

RESEARCH UPDATE

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Victorian
Responsible
Gambling
Foundation

Gambling
Information
Resource Office

About us

The Victorian Responsible Gambling Foundation, through the Gambling Information Resource Office, is committed to keeping you up-to-date with the latest gambling research.

Research Updates are released every other month and are designed to give a quick and easy to understand overview of the latest in academic gambling research. Each update summarises four to six pieces of research, highlighting key findings and their implications for the gambling field.

Gambling prevalence in South Australia (2012)

Social Research Centre

What was the research?

This report outlines findings from the fifth survey of gambling prevalence in South Australia (SA) since 1995. Its methodology largely replicates the fourth survey conducted in 2005.

The survey examined:

- participation in gambling activities
- the prevalence of problem gambling
- awareness and use of gambling support services.

The research was undertaken by the Social Research Centre and funded by the Office for Problem Gambling in the South Australian government.

How was the research conducted?

The 2012 research involved a telephone survey of 9,402 South Australians aged 18 or over. Participants were asked a series of questions covering:

- sociodemographics
- gambling participation, frequency, spend and type of gambling
- problem gambling risk status (based on Canadian Problem Gambling Severity Index)
- help seeking for problem gambling.

With as many as 19 per cent of households now using only a mobile phone, the study included mobile phone and landline surveying as follows:

- 7,133 survey interviews were conducted with a random digit dial landline sample
- 2,375 participants were contacted from a list-based mobile phone sample.

Both the mobile and landline samples for the study were stratified by geographical location, so interviews would be equally distributed across government regions in SA.

The response rate for this survey was 32.5 per cent which is comparable to other similar studies.

One limitation of the survey is that participants in the mobile phone portion of the sample were selected from a list of mobile

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phone numbers known to the researchers. This means the mobile phone sample is not random and may not be representative of the population. Given this, results from the mobile phone survey should be treated with caution.

What were key findings of the research?

Gambling behaviour

- In the last 12 months, 68.8 per cent of South Australian adults had participated in some form of gambling, a rate similar to that found in 2005
- The most popular gambling activities were buying lottery tickets (55.5 per cent), playing gaming machines (26.5 per cent), buying scratch tickets (20.7 per cent) and betting on horse or greyhound racing (20.5 per cent)
- Since 2005, there has been a significant increase in the numbers participating in lotteries, sports betting and betting on racing and a significant decrease in playing pokies
- In the past year, 6.1 per cent of South Australians had participated in sports betting and 5.3 per cent had used the internet to gamble
- The most common online activities were betting on horse or greyhound racing (2.1 per cent), sports betting (2.0 per cent) and buying lottery tickets (1.6 per cent)
- There was a reduction in the number of South Australians gambling frequently (once a fortnight or more) from 14.5 per cent in 2005 to 12 per cent in 2012

Problem gambling and help seeking

- In 2012, 0.6 per cent of South Australian adults were problem gamblers, 2.5 per cent were moderate risk gamblers and 7.1 per cent were low risk gamblers
- Higher rates of problem gambling were found among:
 - men
 - people with no formal post-secondary education
 - people living in households with only one person aged 16 years or more
 - people exhibiting signs of financial stress
 - people who are separated or divorced
 - Aboriginal and Torres Strait Islander people
 - people with low annual household incomes
- Just over half of problem gamblers started gambling before turning 20 (52 per cent)

- During the past 12 months, 24.5 per cent of problem gamblers had sought help for problems relating to their gambling
- During the past 12 months, 19.4 per cent of problem gamblers who attended a venue had requested self exclusion from a gambling venue
- Close to half (45 per cent) of problem gamblers were likely to report their health as poor or fair, compared to less than 14 per cent of all people who had gambled in the past year

How might this research be useful?

This study found a similar prevalence of problem gambling to the 2009 Victorian prevalence study (0.6 per cent in SA compared with 0.7 per cent in Victoria).

The study also found a similar prevalence of gambling to Victoria (68.8 per cent in SA compared with 73.1 per cent in Victoria). In fact the prevalence of gambling may be more similar than these figures suggest as the Victorian study captured additional gambling activities.

These similarities are not surprising given similar gambling environments, adding to the confidence with which other research results from South Australia may be applicable in Victoria and vice versa.

While the study found an increase in sports betting from 2005, the relatively small size of this increase (from 4.2 per cent to 6.1 per cent) is contrary to popular perception created by an explosion in

sports advertising. Sports betting remains a relatively minor form of gambling in terms of participation compared to pokies (26.5 per cent) and racing (20.5 per cent)

The study found 5.3 per cent of South Australians had used the internet to gamble, compared with eight per cent of participants in a recent national study (Gainsbury et al 2013). Placing bets on racing was the most common way to gambling using the internet.

The survey provides further evidence that rates of help seeking for gambling problems are low. Approximately a quarter of problem gamblers sought help, and when moderate risk and problem gamblers are considered together, this drops to 7.6 per cent.

Want to know more?

The full report from the study is [located here](#).

How to cite this research

Social Research Centre (2013) Gambling Prevalence in South Australia (2012). July 2013. Retrieved 24 January 2014.

Adolescent simulated gambling via digital and social media: an emerging problem

Daniel King, Paul Delfabbro, Dean Kaptsis and Tara Zwaans

What was the research?

The recent expansion of simulated and monetary gambling activities to the digital world has led to growing concerns about the potential for adolescent involvement in gambling activities.

Simulated gambling refers to digital, gambling-like activities that do not directly involve monetary gain but are otherwise the same as gambling.

This study, an exploration of adolescent simulated gambling, had three aims:

- to examine the prevalence of adolescent involvement in simulated gambling
- to measure the association between simulated gambling and monetary gambling activities
- to assess whether simulated gambling exposure was associated with indicators of pathological gambling.

This research was conducted by a team from the School of Psychology at the University of Adelaide and received partial funding under a 2012 Young Researcher Grant from the European Association for the Study of Gambling.

How was the research conducted?

This study surveyed 1287 high school students aged 12-17 from seven secondary schools in Adelaide, SA. In addition to providing demographic information, participants responded to questions to determine:

- electronic media use
- gambling behaviour
- indicators of pathological gambling and mental health.

Responses from all questions were collated and analysed using a number of statistical techniques.

Findings from the study need to be considered in the context of several limitations:

- the study does not follow participants over time and therefore cannot answer questions about causality (e.g. Does simulated gambling cause monetary gambling?)
- data on past involvement in gambling activities is self-reported, considered less accurate than other forms of data collection
- due to a small rate of pathological gambling found in the study, gamblers were classified at-risk with relatively mild symptoms
- a number of potentially predictive risk factors for pathological gambling were not considered in this study (i.e. impulsivity or family history of pathological gambling).

What were key findings of the research?

Simulated gambling

- 32 per cent of participants had participated in simulated gambling at least once in their lifetime and 13 per cent had participated in simulated gambling in the past year
- 1 in 10 participants had used gambling apps on Facebook and 1 in 20 had used gambling applications on a smartphone
- The most commonly reported experience of past exposure to simulated gambling was gambling in video games
- The most popular types of simulated gambling activities amongst participants were online card games, EGMs and sports betting activities

Monetary gambling and pathological gambling risk

- Monetary gambling activities amongst participants included scratch tickets (15.3 per cent), race wagering (10.4 per cent), card games (9.4 per cent) and internet gambling (2.3 per cent)
- 1 per cent of participants were probable pathological gamblers

Association between simulated gambling and monetary gambling

- Past involvement in simulated gambling activities predicted indicators of pathological gambling
- Over 40 per cent of those playing simulated gambling reported a preoccupation with gambling or an intention to gamble in the future, compared to 20 per cent of those not involved in simulated gambling
- For at-risk gamblers (a group combining all gamblers with a greater than no-risk status), participation in simulated gambling activities was more prevalent than expected

How might this research be useful?

This study provides an insight into adolescent engagement in both simulated and monetary gambling activities via electronic devices such as smart phones and video games.

The study supports previous studies which provide evidence that underage adolescents participate in monetary gambling. Although the rate of on-line monetary gambling in this study was relatively low (2.3 per cent), the study suggests that greater industry and regulatory efforts are required to address the issue of underage gambling.

Finally, the study provides a valuable preliminary insight into the relationships between simulated gambling, monetary gambling and digital media, and highlights the need for further research in this field.

Want to know more?

The full report from this study is [available in the journal Computers in Human Behavior](#).

How to cite this research

Daniel King, Paul Delfabbro, Dean Kaptis, Tara Zwaans (2014). 'Adolescent simulated gambling via digital and social media: an emerging problem' *Computers in Human Behavior* 31, 305-313.

The relationship between gambling, significant life events, co-morbidity and associated social factors

Louise Holdsworth, Elaine Nuske and Nerilee Hing

What was the research?

This study investigated the relationships between gambling behaviour, significant life events, psychological conditions, social factors and gambling-related harm in people who gamble.

The research was conducted by Louise Holdsworth, Elaine Nuske and Nerilee Hing from the Centre for Gambling Education and Research at Southern Cross University. It was funded by an early career researcher grant from the Victorian Responsible Gambling Foundation.

How was the research conducted?

The study involved qualitative telephone interviews with participants who were asked a series of questions about gambling, life events and health. The study involved two groups of participants:

- 20 participants who gambled without experiencing problems
- 20 participants who gambled and experienced problems as a result of their gambling.

Significant life events considered in the study included death of a spouse, major change in health status and significant problems at work. Common co-morbidities investigated in the study included depression, anxiety, other mental health conditions and alcohol and substance abuse.

As a qualitative study with a small sample size, one of its limitations is it does not provide a quantitative measure of the extent to which significant life events, co-morbidities and other social factors influence gambling behaviour.

What were key findings of the research?

- Recreational and problem gamblers had experienced one or more significant life events in their lifetime
- One or multiple psychological co-morbidities were more common among participants who experienced problems because of their gambling
- Social support and connectedness were important factors in reducing stress associated with challenging life circumstances
- Participants who did not experience problems with their gambling described having strong positive social networks and personal resilience and these were defining factors

contributing to whether they increased their gambling when significant life events occurred

- Participants who experienced problems with their gambling indicated that social factors such as early exposure to gambling, peer pressure and poor connection to the community, had contributed to an increase in their gambling activity
- No difference was found between male and female participants in response to significant life events

How might this research be useful?

This exploratory study provides valuable insights into personal gambling histories and their complex relationship to life events and health.

The research builds on a small but growing body of research on the relationship between social connectedness and gambling. Findings from the study suggest reducing isolation and fostering local social and community networks are key factors in building resilience in those whose experience of significant life events might lead to negative gambling behaviour.

Co-morbid problem gambling in substance users seeking treatment

Sean Cowlshaw

What was the research?

This research provided an estimate of the prevalence of pathological and problem gambling among people in treatment for substance use problems and explored gambling problems among those seeking treatment for substance use.

The study was conducted by Dr Sean Cowlshaw, originally at Monash University and now co-located at Lancaster University (United Kingdom) and the Australian National University. It was funded through an early career researcher grant from the Victorian Responsible Gambling Foundation.

How was the research conducted?

The research was a desktop study involving two parts:

- a systematic review of published studies on the prevalence of comorbid pathological and problem gambling in treatment for substance use problems
- a secondary analysis of data from the [United States National Epidemiological Survey on Alcohol and Related Conditions](#).

Systematic review

The review component involved analysis of 26 studies to:

- estimate the prevalence of pathological and problem gambling among people in substance use treatment
- examine variability across the studies
- investigate publication bias (bias stemming from a tendency for more extreme results to be published).

Secondary analysis

This component of the study involved secondary analysis of data from 272 participants who had participated in the [United](#)

The findings in relation to comorbid psychological conditions and problem gambling also highlight the importance of a collaborative and coordinated approach to the provision of gambling and health support services.

Want to know more?

The full report from the study is located on the [foundation's website](#).

How to cite this research

Louise Holdsworth, Elaine Nuske, Nerilee Hing (2013). The relationship between gambling, significant life events, co-morbidity and associated social factors. Victoria, Australia: Victorian Responsible Gambling Foundation.

[States National Epidemiological Survey on Alcohol and Related Conditions](#). This was a subset of participants who were problem or pathological gamblers and had received treatment in the past year for substance use problems.

The analysis investigated associations between symptoms of pathological gambling in substance use treatment and other variables including indicators of mental health, physical health and psychosocial difficulties.

What were key findings of the research?

The systematic review of studies of substance use treatment and problem gambling found:

- 23 per cent of people seeking substance use treatment are at-risk gamblers and 14 per cent are problem gamblers
- high levels of variability in prevalence that is not explained by methodological factors
- some evidence of publication bias which may have inflated the prevalence percentages above.

Secondary analysis of a major United States alcohol and drug study found:

- no association between pathological gambling and key mental health conditions in the past year (i.e. depression, anxiety), however significant associations between pathological gambling and lifetime depression and a range of personality disorders
- associations between pathological gambling and financial and interpersonal difficulties.

How might this research be useful?

The research provides a thorough analysis of available evidence relating to problem and pathological gambling among people in substance use treatment, and offers strategies for screening to

better support clients with these co-morbidities.

The relatively high prevalence of problem gambling in substance use treatment identified in this research highlights the need for a co-ordinated treatment approach across gambling and other treatment sectors.

The secondary analysis builds on existing evidence about the associations between significant life events and gambling problems.

The study also highlights the lack of Australian studies into gambling and current and lifetime co-morbidities and the need for local research to address this gap.

The impact of electronic gaming machine jackpots on gambling behaviour

Matthew Rockloff, Nerilee Hing, Phillip Donaldson, En Li, Matthew Browne and Erika Langham

What was the research?

This research examined how jackpots, large EGM prizes that pay out infrequently, influence the behaviour of EGM gamblers.

The study also examined the effect of jackpot expiry on EGM gambling behaviour. Jackpot expiry refers to where a jackpot is no longer available after a fixed period of time or number of spins.

This research was undertaken through Central Queensland University and funded by Gambling Research Australia.

Types of jackpots

Progressive jackpots

The prize amount grows incrementally with every new bet placed

Non-progressive jackpots

The prize is fixed, and does not increase with each bet

Deterministic jackpots

The prize will be paid out after a fixed interval, that is not known to the player

Non-deterministic jackpots

The prize is paid out randomly

Hidden jackpots

The prize amount is hidden from players

Mystery jackpots

The exact combination of symbols that will trigger the jackpot is unknown to the player

Linked or socially networked jackpots

The prize can be won on one of several machines, allowing for

Want to know more?

The full report from the study is on the [foundation's website](#).

How to cite this research

Sean Cowlshaw (2013) 'Comorbid problem gambling in substance users seeking treatment', Victorian Responsible Gambling Foundation.

higher prizes. This type of jackpot may operate within a venue (local area) or over several venues (wide area).

How was the research conducted?

This study involved experiments using a simulated gaming machine and observations of EGM gamblers in venues.

Experimental EGM gambling

Participants played a simulated gaming machine on a laptop computer, which was programmed to provide a fixed sequence of wins and losses for twenty spins. After this point, all spins would result in a loss.

Participants gambled with real money – the compensation given to them for participating in the study.

The simulation part of the study involved four experiments:

- comparison of progressive, non-progressive, deterministic and non-deterministic jackpots (123 participants)
- examination of hidden and mystery jackpots (107 participants)
- simulation of linked jackpots (114 participants)
- simulation of jackpot expiry (130 participants).

Each of the experiments was designed to allow comparisons between the types of jackpots studied. The researchers measured average bet size, speed of betting, total spins played and final payouts.

The researchers also asked about the player's overall enjoyment of the session. In some experiments, the researchers also measured physiological arousal as a result of the gambling.

Observed EGM gambling

The researchers followed 234 participants as they gambled in three Queensland gaming venues. The researchers observed machine characteristics, including jackpots available on the machine, and play characteristics. Half of the participants were primed to think about winning a jackpot before the observations.

What were key findings of the research?

The experimental component of this research found that:

- large jackpots were associated with larger bet sizes in several of the experiments
- players placed the largest bets on EGMs that were deterministic and non-progressive suggesting that high-value deterministic jackpots may encourage more intensive play
- large jackpots that were non-deterministic and progressive also promoted high bet sizes
- hidden jackpots may be linked to more intense gambling, perhaps because a hidden jackpot suggests a very large prize
- there was no evidence that mystery jackpots influenced gambling intensity
- there was no difference in player enjoyment between deterministic and non-deterministic and progressive and non-progressive jackpots, or with hidden or mystery jackpots
- linked jackpots were not associated with any significant differences in player behaviour or enjoyment
- jackpot expiry was effective in limiting player losses, and did not impact on player enjoyment.

The observational component of this project found that:

- machines with jackpots were associated with a greater spend on the machines across all participants
- at-risk gamblers were more likely to play on machines with jackpots, and played more intensively on machines with jackpots
- when primed to think about jackpot wins, at-risk gamblers were more likely than low risk gamblers to select large jackpot machines

- participants with gambling-related problems spent a longer total time at the venue gambling, but played relatively fewer spins (possibly linked to higher average bet sizes)
- participants who experienced wins were at greater risk of losing more money overall (possibly due to the intensification of gambling behaviour after a win).

How this research might be useful?

- The findings from this study have important implications for future EGM policy making in Australia and overseas.
- The results indicate that jackpot characteristics can encourage risky gambling behaviour.
- The findings suggest that limiting jackpot size may be a valuable measure to reduce harm from gambling and that jackpot expiry can be used as an effective measure for reducing gambling losses.
- Moreover, in many cases such alterations need have no negative effect on the consumers enjoyment of the product.

Want to know more?

The full report from the study [is located here](#).

How to cite this research

Matthew Rockloff, Nerilee Hing, Phillip Donaldson, En Li, Matthew Browne, Erika Langham (2014) The impact of electronic gaming machine jackpots on gambling behaviour. Gambling Research Australia. January 2014.

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