males (Barnes et al 2009)<sup>153</sup>, as they are more likely to consume alcohol while gambling (Welte et al 2004)<sup>154</sup>. Furthermore, problematic gambling in males is associated with other antisocial and risk-taking behaviours, whereas dissatisfaction with peers, lack of connectedness and psychological difficulties seem to lead females to greater involvement in gambling (Jackson et al 2008)<sup>155</sup>. Additionally, preferred forms of gambling differ depending on their sex, with instant-wins, such as lottery and bingo, being more popular with females and games of skill, such as sports betting, more popular with males (Barnes et al 2009)<sup>156</sup>.

The Independent Newspaper (2015)<sup>157</sup> identified the views of two leading gambling researchers that women under the age of 35 are a particular group of people who are showing more signs of problem gambling particularly through online gambling, bingo and the use of female-friendly online games such as 'Candy Crush' and that these women are showing increasing signs of unhealthy attachment. Leyshon

M & Sakhuja R (2013)<sup>158</sup> identified the 'genderquake' phenomenon that the stigma associated with women drinking has diminished, and that this has been driven by and resulted in an abundance of alcohol marketing towards women, and similarly they highlight gambling marketing, particularly online, that is targeted specifically at women.

Dowling (2014)<sup>159</sup> identified that women in the USA tend to play a narrower range of games than men and prefer 'games of chance'. She also cites research which suggests that women may prefer non-strategic gambling activities such as electronic machines, bingo, lottery because they are more likely to gamble to escape aversive emotions, life problems, trauma and abuse. She also identified the issue that much international research into problem gambling has a male bias in terms of samples, therefore the underrepresentation of women has resulted in a deficiency of knowledge of women with gambling problems. Interestingly she cites the effect for women gamblers of 'telescoping', which has also been identified in alcohol and substance dependence. Compared to males, female gamblers tend to report a later age of onset of regular gambling, shorter durations prior to developing gambling-related problems, and shorter durations of problem gambling before seeking help (Dowling et al 2014)<sup>160</sup>. Finally, Dowling quotes empirical research that shows that women may be less likely to recover naturally from a lifetime of gambling than men, although women are more likely to seek treatment and that studies on cognitive-behavioural treatment programmes for women had mixed findings but generally were effective in improving gambling behaviour and psychological functioning (Dowling et al 2014)<sup>161</sup>.

Nady el-Guebaly et al (2006)<sup>162</sup> in their Canadian paper identified that for persons with substance dependence or harmful alcohol use, the risk of moderate/high severity gambling was 2.9 times higher. Persons with both mood/anxiety and substance/alcohol disorders were five times more likely to be moderate/high severity gamblers.

*"Regarding gambling activity, the results tend to confirm that the risk for problems arising from lotteries (provincial lotteries, raffles) is lower than those arising from games that provide immediate rewards such as Instant Wins or Casinos. As noted, women tend to favor purchasing Instant Wins while their attendance at casinos is about the same as males, although males with substance dependence/harmful alcohol use attend casinos more. Increased frequency of gambling tended to predict higher risks".*

el-Guebaly et al (2006:275-287)

Despite extensive research investigating this topic, research findings can sometimes be contradictory and diverse. For example, drinking problems were less prevalent than expected within a population of gamblers, in research in the USA by Potenza et al (2005)<sup>163</sup>. Furthermore, according to Svensson and Romild (2011)<sup>164</sup> in a Swedish longitudinal study, they identified that mental health, alcohol consumption and smoking may not be reliable predictive factors for online gambling, and Suomi et al (2014)<sup>165</sup> argue that gamblers who consume alcohol are more likely to have access to money, be in full-time employment and belong to higher social classes.

A further related subject that is under debate concerns the reported benefits of gambling or drinking. In the case of alcohol there is evidence showing that responsible consumption can lead to beneficial health effects. Similarly, legal moderate gambling can result in enjoyment and gratification, social enhancement, financial gain, and help to escape everyday stress and achieve positive mood (Wickwire et al 2007)<sup>166</sup>, while gambling has been argued to offer social support to older adults who may become

isolated as they age (Bilt et al 2004)<sup>167</sup>. Goldstein et al (2013)<sup>168</sup>, in Canada, claim that there is a significant positive moderating effect for enhancement motives on the relationship between positive mood and amount of time spent gambling and number of drinks consumed while gambling. They also considered that at higher levels of positive mood, those with higher coping motives drank less alcohol while gambling than those with weaker coping motives. Their findings indicated that there was a general tendency for coping motivated gamblers to consume less alcohol during gambling. This may be a result of coping-motivated gamblers engaging in the types of gambling that do not typically involve drinking, or it may reflect a tendency for high coping motivated gamblers to direct their resources (i.e., money) toward gambling and to avoid spending on other costs (e.g., alcohol) during gambling. (ibid)<sup>169</sup>

The effect of alcohol consumption on gambling, however, does not therefore always lead to negative outcomes, other factors being equally important. Certain research has found no resulting problems in combining alcohol and gambling (Breslin et al 1999)<sup>170</sup>, level of involvement during gambling being a better predictor of impaired control (Baron et al 1999)<sup>171</sup>. Furthermore, alcohol has been found, in some cases and depending on the form of gambling (Markham et al 2012)<sup>172</sup>, to increase cautiousness and decrease willingness to gamble for extended periods of time.

Regarding the effect of gambling on alcohol consumption, in an Australian study gamblers did not seem to think they consume alcohol more often while gambling (Taylor et al 2006)<sup>173</sup>. Moderate and high risk frequent gamblers (52.2%, n=125) who stated that they had gambled while under the influence of drugs or alcohol were then asked if they found that they drink alcohol, or take legal or illegal drugs more frequently when they gamble. Overall, 72.6% of these respondents (n=91) did not feel that they drank alcohol or took drugs more often when gambling. However, other research suggests that drinking in response to gambling wins may result in alcohol use disorders, as gamblers can be susceptible to consuming increased amounts of alcohol when winning (Martin et al 2005)<sup>174</sup>.

Gambling and drinking often take place together and are argued to be symptoms of shared motivations and psychological origins, appealing to similar personality profiles (Lawrence et al 2009)<sup>175</sup>. Furthermore, the diagnosis of pathological gambling and drinking shares significant similarities (Breslin et al 1999)<sup>176</sup>, problem gambling often described as an “addiction without the drug” (Grant et al 2002)<sup>177</sup>. When abstaining from gambling or alcohol, individuals face withdrawal symptoms, such as irritability and agitation (ibid)<sup>178</sup> and both behaviours are linked to anxiety, loss of control, guilt, depression, impulsivity, peer pressure and self-medication (Hing et al 2014)<sup>179</sup>. Research suggests that both behaviours use similar neurotransmitter systems, and that they present shared genetic overlap and similar dysfunctions and deficits (Bechara et al 2003)<sup>180</sup>. Certain differences between gambling and alcohol-related behaviours have been noted, however; alcohol consumption seems to decline with age faster than gambling, as well as peak at a younger age (Welte et al 2011)<sup>181</sup>. Furthermore, different motives behind gambling and drinking lead to differences in behaviour; for example, individuals who gamble as a coping technique are more at risk of severe psychopathology, whilst gamblers who aim towards mood enhancement are most likely to drink while gambling, and social gamblers choose socially-related forms of gambling (McGrath et al 2010)<sup>182</sup>. Fun-seeking and negative mood has been associated with drinking, while drive-seeking and positive mood has been associated with gambling (O’Connor et al 2009)<sup>183</sup>. Kwak et al (2004)<sup>184</sup> undertook a cross-cultural comparison between US and South Korea to explore comorbidity between pathological gambling, smoking, drinking and experimenting with drugs. In the two

cultures, they found a strong link between obsessive thoughts and compulsive behaviours. They considered that:

*“ the psychological origins of compulsive buying and gambling behaviors and the physiological origins of compulsive substance abuse may coexist as indicated by the afflicted person’s association of destructive behaviour outcomes with positive rewards”.*

Kwak et al (2004:429)<sup>185</sup>

Brewer et al (2009)<sup>186</sup> explored the associations between problem and pathological gambling disorders and alcohol abuse and dependence in a sample of over 43,000 US citizens. They concluded that gambling-related associations exist with multi psychiatric disorders, but particularly in those with alcohol use disorders.

In ‘Understanding Gambling: Impacts and Social Network Across the Lifecourse’ Reith et al (2014)<sup>187</sup> researchers conducted a series of interviews with fifty gamblers between 2006-2011. They identified what they described as four ‘trajectories of behaviour’. In terms of the social and environmental influences on behaviour for those people whose behaviour became problematic over time, electronic machines, alcohol and insecure employment status were key themes. Family, friends and colleagues were instrumental in initiating people to gambling, especially in the case of family when the person was quite young.

The relationship between the alcohol use and gambling in university students is well documented. It is important to note that for university students in the US it may be legal to gamble but not to consume alcohol under the age 21. In Canada Hodgins et al (2013)<sup>188</sup> explored different aspects of the link between alcohol use and gambling among undergraduate university students. They found that students who drink to cope and have other indicators of alcohol problems are more likely to gamble to cope, gamble to win money, and have higher gambling involvement and gambling-related problems. Their paper quoted the work of Giacomassi et al (1998)<sup>189</sup> who claim that they serve to reinforce each other, resulting in what is referred to as a “gambling tonic”, in which drinking stimulates betting, clouds judgment, and reduces the gamblers’ restrictions on the amount of money they are willing to spend in a given session (Giacopassi et al 1998)<sup>190</sup>. Their research found that students who drink to cope and have other indicators of alcohol problems also gamble to cope, gamble to win money, and have higher gambling involvement and gambling-related problems. Males students typically drank and gambled more than female students. This is consistent with Bohane and Guerrier (2013)<sup>191</sup> and Barnes et al (2010)<sup>192</sup> who considered that being male was a predictor of being higher levels of alcohol use and problem drinking. They surmised that the most important and consistent risk factor for both alcohol and gambling behaviours is being a young male whether in college or non-college settings.

Cronce et al (2010)<sup>193</sup> in their paper on the effects of alcohol and initial gambling outcomes found that alcohol consumption was associated with larger average bets and more rapid loss of all available funds, though no evidence was found for predicted main effects and interactions for gambling persistence. They also found that individuals who consumed alcohol placed significantly higher average wagers than individuals who consumed a placebo beverage. They considered that their findings had potential implications for public policy regarding the sale of alcohol in gambling venues.

*“Free and convenient service of alcohol may also motivate adult gamblers to persist in gambling, even if the pharmacological effects of alcohol do not specifically disinhibit their behavior. Routine evaluation of venues’ efforts to enforce regulations related to underage drinking/gambling and alcoholic beverage server liability could further encourage casinos to serve alcohol under more limited conditions, potentially leading to a reduction in both problems related to the effect of alcohol on gambling and problems associated with underage drinking”.*

Cronce et al (2010:13)<sup>194</sup>

In Penfold et al (2006)<sup>195</sup> they surmised that alcohol misuse is commonly associated with problem gambling and suicide attempts and that the alcohol and gambling are commonly co-exist among clinical populations.

*“Those who were problem gambling were more likely to be abusing alcohol, although no more likely to be using alcohol as part of the suicide attempt process. The high numbers identified in the study as affected by gambling combined with higher levels of alcohol abuse suggests a possible influencing factor, although no causative conclusion could be drawn from this study”.*

Penfold et al (2006:277)

In a Canadian paper on ‘Terminal Gambling Behaviours’, Stewart et al (2014) considered that alcohol maintained the irrational beliefs about VLT video lottery terminal play of non-pathological gamblers, but did not influence their gambling behaviours. Results are consistent with a growing body of research finding that gambling cognitions have an equivocal role in explaining actual gambling behaviours. They claim that their results suggest that alcohol consumption contributed to the maintenance of high levels of irrational cognitions among non-pathological gamblers, and that alcohol use might exacerbate gambling problems in the longer term by increasing gambling behaviour among pathological gamblers that could lead to adverse consequences.

In terms of identifying the behaviour of gamblers Leyshon M & Sakhuja R (2013:15)<sup>196</sup> identified the contrasting perspectives in the research, that on the one hand pathological gamblers may go through a linear sequence of phases towards addiction, but on the other hand more recent research considers that there are more dynamic patterns and movement between categories of pathological problem/social gambling. The ‘Gambling Pendulum’<sup>197</sup> concept coined by Sakhuja (2011) identifies the dynamic nature of the problems.

One of the challenges for healthcare professionals is the hidden nature of gambling. George et al 2014<sup>198</sup> in their Faculty Paper for the Royal College of Psychiatrists identify a number of concerns, namely that, in addition to the estimated half a million problem gamblers in the UK there is around 6.5% of the population have gambling behaviours that place them ‘at risk’. Other concerns focus on how government needs to take more responsibility for the services that treat adult gamblers, that they need to recognise gambling disorder as a public health responsibility and that future treatment could be linked to the existing and experienced network of drug and alcohol services. Specific concerns for gamblers were in relation to the clustering of betting shops in the high street and how FOBT’s have been linked to problem gambling. They claim if left untreated adults with gambling disorder can experience negative consequences including higher rates of physical illness, mental health conditions, financial difficulties and involvement in crime.

Whilst there are a number of different scales used to measure problem gambling, the BGPS and the more recent Health Studies use two. The DSM-IV was developed for the BGPS<sup>203</sup> using the criteria from the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV) which were developed by clinicians and not for screening the general population. This is now being superseded by the DSM V<sup>204</sup> classification which now classifies problem gambling as an addiction. The second test used is the PGSI developed in Canada by Ferris and Wynne (2001)<sup>205</sup> for use on the general population. The advantage of the PGSI is it aims to give information about gamblers who are 'at-risk' of becoming problem gamblers. There are also number of other assessment tools used for the screening and assessment of problem gambling. These include the 'Lie Bet' tool<sup>206</sup>, and the SOGS<sup>207</sup> test.

The 2012 Health Surveys (NatCen 2014)<sup>208 209</sup> indicated that 0.6% of adults in England and Scotland were problem gamblers based on those respondents identified as such on either the DSM- IV or the PGSI. Problem gambling prevalence is highest amongst men and amongst the youngest age group (16-24). 4.2% of adults were classified as at risk on the PGSI scale (1% being moderate risk gamblers). Again men and the youngest age group were most likely to be at risk. So 14.2% of 16-24 year old male respondents were classified as at-risk on the PGSI scale. In terms of correlation with consumption of alcohol, low risk and moderate risk gambling were associated with the quantity of alcohol drunk on the heaviest drinking day with those who consumed most alcohol (16 or more units) more likely to be at-risk drinkers. Problem gambling prevalence, however, did not vary with measures of alcohol consumption.

When considering treatments for Gambling disorders, whilst the mainstay treatment is currently based on psychosocial interventions and pharmacotherapy for co-morbid conditions, there is an increasing understanding of the overlap of genetics and brain mechanisms involved in Alcohol Use Disorders and gambling. This implies that the treatments used in alcohol may be transferrable in principle to gambling disorders. Both conditions have similar neurotransmitter pathology that involves Serotonin, Noradrenaline, Opioids, Glutamate and Dopamine abnormalities (Grant et al 2014)<sup>210</sup>. Various studies have highlighted the use of SSRIs (Selective Serotonin Reuptake Inhibitors) (Hollander et al 2000<sup>211</sup>, Blanco et al 2002<sup>212</sup>, Kim et al<sup>213</sup>), Naltrexone (Opioid antagonists), Mood stabilisers (Hollander et al 2000<sup>214</sup>, Pillanti et al 2002<sup>215</sup>), Anticonvulsants (Dannon et al 2005<sup>216</sup>, Berlin et al 2013<sup>217</sup>) in the treatment of gambling disorders and alcohol disorders. Amongst the various studies, most evidence supports the use of Naltrexone in Pathological Gambling as the first line treatment, especially with people who have a co-morbid history of other substance misuse disorders or a family history of alcohol use disorder<sup>218</sup>.

The Welsh survey by Raman Sakhuja at the Royal College of Psychiatrists in Wales<sup>219</sup> highlighted that over 90% of respondents accessing services for alcohol or substance misuse expressed that Addiction services in the NHS should be responsible for the assessment and treatment for Gambling disorders. However, at present the National Substance Misuse strategies in UK, do not incorporate behavioural addictions such as gambling as part of the strategy and hence there is a clear gap of service provision for this population resulting in treatments for Gambling disorders to fall between General Adult Psychiatry services and Addiction services, where only limited number of specialists who have an interest or expertise in managing gambling disorders taking on the treatments in a dedicated and structured way.

One of the few dedicated centres for the treatment of gambling addiction within the National Health Service is the National Problem Gambling Clinic in Soho, London operated by the Central and North West London NHS Foundation Trust<sup>220</sup>. The service includes a range of services including intervention following

referral from a General Practitioner, cognitive behavioural therapy (CBT) treatment, aftercare and financial advice. Most services focus on psychosocial interventions including CBT approaches, financial management and family interventions. Other organisations who offer support and guidance to potential problem gamblers include Gamcare<sup>221</sup> who also operate a 24 hour helpline service as well as consulting and training services to a range of providers including gambling operators. The Gordon Moody Association<sup>222</sup>, funded largely by the Responsible Gambling Trust, offers a 'unique and intensive residential treatment programme in the UK for those gamblers most severely addicted'. They operate two residential centres in Dudley in the West Midlands and Beckenham in Kent. Another provider of note offering addiction service for young people is through the Addiction Recovery Agency<sup>223</sup> with their centre in Bristol.

### **Recommendations for further research**

- There is a gap in research into the prevalence of gambling in Wales.
- There is little research which identifies the nature of 'normal' gambling behaviour for those simultaneously consuming alcohol.
- In reviewing the literature on gambling and alcohol behaviours there has been very limited qualitative or quantitative research undertaken which assesses the changing nature of online gambling especially in relation to drinking behaviours at home.
- There is a gap in the research into the relationship between gambling and drinking behaviours for those attending betting shops that are located close to licensed premises especially in areas of deprivation.
- There is little or no research in relation the prevalence of in-play online gambling on sports events in licensed public houses, bars, university bars and other public venues.
- There is a lack of research into the impact that different forms of marketing has on those who gamble and consume alcohol at the same time, especially for young adults.
- There is little research which assesses the effectiveness of positive messaging on responsible gambling and drinking.
- There is little research that assesses the impact that alcohol consumption has on those who play on fixed odds betting terminals (FOBTs).

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