Quarterly Research Briefing 04/15 (December 2015)

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Executive summary

1. The purpose of this briefing note is to provide both the Board and all colleagues with a short summary of significant research that has either been published recently, or is due to be published in the near future. We will share this, and future, research briefings with the Responsible Gambling Strategy Board (RGSB).

2. Copies of the full research documents featured in this briefing, or more detailed summaries, are available on request. Full citations of the studies featured in this briefing are provided in the Annex.

3. Key policy implications are highlighted for selected studies.

Gambling Commission Research

4. Gambling participation: activities and mode of access, year to September 2015

5. The following findings are based on a set of questions commissioned by the Gambling Commission in omnibus surveys conducted by ICM Research. These questions ask respondents about their gambling participation in the past four weeks. The data in this report is from the four quarterly surveys conducted in the year to September 2015.

6. Key findings

7. Gambling participation in the past four weeks
   - An average of 47% of respondents had participated in at least one form of gambling in the previous four weeks. This compares with 55% in the year to September 2014 and 55% in the year to September 2013. This decrease has been predominantly driven by a decrease in participation in National Lottery draws.
   - A larger proportion of male than female respondents had participated in gambling in the previous four weeks (50% of males and 44% of females).
   - An average of 14% of respondents had participated in at least one form of online gambling in the previous four weeks.
   - A larger proportion of male than female respondents had participated in online gambling in the previous four weeks (17% of males and 11% of females).
   - If those respondents only playing the National Lottery are excluded, the proportion of respondents who had participated in gambling in the previous four weeks falls to 28%.
   - When respondents only playing National Lottery products online are excluded, the proportion of respondents who had participated in online gambling falls to 9%.
   - An average of 38% of 18-24 year olds had participated in at least one form of gambling in the previous four weeks. This compares with 50% in the year to September 2014 and 46% in the year to September 2013.

8. Participation in each activity
   - The most popular gambling activity was National Lottery tickets with 33% of
respondents having participated in the past four weeks. This compares with 39% in the year to September 2012 and 44% in the year to September 2013.

- This was followed by scratchcards (10%) and other lotteries (11%).
- No other individual activity was participated in by more than 4% of respondents.

9. Gambling involvement

- The most common frequency of participation when looking at an aggregate of all activities for past four week gamblers was ‘once a week’ (39% compared with 41% in the year to September 2014 and 45% in the year to September 2013). There has been a rise in the overall frequency of participation with 20% of respondents reporting to have participated ‘2+ days a week’ compared with 19% in the year to September 2014 and 18% in the year to September 2013.

10. Potential policy implications

- This forms part of our approach to collecting adult gambling prevalence data, allowing us to track participation in different modes and activities, as well as the frequency.

Selected research

11. Social media marketing and gambling: An interview study of gambling operators in Australia Gainsbury, King, Hing & Delfabbro

12. This study interviewed nineteen individuals working in the Australian gambling industry to explore how operators are using social media to engage with users and promote products, their considerations underpinning these actions, and the extent to which responsible gambling practices are included.

13. Key findings

- All operators were active on social media and used these platforms to attempt to increase customer engagement and strengthen existing relationships.
- Gambling-related content was usually balanced against non-gambling content, or operators focused exclusively on non-gambling content.
- Raising revenue was not a direct aim of social media use, but was used as an indirect way to maintain their customer base and attract new customers via favourable ratings and information transfer.
- Few operators provided specific responsible gambling messages, despite being aware of the dangers of targeting vulnerable populations, specifically young people and problem gamblers.

14. Policy implications

- New forms of advertising may present policy makers with different challenges, and may require different regulatory approaches, as they have different objectives to traditional forms of advertising.
- The potential to use social media to provide responsible gambling messages is particularly pertinent given the recent launch of SENET’s #Gamblesmart campaign.

15. Upping the Reinforcement Rate by Playing the Maximum Lines in Multi-line Slot Machine Play Templeton et al
16. This study focused on the effects of “losses disguised as wins” (LDWs) which are gains that total less than the wager on a spin, on multi-line slot machines. The researchers analysed the actual game play of participants (n=83) on two machines with different LDW rates.

17. **Key findings**
   - Regardless of problem gambling status, participants preferred to bet on the maximum number of lines available, and seldom bet on a single line.
   - Players found LDWs significantly more rewarding than losses and equally as rewarding as small wins.
   - Players significantly overestimated the number of times they won more than their spin wager. This miscategorising of LDWs as wins increases the perceived reinforcement rate of a multi-line slot machine.

18. **Policy implications**
   - If misinterpreting losses as wins was shown to sustain and encourage problematic play should consideration be given to provide information to players which corrects this faulty cognition?
   - There are also potentially consumer protection issues if players routinely do not understand a product, and are confused over when they are winning/losing.

19. **Setting Win Limits: An Alternative Approach to “Responsible Gambling”?** Walker et al

20. This study examined the potential of win limits; which are similar to loss limits, except the gambler would cease gambling on reaching a pre-set level of winnings. The authors tested the effect of self-imposed win limits, by getting a group of treatment seekers to play slot machine simulations. The results were compared to a control group who had either loss limits, or no limits at all. The results showed that win limits resulted in improved player performance and reduced venue profits. However the authors conclude that additional research is required to determine whether win limits could be a useful component of a responsible gambling strategy.

21. **Policy implications**
   - Traditionally, the focus of pre-commitment has been on setting limits in relation to monetary loss (and time). This study provides emerging evidence that consideration could be given to more novel harm minimisation approaches.

22. **Responsible gambling training in Ontario casinos: employee attitudes and experience** Quilty, Robinson & Blaszczynski

23. The objective of this study was to evaluate casino employee perspectives of recognising and responding to signs of gambling difficulties. Employees (n=130), both those with and without a managerial role, completed an online survey to gather their perspectives and experiences of responsible gambling. Most respondents indicated that they had received training on how to identify and respond to signs of gambling-related distress in customers. Participants endorsed the feasibility of detecting and responding to signs of problem gambling, but effective responses to such signs were viewed as a challenge.
24. **Regulation and the management of risk in commercial gambling in Great Britain**
   Miers

25. This article discusses the risk model that the Commission has developed in order to assess operator risks to the Gambling Act's licensing objectives. The article examines four factors that affect the implementation of this model: operator compliance, the regulatory environment, the regulatory toolkit and the Commission's approach to its regulatory responsibilities. Also discussed, is the tension between the state, the regulator, the gambling industry and its consumers to which this mode of regulation gives rise. The article goes on to examine the challenges that the Commission faces in seeking to adopt a regulatory stance that is defensible both in terms of the protection of the public and the demands of a liberal market economy.

26. **Policy implications**
   - This article provides an interesting overview of the Commission’s regulatory approach, and the challenges faced in protecting consumers in a market economy.

27. **For Amusement Only: The Availability and Distribution of Simulated Slot Machines in an Urban Center**
   McCardle et al

28. This report investigates the number and geospatial distribution of licensed “simulated slot machines” in Baltimore, USA. The authors find that the number of these machines began decreasing prior to the opening of a new casino, dropping by as much as 50% over 7 years. These machines tend to be in low-income white neighborhoods and are positively correlated with property crime rates.

29. **Policy implications**
   - While only of minor relevance, this provides some further insight into the distribution of machines (albeit in another jurisdiction). The emergence of “simulated” gambling in a land-based context is also of potential interest, and has parallels with social gaming.

30. **Prevalence and Correlates of Problem Gambling in a Representative Sample of Norwegian 17-Year-Olds**
   Hanss et al

31. This report features data collected in a representative sample of 17-year-old Norwegians to investigate prevalence rates of non-problem, at-risk, and problem gambling (as measured by PGSI). Prevalence rates of at-risk and problem gambling were found to be low and similar to those found in previous adolescent studies outside of Norway. The authors found that motivational variables (future gambling intentions, attitudes toward gambling, and gambling-related knowledge) distinguished best between those who did not gamble, non-problem gamblers, and at-risk and problem gamblers. Social variables were also important covariates of adolescent gambling; significant associations were found for family and friends’ approval of gambling, parental monitoring, father’s level of

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1 Baltimore City has granted licenses for “simulated slot machines” under the condition that the machines do not pay out winnings to the player
education, and having relatives or friends with a history of a gambling disorder.

32. **Relationship Between Gambling Severity and Attitudes in Adolescents: Findings from a Population-Based Study** Gori et al

This Italian study used a nationally representative sample of high school adolescents, aged 15–19 years (n=14,910) and a subsample of adolescents (n=5,920), to examine the association of gambling with demographic, environmental and behavioral variables. The analysis showed that at-risk/problem gamblers were more likely to be engaged in behaviors contrary to social rules/law including heavy episodic drinking, tranquillizer/sedatives use, as well as to approve of gambling and have friends who gamble. Risk-perception was not found to be related to gambling. The authors argue that the geographical variability of at-risk and problem-gambling rates suggest that social aspects have to be considered.

33. The following studies also focus on young people and gambling:

- Gambling Risk Amongst Adolescents: Evidence from a School-Based Survey in the Malaysian Setting (Sheela et al)
- The Incidence of Problem Gambling in a Representative Cohort of Swedish Female and Male 16–24 Year-Olds by Socio-demographic Characteristics, in Comparison with 25–44 Year-Olds (Froberg et al)

**Measuring gambling participation, problem gambling and gambling-related harm**

35. **An Examination of a Proposed DSM-IV Pathological Gambling Hierarchy in a Treatment Seeking Population: Similarities with Substance Dependence and Evidence for Three Classification Systems** Christensen et al

This study examines a previously proposed hierarchy of classifying gambling disorders according to the DSM-IV screen. According to this hierarchy, endorsement of 1-2 criteria would result in a classification of ‘At-risk’, 3–4 ‘Problem’, 5–7 ‘Low Pathological’, and 8–10 ‘High Pathological’. The article examines this proposed hierarchy using data from treatment seekers (n=4,349) in Australia. The results suggested significant complexities in the frequencies of criteria reports and relationships between criteria.

36. **Policy implications**

- The DSM-IV is one of the problem gambling screens used in the Commission’s large scale surveys (the health surveys, and before that the British Gambling Prevalence Surveys). These surveys have only used the DSM-IV screen to classify gamblers into ‘non-problem’ and ‘problem’ groups, and have not had an ‘at-risk’ classification. One of the reasons for this dichotomous classification is that this screen was developed and validated in a clinical context (as is this study). There is the potential to explore validation of these additional classifications in a survey context if it was felt necessary.

38. **Comparison of telephone RDD and online panel survey modes on CPGI scores and co-morbidities** Lee et al

This study compared the influence of two survey modes on problem gambling scores and co-morbidities. An identical gambling survey was administered to two samples; one
selected via random digit dialing (RDD) of mobile phones, and one online panel. The online panelists were found to have significantly higher levels of tobacco use, drug or alcohol problems and mental health problems, higher employment status and lower happiness levels. However, even when controlling for these variables, problem gambling scores for the online panel were significantly higher than those for the telephone interview. The authors argue that this is due to higher levels of pathology among online panelists combined with potentially more valid self-reports due to enhanced anonymity.

40. **Policy implications**
   - The Commission utilises both telephone RDD and online survey methodologies.
   - The Commission runs a problem gambling ‘mini-screen’ in a telephone survey. This study suggests that using an online approach may lead to more accurate self-reporting. However, it is important to note that an online panel or survey will have its own set of biases which would affect any estimate obtained. For example, we know online samples are often skewed towards gamblers generally, and in particular more heavily engaged gamblers. It is possible that estimates obtained online are an over-estimate, rather than the telephone sample being an under-estimate.

41. **National estimates of Australian gambling prevalence: findings from a dual-frame omnibus survey.** Dowling et al.

42. This study aimed to identify Australian gambling participation and problem gambling prevalence using a dual-frame (50% landline and 50% mobile telephone) computer-assisted telephone interviewing methodology. The study also explored the predictors of sample frame and telephone status, and the degree to which those things moderate relationships between respondent characteristics and problem gambling. Compared to the landline sample frame, the mobile frame was more likely to gamble on five or more activities, display problem gambling, and endorse PGSI items.

43. **Policy implications**
   - The Commission’s telephone omnibus survey (our main measure of gambling participation, and which contains the problem gambling mini-screen) uses a sample which contains 15% mobile phone numbers. Assuming it can be generalised to a British context, this study would suggest a smaller proportion of mobile phones in our sample could possibly be leading to a lower estimate of problem gambling.
   - In 2013 we conducted some pilot work to explore this effect. When we used a sample which was a 50/50 split of mobiles and landlines the mean mini-screen scores obtained were no different to the normal sample frame (i.e. 15% mobiles, 85% landlines).

44. **Development and validation of the gambling problems scale** Arterberry et al

45. This study examined the initial psychometric properties of the new Gambling Problems Scale (GPS), developed for the college student population. Participants (n=334) were college students who had gambled in the past 60 days, and who were experiencing gambling-related problems (as defined by the South Oaks Gambling Screen or Brief Biopsychosocial Gambling Index). Factor and reliability analyses were conducted to assess the validity and reliability of scores obtained on the new measure. The authors conclude that the GPS may be a useful tool for researchers and clinicians interested in
Impacts of problem gambling

46. Les comportements violents: comparaison des couples selon que l'homme est perçu ou non par sa conjointe comme un joueur problématique Goulet & Giroux

47. This study used telephone interviews to compare heterosexual couples in which the woman perceives her male partner as a problem gambler (n=54) with couples in which the partner is perceived as a non-problem gambler (n=102). Questions were asked regarding the types and severity of violent behaviors inflicted and experienced by the women. Compared to women with a non-problem gambler partner, women with a perceived problem gambler partner were more likely to report both committing and being victim of physical and psychological/verbal violence.


49. This study reports on a new measure of gambling-related family impacts, the PG-FIM (Problem Gambling Family Impact Measure). Treatment-seeking problem gamblers (n=212) were most likely to endorse items related to: trust, anger, depression/sadness, anxiety, distress due to gambling-related absences, reduced quality time and communication breakdowns. Younger, more impulsive, non-electronic gaming machine (EGM) gamblers who had more severe gambling problems reported more financial impacts; non-EGM gamblers with poorer general health reported more increased responsibility impacts; and more impulsive non-EGM gamblers with more psychological distress and higher gambling severity reported more psychosocial impacts.

50. From problem gambling to crime? Findings from the Finnish National Police Information System Lind et al

51. This study used problem gambling-related reports from the Finnish National Police Information System to explore the links between crime and problem gambling. Analyses found that the majority of the cases were non-violent property crimes, committed at home or at the workplace. The authors suggest that they have determined that problem gambling, through financial difficulties, does indeed lead to crime.

52. Policy implications (all studies in section)

- These studies help us understand the types and scale of harms associated with gambling, and are relevant to the work currently being commissioned by the Responsible Gambling Trust on understanding what constitutes gambling-related harm, and how is best to account for it.

Other research

53. Gambling in the Midst of Economic Crisis: Results From Three National Prevalence Studies From Iceland Thor Olason et al

54. This study reports on the results of three national prevalence studies conducted before and after the economic collapse in Iceland. The same methodology and measures were used in all three studies to ensure comparability. Past year gambling participation increased across most types of gambling. Only participation on EGMs declined significantly after the economic collapse. The prevalence of problematic gambling increased, a change which is probably explained by an increase in card and internet
gambling among young men. Overall, the results indicate that serious national economic recessions have differential effects on gambling behavior.

55. Other research studies this quarter which Board may be interested in include:

- A Descriptive Study of Gambling Among Emerging Adult Males in French-Speaking Switzerland (Tomei et al)
- Demographic Risk Factors and Gambling Preference May Not Explain the High Prevalence of Gambling Problems Among the Population with Migration Background: Results from a German Nationwide Survey (Kastirke et al)
- Internet Gambling Among Community Adults and University Students in Macao (Wu et al)
- First Evidence of Comorbidity of Problem Gambling and Other Psychiatric Problems in a Representative Urban Sample of South Africa (Sharp et al)

**Psychology of gambling – motivations, perceptions and cognitions**

56. The following studies focus on gamblers’ motivations, perceptions and cognitions:

- Gambler Risk Perception: A Mental Model and Grounded Theory Analysis (Spurrier, Blaszczynski & Rhodes)
- A Comparison of the Status, Legal, Economic, and Psychological Characteristics of Types of Adult Male Gamblers (Weinstein et al)
- The Dark Side of Authenticity: Feeling “Real” While Gambling Interacts with Enhancement Motives to Predict Problematic Gambling Behavior (Lister et al)
- The Temporal Stability and Predictive Ability of the Gambling Outcome Expectancies Scale (GOES): A Prospective Study (Flack & Morris)
- Gambling Motives: Application of the Reasons for Gambling Questionnaire in an Australian Population Survey (Francis et al)
- Validation of the Gambling Motives Questionnaire in Emerging Adults (Lambe et al)
- Reduced inhibitory control predicts persistence in laboratory slot machine gambling (Devos et al)
- Impulsivity and predictive control are associated with suboptimal action-selection and action-value learning in regular gamblers (Lim et al)
- Adolescent gambling and problem gambling: examination of an extended theory of planned behaviour (St-Pierre et al)
- Testing the Acquired Preparedness Model: Predicting College Student Gambling Frequency and Symptomatology (Ginley et al)

**Treatment and treatment-seeking**

57. The following studies focus on treatment and treatment-seeking in relation to problem gambling:

- Gambling-Related Problems as a Mediator Between Treatment and Mental Health with At-Risk College Student Gamblers (Markman-Geisner, Bowen and Lostutter)
- A Preliminary Study of an Integrated and Culturally Attuned Cognitive Behavioral Group Treatment for Chinese Problem Gamblers in Hong Kong (Fu Keung Wong et al)
• Abstinence versus Moderation Goals in Brief Motivational Treatment for Pathological Gambling (Stea, Hodgins & Fung)
• Congruence Couple Therapy for Pathological Gambling: A Pilot Randomized Controlled Trial (Lee & Awosoga)
• Effects of Affective and Anxiety Disorders on Outcome in Problem Gamblers Attending Routine Cognitive–Behavioural Treatment in South Australia (Smith et al)
• Smoking and Gambling Disorder: Does Tobacco Use Influence Treatment Outcome? (Ronzitti et al)
• Compulsivity and Impulsivity in Pathological Gambling: Does a Dimensional–Transdiagnostic Approach Add Clinical Utility to DSM-5 Classification? (Bottesi et al)
• The role of homework in exposure-based CBT outcome for problem gambling (Riley)
• Predictors of help-seeking for gambling disorder from the transtheoretical model perspective (Kowatch & Hodgins)
• Self-stigma coping and treatment-seeking in problem gambling (Horch & Hodgins)
Annex A: Citations


Annex B: Summary Table

Exempt under section 36 of the Freedom of Information Act