Report into the possible connection between problem gambling, drug usage and criminal activity among clients of OARS SA.

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INDEPENDENT GAMBLING AUTHORITY POSITION STATEMENT

While a sizeable body of research highlights a potential link between problem gambling and crime, the nature of this relationship and associated risk factors are not well understood and limited data is available that is specific to the South Australian context.

Various approaches have been utilised to examine the link between problem gambling and criminal behaviour, including surveying offenders who are both incarcerated and living in the community. A pertinent research consideration in examining the possible connections between problem gambling and crime within correctional populations is that problem gambling is likely to be one of a range of factors implicated in offending behaviour and that other risk factors, such as substance use, may also contribute to any observed relationship. Further, findings made in other jurisdictions along this line of inquiry provide only limited insights and ultimately cannot be generalised to a South Australian environment.

In view of these considerations, the Authority grant funded the Offenders Aid and Rehabilitation Services of SA Inc (OARS) to undertake a study into the relationship between problem gambling, criminal activity and substance use among its clients. From the outset, the Authority was aware of the inherent difficulty in establishing a clear link between problem gambling and crime and in providing definitive conclusions on the basis of the data. That study is the subject of this report. The work is the work of OARS, its contractors and staff, and it speaks for itself.

This leads to the question of whether and how the Authority, as the funding body, will apply this work. While all involved would have preferred this study to have provided solid causal connections with unequivocal implications for policy, the undertaking of this small grant funded project has served a useful purpose in defining the scope of what might realistically be achieved.

The Authority is of the view that the study has operated as an exploratory investigation into problem gambling and its relationship with crime. The study captures some interesting relational findings, but in the view of the Authority the findings are equivocal. Any observed relationship between the variables mentioned in the study cannot not be regarded as causal or significant, although it might provide a useful pointer to avenues of policy innovation and further study.

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This research was conducted by Andrew Paterson of Empower Justice Services on behalf of the Offenders Aid and Rehabilitation Services of SA Inc.

Jayne Marshall and Sophie Ransom from the Office of Crime Statistics and Research undertook the data analysis which was of the highest quality.

Staff of the Independent Gambling Authority assisted in the editing of the report.

Leigh Garrett CEO OARS SA & Liz O'Keefe, Manager Development, Policy & Quality Assurance OARS SA assisted with the research design and editing of the report.

OARS SA staff worked particularly hard to ensure that clients were available for the purposes of this research.

Most particularly thanks goes to OARS SA clients who agreed to be interviewed.

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Executive Summary

This research project arose out of discussions in 2006 between the Independent Gambling Authority (IGA) and Offenders Aid and Rehabilitation Services of SA (OARS) Inc. Out of these discussions came the proposal that research be conducted into possible connections between gambling behaviour (as determined by the Canadian Problem Gambling Index), other addictive behaviour, and criminal behaviour. It was additionally proposed that contextual demographic information be collected from OARS SA clients concerning family structures, gender, and education. The research was designed to capture both quantitative and qualitative data.

The main research aims were:

1. Examine the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and criminal activity in clients of OARS SA.
2. Examine the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and alcohol/illicit drug use in clients of OARS SA.
3. Examine the differences between male and female problem gamblers.

Andrew Paterson of Empower Justice Services was contracted to design a research questionnaire in consultation with OARS SASA staff and the Office of Crime Statistics and Research (OCSAR) of the South Australian Government. The resultant questionnaire, incorporating the Problem Gambling Assessment subsection of the Canadian Problem Gambling Index (CPGI), was administered to one hundred clients of OARS SA programs either face to face or on the telephone. Interviews were conducted between November 2008 and March 2009. Participants were selected through a sample of convenience and all clients of OARS SA who were approached agreed to be interviewed. Not all interviewees had committed criminal offences nor had all gambled. The research data (in the form of completed interview forms) was processed by OCSAR in close consultation with the researcher.

Significant results

Demographic profile of respondents:

- The average age of interviewees was 37.6 years.
- The average level of education attained was year 10.
- Most respondents were born in Australia (89%). Offences committed were most commonly drug related (possessing to manufacturing and selling followed by theft or similar offences).
- 25% of respondents reported a family history of gambling.
- Most interviewees were not in a stable relationship and most had children.
- Many of those interviewed had lost contact with their birth families and had little contact with their children.
- Most interviewees were unemployed at the time of interview. This study was not able to determine the impact on gambling by employment status.
- Most interviewees had been charged with criminal offences and had served prison sentences.
- There were no significant gender differences in drug use, gambling activity or the use of drugs while gambling. However, women were half as likely to gamble in support of a drug habit as men in the interview sample.

Problem gamblers:

- The CPGI classified 43.5% of participants as “problem gamblers” in comparison to the 0.4% generally reported in the general population (Department for Families and Communities, 2005).
- 50% of respondents classified as problem gamblers by the CPGI reported that they had committed a crime to fund gambling activity.
- 29% of respondents who reported offending behaviour admitted offences that were committed to fund gambling activities. The most common offences were fraud (50%), break and enter (26.9%), and theft and robbery (19.2%).

- 45% of problem gamblers reported gambling to support a drug habit. 57.5% reported that drug use made their gambling worse. A further 45% reported they had used drugs to deal with stress resulting from problem gambling.
- 70% of problem gamblers reported drug use while gambling.

Other findings of interest:

- Current drug use among respondents who used drugs (more than one type of drug could be nominated) included cannabis (59.8%), amphetamines (59.8%) and alcohol (43.9%). Heroin was mentioned by 25 respondents usually in terms of past, not current, use.
- Poker machines were by far the most preferred form of gambling (87%)
- Of those who had committed a crime to fund gambling activities, 20 (77%) reported that they had been charged or imprisoned as a result of gambling related offences. Only six of these respondents reported that their gambling behaviour was introduced into court in evidence or as a defence in relation to these offences.
- 34% of those interviewed reported they had gambled while in prison.

Conclusions

The most important finding of this research was that 50% of problem gamblers reported having committed a crime to fund their gambling activity. This is an interesting result and highlights a clear relationship between problem gambling and offending in this sample. The implications of this finding should focus government attention on the importance of clearly identifying problem gamblers and prompting delivering efficacious treatment and support services to reduce their gambling activity. Viewed in the context of the additional finding that 77% of those who committed a crime to fund gambling activities were charged or imprisoned as a result of gambling related offences, it becomes clear that crime precipitated by problem gambling is likely a significant contributor to the costs of the criminal justice system.

The report identifies significant levels of problem gambling activity among OARS SA clients at a level more than ten times above the community average. This is likely to be indicative of the offender population in general and highlights the need for further research to establish the

extent of this problem. Additionally, the implications of this report suggest further development of assessment processes to be applied in court aimed towards better identifying problem gamblers as well as the implementation of a greater level of comprehensive programmatic intervention in order to reduce gambling and crime related activity.

It is clear that an identifiable relationship exists between the use of drugs (especially marijuana and methamphetamine) and problem gambling. It is unclear whether drug use has caused the gambling problem in these cases or vice versa. The most likely conclusion that can be drawn in this case is that both of these addictive behaviours have an aggravating effect on one another. This suggests that methamphetamine use may be an effective predictor of problem gambling and drug court assessments might be well served by consideration of gambling support services. In addition, poker machines were overwhelmingly the preferred form of gambling for clients of OARS SA. Given the high proportion of problem gamblers in this study, attention needs to be paid to the development of treatment programs prior to release from prison with support services post-release specifically targeted at poker machines.

A clear connection exists between the commission of criminal offences and problem gambling among clients of OARS with an additional aggravating relationship between problem gambling behaviour and drug use.

Introduction

In mid 2006 conversations began between staff of OARS SA and the Independent Gambling Authority (IGA) regarding OARS SA undertaking research into possible relationships between problem gambling (as defined by a measure such as the Canadian Problem Gambling Index) and criminal activity among its clients. In late 2006 an application for funds to conduct the proposed research was made by OARS SA to the IGA.

Anecdotally, OARS SA has witnessed a significant increase in gambling related activity as a part of the complex mix of issues facing its clients. As OARS SA interacts with an increasing number of female offenders, the question of differences in gambling behaviour between men and women had currency. In the context of the imperative to redesign services based on need, OARS SA considered that some formative research could be undertaken to establish the currency of previous research and to answer the following questions:

1. What is the nature of the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and criminal activity in clients of OARS SA?
2. What is the nature of the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and other addictive behaviours such as alcohol/illicit drug use in clients of OARS SA?
3. Do female clients of OARS SA differ significantly from males in their criminal activity, problem gambling and other addictive behaviour?

Previous Research

Problem gambling is a relatively recent phenomenon but in the last few years the relationship between gambling and crime has gained greater currency. There has been an increased volume of research world-wide but local research is sparse and characterized by a consistent lack of consensus regarding the link between gambling and crime. Much of the previous research highlights the difficulty in establishing links between gambling and crime. The Australian Gambling Review of June 2007 (Delfabbro, 2008, AGR3) contains a comprehensive review of problem gambling studies involving offenders both incarcerated and in the community. Delfabbro cautions that when aiming to make some general comments about the relationship between gambling and crime:

> "There is one important caveat that needs to be borne in mind. Many people in prison commit a range of crimes, and often do so over an extended period. They also tend to experience problems with a range of issues, including substance abuse, anger management and symptoms of psychopathology (e.g. Personality disorders)" (Delfabbro, 2008, p. 23).

He then goes on to argue that it is therefore difficult (if not impossible) to distinguish possible links between offending and problem gambling. There is, however, some evidence within previous studies which suggests that such a relationship does exist.

Marshall's 1998 study conducted in Yatala Labour Prison in South Australia involved interviews with 103 participants. Within the study, Marshall reported that 35% of those interviewed scored highly on Lesieur and Blume's (1987) South Oaks Gambling Screen (SOGS) compared with 1.5%-2.0% of the general population and that 26% admitted to having committed gambling related offences. Within a Western Australian study of 60 prisoners 21% met the diagnostic criteria for problem gambling and over half reported having committed gambling related offences (Blaszczynski, 1994). Lahn and Grabovsky (2004) found 34% of their sample of offenders was identified as problem gamblers using the SOGS whilst Powis (2002) reported a lower level of 17.4% using the CPGI. Furthermore, 25% of participants reported that gambling had led them into crime and 47% indicated they had committed non-violent property crimes to pay off gambling debts.

Another example of this self-reported connection between gambling and criminal activity is the earlier Queensland study conducted by Boreham et al. (1996, cited in Delfabbro, 2008) in which 7% of prisoners reported that their gambling on pokies had been a factor in their imprisonment and 11% reported gambling problems in general had contributed to their offending. Delfabbro (2008) refers to prison studies in New Zealand which indicated that 51% of those interviewed committed crime to pay off gambling debts. 16% of that sample was also identified as problem gamblers by the SOGS. Delfabbro further comments that gambling may not have been the primary cause of offending behaviour; rather prisoners were 'criminals first and problem gamblers second'.

It is not known whether the high percentages of problem gamblers identified within the preceding research reflect the behaviour of these individuals prior to incarceration or whether it is an artifact of residing in a correctional facility. Meredith (2001) made some attempt to respond to this issue by surveying a number of non-custodial offenders. She interviewed 50 men who were serving community service orders in South Australia and classified 20% of the sample as problem gamblers using the SOGS. Much of the Australian research has yet to consider gambling within the prison system and its possible influence on inmates in terms of the development of pathological gambling habits. The OARS SA study examined this issue by including survey questions regarding gambling activities during incarceration and their influence on the development of problem gambling among previous inmates of South Australian prisons.

Much research also points to a comorbid relationship between problem gambling behaviour and substance abuse. Marshall (1998) identified a strong relationship between drug use and offending in her sample of 103 South Australian offenders. McCallum and Blaszczynski (2002) also found that the rate of substance abuse disorder within a sample of treatment-seeking pathological gamblers was higher compared to general population figures even though their participant sample did not focus specifically on offenders. Petry, Stinson, and Grant (2005) identified that 73.2% of pathological gamblers had a comorbid alcohol abuse disorder and a further 38.1% had a drug use disorder. There remains a variety of opinions among treatment professionals and researchers regarding the way in which problem gambling behaviour should

be understood but the high levels of comorbidity between problem gambling and other addictive behaviours suggest that it would be worthwhile to explore this relationship further.

Previous South Australian studies (e.g. Meredith, 2001) have also raised questions about trends regarding supposed differences in gambling patterns between men and women involved with the Justice System. In the past, it has been suggested that women gambled less often than men and were therefore less likely to succumb to gambling related issues – this belief is now in doubt with increasing numbers of woman reporting problem gambling behaviour. Women interviewed in Abbot and McKenna's (2000) study of 94 female prisoners in three New Zealand institutions reached similar conclusions to the studies reported above. Higher rates of gambling were reported when compared with the general population and gambling behaviour mainly involved poker machines. 22% of the sample was identified as problem gamblers and a quarter of these reported the commission of offences to fund their gambling. Meredith also states that "there is a need for future research involving corrections populations to focus on the gambling habits of women in recognition of this trend" (p.56). In the present study we included female clients of OARS SA as part of the random sample in order to examine this issue directly for the first time in South Australia.

The preceding literature review shows the importance of undertaking further research to attempt to clarify some of the factors involved in the experience of problem gambling. The key issues highlighted have been the relationship between gambling behaviour and criminal activity, the effect of incarceration on gambling behaviour, gender differences amongst problem gamblers and the comorbidity associated with substance abuse. The method required should ideally be a combination of quantitative and qualitative data collection within a cohort of likely offenders. As such OARS SA is an ideal organisation within which to conduct such research.

Research Design & Method

Design

The research objectives were:

1. Explore the nature of the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and criminal activity in clients of OARS SA.
2. Explore the nature of the relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and other addictive behaviours such as alcohol/illicit drug use in clients of OARS SA.
3. Explore the differences between female and male clients of OARS SA regarding their criminal activity, problem gambling and other addictive behaviour.

A number of secondary points of interests were derived from these broader objectives. These included:

- Does problem gambling contributes to and/or fund criminal behaviour or vice versa?
- Do drugs enhance the gambling experience?
- If so, which drugs are the most commonly used?
- What forms of gambling most engage OARS SA clients?
- Do particular offences characterise gambling related offending?
- Is gambling activity is common in the prison environment?

The nature and extent of the gambling behaviour of OARS SA clients in terms of the CPGI was of particular interest. The research also hoped to relate gambling and criminal behaviour to a demographic profile and to contextualize it with any familial gambling history.

Method

Andrew Paterson, Principal Consultant with Empower Justice Services P/L was appointed to design and conduct the research. It was decided to administer a questionnaire incorporating the CPGI. At the outset it was decided to adopt a face to face or telephone interview protocol with the researcher conducting the bulk of the interviews to ensure a consistent approach. One of the main factors influencing the decision making process was that OARS SA staff reported high levels of illiteracy amongst its clients.

Questionnaire

The research instrument was created after close consultation with OARS SA staff and the Office of Crime Statistics and Research who had agreed to process the data obtained. It consisted of a questionnaire administered by the researcher comprising 26 questions (Appendix A) followed by the CPGI (Appendix B) which contains 9 questions requiring responses ranging from “never” to “always” or “don’t know/can’t remember”. The CPGI was selected as it is recognised as the preferred screening instrument for problem gambling in Australia and has been used extensively throughout the recent literature and prevalence studies. Some benefits of the CPGI over previous screens (e.g. the SOGS) are that it has fewer questions, a broader focus and a sounder theoretical basis with better psychometric characteristics (see for example Jackson et al 2009).

Interestingly the researcher noted that the CPGI questions prefixed with “In the last twelve months have you….” meant that individuals recently released from prison who had served a sentence of twelve months or longer, gave answers that may not accurately represent the severity of their gambling problems. The numbers of such interviewees was small, probably less than 5% of the total sample. In these cases the researcher made a note on the interview form.

The questionnaire also established the type of the interviewee’s last sentencing option as well as demographic data including gender, marital status, number, age and gender of children and educational level when leaving school. Family history including parental details, siblings, level of contact with family and previous gambling issues in the interviewee’s family were also sought.

Detailed questions about individual drug use were also included in the questions asked.

Recruitment

Participants were initially recruited through OARS SA staff who referred them to the researcher. When such referrals decreased due to work pressures on OARS SA staff and the Christmas/New Year holiday season, the collection strategy was altered accordingly and the researcher remained onsite by occupying an OARS SA office and recruiting participants currently attending OARS SA services. OARS SA staff asked if such clients were interested in participating in the study in exchange for a food voucher. None of the clients approached refused to be interviewed. This strategy also ensured that a more "random" sample of interviewees was obtained as the researcher noted in the early stages of the project that OARS SA staff were tending to refer known gamblers for interviews. Clients of OARS SA from all regional locations were interviewed in order to ensure a representative sample of urban and country residents. Questionnaires were administered at Mt Gambier, Pt Augusta, Berri, Port Lincoln and Murray Bridge as well as locations in Adelaide and several metropolitan suburbs.

It is also important to note that interviews were conducted with clients attending the full range of OARS SA services.[1]

Administration

Interviews generally took between 5-10 minutes to complete. The questionnaire was administered in person where possible and by telephone when more convenient for the interviewee. A $20 voucher was given to the interviewee at the conclusion of each interview or posted on the same day.

Ethical considerations

[1] These services included Emergency Financial Assistance, Financial Counseling, Drug and alcohol counseling, Post release support services, Personal Support Program, Youth Support Program, Gambling Support Services, Women's Accommodation Support Services, Men's accommodation Support Service, Freshstart Employment Services.

At the commencement of each interview the researcher made it clear that the process was confidential, that the interviewee could not be personally identified in any way in the subsequent report and that the researcher would treat all information relating to offending behaviour as confidential. OARS SA staff had also expressed concerns in the formative stages of the project about the possible traumatic impact of the interview process on participants which might cause an emotional reaction during the administration of the questionnaire. The researcher noted the concern and reassured staff that his qualifications and experience in trauma counseling would enable him to deal effectively with such an outcome. No such reactions occurred during the interview process.[2]

Results

This section (outlining the key findings of the Questionnaire) incorporates the Office of Crime Statistics and Research report on collected data prepared by Sophie Ransom. This report may be viewed in full in Appendix C. Where appropriate, quantitative data has been supplemented with extracts taken from the qualitative data obtained as part of the interview process. An annotated list of qualitative responses from respondents may be viewed in Appendix D.

Characteristics of respondents

- There were a total of 100 participants in the study with an average age of 37.6 years (Min = 18, Max = 62).
- The majority of participants were male (76%), single (63%), and Australian born (89%).
- The level of education reported is lower than the national average with 59% of respondents finishing education at or before year 10 as compared to 19% in the general population (ABS, 2001).
- 63% of respondents reported regular contact with family, 24% reported limited contact, and 10% reported no contact at all.
- Most respondents had children (63%) but 17% of these reported little or no contact with them. Ages of children ranged from less than one year through to 36 years.

2 On the contrary, many OARS SA clients expressed the view that the interview was helpful and a positive experience. The interviewer monitored carefully respondent reactions during interview and either slowed the pace of questions or took a small break if anxiety was evident.

- 25% of respondents reported a family history of gambling behaviour.

Offending history and incarceration

- The majority of respondents (85%) reported a history of offending.
- The most common type of offence was drug-related (32.9%), followed by violent offences (21.2%), theft (20%), fraud, (17.6%) and robbery (15.3%). Categories are not mutually exclusive as respondents were able to list an unlimited number of different offences
- 59% reported having been in custody in the previous twelve months. Reported periods of time in custody ranged from a few hours to most of the past 12 months.
- 56% reported that they were under legal obligations at the time of the interview. These included: parole (21 respondents); bail (15); home detention (6); bond (3); suspended sentence (1); probation (1) and license disqualification (1).
- Inferential analysis identified that males were significantly more likely to report some form of offending history than females ($x^2 = 12.54$, $p<.001$).

Gambling and offending

The majority of respondents (92%) reported a history of gambling behaviour.

- The most preferred form of gambling was poker machines (87%), followed by horses/TAB (13%), Lotto (8%) and the casino (7%). None of the participants reported engaging in internet gambling.
- 26% reported acts of violence related to their gambling behaviour. Qualitative data indicates that the violence was usually directed at objects not people.
- 29% reported committing criminal acts to support their gambling activities e.g. “I lost money from the business at the Casino and committed armed robbery to get it back” and “I spend it until it’s gone and then go out and do more crime”.
- Of those who had committed a crime to fund gambling activities 77% reported that they had been charged or imprisoned as a result of gambling related offences. Only 30% of

these respondents reported that their gambling behaviour was introduced into court in evidence or as a defence in relation to these offences.

- 35% of those who had served custodial sentences had also gambled in prison with the most common forms being cards (86%) and sport (21%).
- There was no significant relationship between reported family history and current gambling behaviour.
- There were no significant gender differences in gambling behaviour.

Gambling and drug use

The majority of respondents (82%) reported some form of drug use. For the purposes of this study there has been no differentiation between current and historical use. The most preferred types of drugs reported were marijuana (60%) and methamphetamine (60%), followed by alcohol (44%). A further 52% of respondents who gambled reported using drugs while gambling. Of these:

- 83% identified a relationship between their gambling behaviour and their drug use indicating that either gambling had an aggravating effect on drug use or vice versa "definitely, it goes hand in hand, my drug use doubles when I'm in large debt" and "its interesting that when you get off drugs, you get hooked on gambling".
- 26% reported gambling to support a drug habit e.g. "I gambled to get more meth" and "I wanted one big win to buy drugs".
- 32% reported using drugs as a way to cope with stress resulting from gambling activities commenting that "when you gamble, you lose and you need a drink to get over it" and "marijuana made me feel less guilty".

- The qualitative data also showed that some respondents felt that drug addiction actually reduced their problem gambling behavior as "you always need drugs but you can't gamble if you've spent the money…" and "gambling is less important than drugs" and "I kept away from pubs [pokies] when using heroin".
- Inferential analysis identified that males were significantly more likely to report some form of drug use than females ($x^2 = 11.98$, $p<.001$).

Canadian Problem Gambling Index Results

The Canadian Problem Gambling Index (CPGI) was used to assess the level of risk associated with the gambling behaviour of participants dividing respondents into four categories: non problem, low risk, moderate risk and problem gamblers. In interpreting the CPGI outcomes it is worth noting that some 50 respondents had spent time in prison in the period prior to the interview. As the CPGI items refer exclusively to "the last twelve months" it is possible that incarceration may have had some impact on the way in which individuals were able to enact gambling behaviour e.g. by instituting an artificial constraint on the amounts of money the individual was able to have access to. This would be particularly true for those who spent the majority of the previous 12 months in custody. The data remain worthwhile however as it is also possible that gambling activity continued to occur whilst in prison. In presenting the results of analysis related to the CPGI classifications, attention will be drawn to areas in which this issue may influence interpretation of the results as appropriate.

Table 1 shows the proportion of respondents classified into each of the four CPGI groups with comparative data from the South Australian general population (Gambling Prevalence in South Australia: Department for Families and Communities, 2005).

Table 1.

CPGI Outcomes for Participants and the South Australian General Population

CPGI classification	Respondents (%)	N	SA general population (%)
Non-problem gambler	31.5	29	
Low risk gambler	7.6	7	
Moderate risk gambler	17.4	16	1.2
Problem gambler	43.5	40	0.4
Total	100	92	1.6

As may be seen in Table 1, 17.4% of respondents were classified at moderate risk, and 43.5% were classified as problem gamblers giving a cumulative percentage of 70% of respondents falling into the greater risk categories of the CPGI. The Gambling Prevalence in South Australia Study (DFC, 2005) identified 1.2% of their general population sample as classified at moderate risk with a further 0.4% classified as problem using the same CPGI criteria. This gives a cumulative percentage of 1.6% of the general population falling into the greater risk categories which is a significant finding as it indicates that offenders are considerably more likely to be at moderate risk or problem gamblers than those within the general population.

Interestingly, as may be seen in Table 2, there were no significant differences between genders in the proportion of individuals classified within the CPGI categories.

Table 2.

CPGI Outcomes for Male and Female Participants

CPGI classification	Male (%)	Female (%)
Non-problem gambler	31	35
Low risk gambler	8	5
Moderate risk gambler	18	15
Problem gambler	43	45
Total	100	100

CPGI and offending

Table 3 shows the proportion of respondents to report ever having committed a crime to fund gambling activities by their CPGI classification.

Table 3.

Percentage of Respondents who Reported Committing a Crime to Fund Gambling Activities by CPGI Classification

				Crime committed (%)	
	N		N	Individual	Collapsed
Less risk	36	Non-problem gambler	29	6.9	5.6**
		Low risk gambler	7	0	
Greater risk	56	Moderate risk gambler	16	25	42.9**
		Problem gambler	40	50	

* indicates significant difference between groups, Fisher's Exact Test, p<.05
** indicates significant difference between groups, Fisher's Exact Test, p<.001

As may be seen in Table 3, no low risk gamblers reported ever having committed a crime to fund gambling activities compared to 25% of moderate risk gamblers and 50% of problem gamblers. Interestingly, a low proportion (6.9%) of non-problem gamblers also reported having committed offences related to gambling activities. This finding may seem to contradict the otherwise consistent relationship between increased gambling risk and increased report of crime committed but the twelve month scope of the CPGI classifications may be a factor here. As the CPGI refers exclusively to "the last twelve months", individuals can be classified as non-problem gamblers because they have not gambled within the last 12 months regardless of what their gambling behaviour has been like in the past. It is suggested that those non-problem gambler individuals who have reported committing crimes in order to fund gambling activities committed those offences in the past when their gambling behaviour may have been more severe.

In order to effectively analyse these differences, the four classifications produced by the CPGI were collapsed into two broader categories: the "less risk" category comprised of the non-problem and low risk gamblers and the "greater risk" category comprised of the moderate risk and problem gamblers. Table 2 shows that 5.6% of the less risk group reported committing crime compared to 42.9% of the greater risk group. Statistical analysis showed that this difference was strongly significant (Fisher's Exact Test, $p<0.001$) which indicates quite clearly that in this research high risk gamblers had a higher risk of committing a crime to fund gambling activities than low risk gamblers.

CPGI and Drug use

Respondents were compared on responses to questions related to the relationship between drug use and gambling behaviour. Table 4 shows the percentage of participants in each of the four CPGI identified groups who answered positively to the questions relating to drugs and gambling. A general trend may be observed here which indicates that the higher the person's classification on the CPGI (e.g. the greater the impact of their problem gambling behaviour) the more likely they were to report a link between drug use and gambling.

Table 4.

Percentage of Positive Respondents for Drug/Gambling Questions in Each CPGI Group

	CPGI groups			
	Non-problem gambler *N*=29 (%)	Low risk gambler *N*=7 (%)	Moderate risk gambler *N*=16 (%)	Problem gambler *N*=40 (%)
Used drugs while gambling	34.5	42.9	43.8	70
Aggravating relationship	31.0	42.9	31.3	57.5
Gambled to support drug habit	3.4	14.3	25.0	45.0
Used drugs for gambling-related stress	10.3	14.3	43.8	47.5

In order to investigate this further, respondents were again merged into the collapsed CPGI groups 'less risk' and 'greater risk'. Table 5 shows the same statistics as applied to these groups. Due to some missing data, the analysis was carried out only for respondents who reported that they had both gambled and used drugs. As not all respondents answered each question, the number of respondents varies slightly as seen below.

Table 5.

Percentage of Positive Respondents for Drug/Gambling Questions in Collapsed CPGI Groups

	Collapsed groups	
	Less risk	Greater risk
	(%)	(%)
Used drugs while	*N*=30	*N*=46
gambling	43.3^	73.9^
Aggravating	*N*=25	*N*=38
relationship	52.0	71.1
Gambled to support	*N*=31	*N*=45
drug habit	**6.5****	**46.7****
Used drugs for	*N*=31	*N*=46
gambling-related	**12.9***	**50.0***
stress		

^ indicates significant difference between groups, Chi-square, p<.05
*indicates significant difference between groups, Fisher's Exact Test, p<.05
** indicates significant difference between groups, Fisher's Exact Test, p<.001

It is clear that the same trend of greater risk being associated with greater likelihood of reported drug use is also apparent within the collapsed groups. Inferential analysis showed that differences between groups were significant in every case except of self-reported aggravating relationship between drug use and gambling behaviour. Outcomes were that respondents within the greater risk group were significantly more likely to report that they had used drugs while gambling (x^2= 7.20, *p*<.05), had gambled to support a drug habit (Fisher's exact, p<.05) and had used drugs to deal with the stress resulting from gambling activities (Fisher's exact, p<.001).

Discussion

Previous research has shown an inflated prevalence of problem gambling behaviour amongst offenders when compared with the general population. This report supports these findings and identifies significant problem gambling activities among the OARS SA cohort interviewed by the researcher which differed considerably from that reported for the general population. The percentage of problem gamblers identified (43.5%) is somewhat higher than those reported in previous literature but on the whole supports previous findings e.g. 35% identified by Marshall (1998) and 34% identified by Lahn and Grabovsky (2004).

Additionally, the report shows a clear and consistent relationship between problem gambling and criminal activity. Approximately one third of respondents as a whole reported committing a crime to fund gambling activity. When investigated further it was seen that half of those identified as problem gamblers reported committing crime to fund gambling activity. Although the results gathered cannot suggest a directional, causal relationship, the quantitative data taken in conjunction with the qualitative responses presented, clearly shows a connection between problem gambling behaviour and criminal activity and suggests that the likelihood of criminal behaviour increases as does the severity of problem gambling behaviour. This finding supports and expands on those previously reported in the literature e.g. the 11% participants who reported gambling problems as a contributing factor in Boreham et al. (1996, cited in Delfabbro, 2008). The percentage of problem gamblers identified in this study who reported committing crimes in order to fund gambling behaviour suggests that, while the scope of this research cannot definitively state that problem gambling is a causal factor in offending, some participants clearly identify it as a contributing factor. Accordingly, problem gambling needs to be acknowledged as a behaviour which places potential offenders at risk.

This research also identified a need to raise the profile of problem gambling as a contributing factor of criminal behavior within the Justice system, particularly in Courts and Correctional Services. Many participants who reported serving sentences for offences related to their gambling behaviour stated that their problem gambling was not introduced into their defence – either at the discretion of their representation or because of their own reluctance to report it. This report suggests that therapeutic or diversional approaches specifically addressing problem

gamblers should be considered. Further research into the relationship between early offending and problem gambling may be an area for fruitful exploration in future. It is suggested that exploring similar questions with offenders at the early stages of their offending and incarceration may cast more light on the problems surrounding co-morbidity in its early stages. Indeed it would be interesting to compare outcomes for 'emerging' and 'established' groups of problem gamblers and offenders.

The results indicate that almost half of the problem gamblers identified within the study reported gambling in order to support a drug habit. The majority of problem gamblers who reported drug use concurrent with gambling behaviour were able to identify that their drug use made their gambling worse. They also identified using drugs in order to cope with the stress resulting from their problem gambling. This qualitative data shows a cyclical relationship between problem gambling and drug use. It is unclear whether these individuals first encountered drug use or gambling but it seems that once these two behaviours are combined they serve to aggravate and reinforce each other. Also worth noting is the fact that more than two-thirds of problem gamblers reported using drugs while gambling. Further research focused upon quantitative outcomes will be useful but should be informed by further qualitative exploration which will help embed these statistics within a contextual framework of actual lived experience.

The study results further suggest that the most favoured forms of substance use reported are marijuana and methamphetamine use. Further, the qualitative responses indicate that the relationship between methamphetamine use and gambling behaviour is quite strong. Responses clearly show that methamphetamine use is perceived as increasing the pleasure of engaging in gambling behaviour and, conversely, decreasing the pain and struggle associated with the negative outcomes of problem gambling (e.g. financial distress and family strain). It is suggested that future research into the relationship between problem gambling and methamphetamine would be beneficial to service providers and policy makers in the context of both gambling and substance use services. A greater understanding of these comorbidities would also allow for more effective screening of offenders in the sense that having flagged one problematic behaviour (e.g. problem gambling) service providers would then have some basis to explore likely comorbid areas (e.g. substance abuse) which may not otherwise have been reported and may complicate treatment attempts and rehabilitation.

This report shows that although there were some differences in reported offending and drug use behaviour there were no significant differences between genders on proportion of people classified in categories of the CPGI or in general gambling behaviour. One of the areas in which there was some difference identified was in the relationship between drug use and gambling behaviour where it was seen that female participants were half as likely to report gambling to support a drug habit than males. These findings reflect those reported by Meredith (2001) and add support to the notion that gambling behaviour may be more of a significant issue for female offenders than has been considered in the past and as such warrants further research and investigation.

In commenting on this study's design and execution, putting aside the obvious problems in identifying such a cohort, it is clear from this research that the sample interviewed was very clear about where gambling "fitted" in their total lives and within any significant period of offending. The interview strategy was effective, with few of those interviewed having difficulty with the process. The sample was random in the sense that it was a large proportion of OARS SA clients seeking assistance for a variety of issues attending or residing at OARS SA facilities and offices in Metropolitan and Rural South Australia. Consistency of interviews was achieved by the researcher conducting most in person or over the telephone. The provision of a food voucher to those interviewed made the sample target of 100 participants relatively easy to achieve.

Conclusions

This research attempted to explore the nature of the relationships between problem gambling, criminal activity and addictive behaviour in clients of OARS SA with an additional interest in exploring gender differences in the aforementioned areas. This report has identified that:

1) There is an identifiable relationship between problem gambling and criminal activity in clients of OARS SA. It seems that the majority of offenders who are also problem gamblers are able to identify the influence of their gambling behaviour on their risk of offending however many found that this was not included as a part of their defence during legal proceedings and/or felt unable to discuss their gambling behaviour with counsel. The most commonly committed offence related to gambling behaviour was fraud, followed by break-and-enter, theft, and robbery.

2) There is an identifiable relationship between problem gambling (as measured by the Canadian Problem Gambling Index) and alcohol/illicit drug use in clients of OARS SA. This relationship seems to be cyclical and is characterized by reinforcement and exacerbation. The most commonly used substances are marijuana and methamphetamines. The great majority of participants who also gamble reported that the drug use serves to enhance the gambling experience.

3) There is less difference between female and male clients of OARS SA regarding their gambling behaviour than can be found in comparing their criminal activity and other addictive behaviour. It seems that the proportions of problem gamblers are comparable across both genders and that poker machines are (by far) the most commonly used method of gambling.

4) A demographic profile of participants shows them to be mostly male, few having progressed beyond year nine/ten in the education system, unmarried with children they had varying degrees of contact with. The vast majority of interviewees were unemployed at the time of interview.

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Appendix A Questionnaire

Interview number:

Name and ID no:

Contact:

Gender: male female

DOB:

Born in Australia? Where?

Marital status:

Offending history:

Family history: (including family gambling activities)

Children? Yes/no

Ages/gender

Highest level of Education reached

The last time you were in custody, what was it for?

Have you been in custody during the last twelve months?

Imprisonment dates:

Did you gamble in prison? Yes/no if so how?

Present legal obligations if any e.g. parole, bail, other

Has gambling ever made you angry enough to cause you to be violent? Yes/No

Preferred form of gambling:

Horses/TAB

Dogs

Lotto

Scratchies

Pokies

Sport

Wagers

Internet

Keno

Other

Drug usage:

Alcohol

Marijuana

Heroin

Amphetamines (speed, whiz)
Prescription Prescribed/unprescribed

Drug usage while gambling yes no

E.g. does amphetamine use enhance the gambling experience have drug related activities made your gambling problem worse or vice versa yes no

Comments:

Have you ever gambled to support a drug habit?

Have you ever used drugs prescription or illicit to deal with stress resulting from gambling activities?

Yes no

Comments:

Period of use:

Have you ever committed property, armed robbery or fraud related offences to fund gambling activities? Yes no

If so, types of offences

Were you charged/ imprisoned as the result of gambling related offences? Yes/no

If such matters went to court was your gambling behaviour introduced in evidence or as a defence?

Yes/no

Appendix B CPGI

1.In the last 12 months, have you bet more than you could really afford to lose, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

2. In the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

3. In the last 12 months, when you gambled, did you go back another day to try to win back the money you lost, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

4. In the last 12 months, have you borrowed money or sold anything to get money to gamble, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]

4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

5. In the last 12 months, have you felt that you might have a problem with gambling, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

6. In the last 12 months, has gambling caused you any health problems, including stress or anxiety, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

7. In the last 12 months, have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

8. In the last 12 months, has your gambling caused any financial problems for you or your household, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

9. In the last 12 months, have you felt guilty about the way you gamble or what happens when you gamble, would you say never, rarely, sometimes, often or always?

(Single response)

1. Never [ ]
2. Rarely [ ]
3. Sometimes [ ]
4. Often [ ]
5. Always [ ]
6. Don't know/ can't remember [ ]
7. Refused [ ]

Calculation of CPGI

Non-Problem, Low Risk, Moderate Risk and Problem Gamblers are defined using the following scores for each of the responses to A1 to A9:

Never	0
Rarely	1
Sometimes	1
Often	2
Always	3
Don't know/can't remember	0
Refused	0

If CPGI is equal to 0, then this is a non-problem gambler.
If the CPGI is between 1 and less than 3, then this is a low risk gambler.
If the CPGI is 3 and less 8, then this is a moderate risk gambler.
If the CPGI is between 8 - 27, then this is a problem gambler.

Appendix C Quantitative Results

Office of Crime Statistics and Research (OCSAR) report on collected data. (Prepared by Sophie Ransom).

Offending and gambling behaviour

As shown in table 2 not all respondents reported ever having offended, or being gamblers. Of the 100 respondents, 15 reported never having offended. Further, 8 respondents reported that they did not gamble. Of the 15 respondents who had never offended, 3 did not gamble. In the following tables, these respondents were excluded if questions about offending and/or gambling were not relevant to them.

Offending history

The males in the study were more likely than the females to report that they had some form of offending history (92.1% for men compared to 62.5% for women[3]).

Reported offending histories varied widely from having unpaid fines only, to extensive criminal histories including violent offences, armed robbery and murder.

Table 2 summarises the reported offending histories of respondents who reported ever having offended. Offences are loosely grouped by type of offence, based on how the offence was described by respondents and recorded by the interviewer. Categories are not mutually exclusive as respondents were able to list an unlimited number of different offences.

The most common types of offence were drug-related offences, which ranged in seriousness from possession to manufacturing and selling. Assault offences, including domestic violence, were the next most common types of offence, followed by theft and similar offences.

[3] $\chi^2 = 12.54$, $p<0.001$

Table 2 Summary of reported offending histories of respondents

Offence group	Number	% of those with offending history
Drug-related offences	28	32.9
Assault/Assault police/Violent offence/Domestic violence	18	21.2
Theft/shoplifting/possess stolen goods	17	20.0
Fraud/deception/false pretences	15	17.6
Robbery/armed robbery	13	15.3
Break and enter/serious criminal trespass	12	14.1
Larceny/illegal use of/from motor vehicle	12	14.1
Drive unregistered/unlicensed/driving offences	11	12.9
Drink/drug driving	8	9.4
Drunk and disorderly/abusive language/reckless behaviour	8	9.4
Property damage	5	5.9
Breach bail/bond/parole	4	4.7
Resist arrest	3	3.5
Murder/attempted murder	2	2.4
Weapon/firearms	2	2.4
Excessive noise	2	2.4
Unpaid fine	2	2.4
Cause death by dangerous driving	1	1.2
Consorting	1	1.2
Refuse name/address	1	1.2
Unspecified offences	2	2.4
Total number of respondents with offending history	***85***	**-**

Respondents were asked what offence they were last in custody for. In addition to the 15 respondents who reported they had never offended, four respondents reported that they had never been in custody. A further 11 respondents did not specify any offences.

Responses are summarised in Table 3 using the same classification system as for Table 2. Again the most common type of offence was drug-related offences, followed by violent offences, break and enter and similar offences, and fraud and similar offences.

Table 3 Summary of offences last in custody for (amongst those who had ever been in custody)

Offence group	Number	% of those who had been in custody
Drug-related offences	14	17.3
Assault/Assault police/Violent offence/Domestic violence	9	11.1
Break and enter/serious criminal trespass	9	11.1
Fraud/deception/false pretences	9	11.1
Larceny/illegal use of/from motor vehicle	8	9.9
Theft/shoplifting/possess stolen goods	7	8.6
Drunk and disorderly/abusive language/reckless behaviour	7	8.6
Drink/drug driving	6	7.4
Drive unregistered/unlicensed/driving offences	5	6.2
Breach bail/bond/parole	4	4.9
Robbery/armed robbery	3	3.7
Unpaid fine	3	3.7
Murder/attempted murder	2	2.5
Weapon/firearms	2	2.5
Property damage	2	2.5
Resist arrest	2	2.5
Unspecified offences	11	13.6
Total respondents who had been in custody	***81***	**-**

Respondents were asked if they had been in custody in the past 12 months and 50 (59% of the 85 respondents with an offending history) reported that they had.

Recording of the amount of time period spent in custody during the past 12 months was inconsistent. This, along with the fact that date of interview was not recorded, prevented systematic analysis of this information. Reported periods of time in custody ranged from a few hours to most of the past 12 months.

Of the 85 respondents with an offending history, 48 (56%) reported that they were under legal obligations at the time of the interview. These included: parole (21 respondents); bail (15); home detention (6); bond (3); suspended sentence (1); probation (1) and licence disqualification (1).

Gambling behaviour

Respondents who had been in custody were asked if they had gambled when in prison and 28 (34% of those who had been in custody) reported that they had. Types of reported gambling included: card games (24 respondents); betting on football and other sports (6); betting on horses (3); darts (1); chess (1); cars (1); and computer games (1).

All 100 respondents were asked if gambling had ever made them angry enough to cause them to be violent, and 26 reported that it had.

All respondents were asked about their preferred form of gambling, and results are shown in Table 4. Eight respondents reported that they did not gamble. Respondents could list more than one form of gambling.

Pokies were by far the most popular form of gambling, followed by horses/TAB and lotto.

Table 4 Preferred forms of gambling

Type of gambling	Number	% of those who gamble
Pokies	80	87.0
Horses/TAB	13	14.1
Lotto	8	8.7
Casino	7	7.6
Cards	5	5.4
Keno	4	4.3
Scratchies	3	3.3
Dogs	3	3.3
Sport	1	1.1
Total respondents who gamble	***92***	***-***

There was no significant difference in the proportion of men and women who reported some form of gambling (94.7% for men and 83.8% for women). Table 5 shows the preferred forms of gambling for men and women in the study. Pokies were the preferred form of gambling for the large majority of both men and women. There were no statistically significant differences between men and women in terms of preferred forms of gambling.

Table 5 Preferred forms of gambling (%) (excluding those who do not gamble)		
Type of gambling	**Male**	**Female**
Pokies	87.5	85.0
Horses/TAB	16.7	5.0
Lotto	8.3	10.0
Casino	9.7	0.0
Cards	5.6	5.0
Keno	5.6	0.0
Scratchies	2.8	5.0
Dogs	4.2	0.0
Sport	1.4	0.0
Total respondents who gamble	***72***	***20***

Note: percentages will not total 100% as respondents were able to select more than one gambling option.
* Indicates significant difference between groups, Chi square, p<0.05
** Indicates significant difference between groups, Chi square, p<0.001

All respondents were asked to complete the 9 items of the Canadian Problem Gambling Index (CPGI) to assess the level of risk associated with their gambling. Responses were scored and are summarised in Table 6. The 8 respondents who had previously reported that they did not gamble were all classified as non-problem gamblers and have been excluded from this and any further analyses involving the CGPI.

CPGI questions relate to gambling behaviours in the past 12 months. The fact that 50 respondents reported having spent some time in custody in the past 12 months may have impacted on CPGI scores, particularly for respondents who spent a large proportion of the past 12 months in custody.

Table 6 Canadian Problem Gambling Index		
Level of gambling	**Number**	**% of those who gamble**
Non-problem gambler	29	31.5
Low risk gambler	7	7.6
Moderate risk gambler	16	17.4
Problem gambler	40	43.5
Total respondents	***92***	***100.0***

There was no relationship between a respondent's CPGI classification and whether or not they reported a family history of gambling. There was also no relationship between CPGI classification and preferred form of gambling.

Table 7 shows that amongst men and women who gambled, there was no difference in the proportions who were classified as non-problem, low risk, moderate risk or problem gamblers according to the Canadian Problem Gambling Index.

Table 7 Level of gambler as classified by the CPGI by sex (%) (excluding respondents who do not gamble)

	Male	Female
	N=72	N=20
Non-problem gambler	30.6	35.0
Low risk gambler	8.3	5.0
Moderate risk gambler	18.1	15.0
Problem gambler	43.1	45.0

* Indicates significant difference between groups, Chi square, p<0.05
** Indicates significant difference between groups, Chi square, p<0.001

Drug use

Respondents were asked about their drug use and results are shown in Table 8. This refers to ever having used a drug as some respondents reported current drug use while some reported previous drug use and these could not be separated in a systematic way.

Eighteen respondents reported that they did not use any drugs.

Males in the study were more likely than females to report some form of drug use (89.5% for men compared to 58.3% for women.[4])

Marijuana and amphetamines were the most common drugs used, followed by alcohol.

Table 8 Reported drug use

Type of drug	Number	% of those who use drugs
Marijuana/cannabis	49	59.8
Amphetamines	49	59.8
Alcohol	36	43.9
Heroin	25	30.5
Prescription drugs	24	29.3
With prescription	*14*	*17.1*
Without prescription	*10*	*12.2*
Cocaine	1	1.2
Ecstasy	1	1.2

[4] $\chi^2 = 11.98$, p=0.001

Total respondents who have used drugs	***82***	***-***

Drugs and gambling

Of respondents who gambled, 48 (52%) reported that they used drugs while gambling. Of these, 40 (83%) reported that either drug-related activities had made their gambling problem worse, or vice versa.

Of respondents who gambled, 24 (26%) said they had gambled to support a drug habit, and 30 (32%) reported that they had used drugs to deal with the stress resulting from gambling activities.

Table 9 shows that there were no differences between men and women who reported gambling in response to the questions about the relationship between drugs and gambling.

Table 9 Responses to drugs and gambling questions by sex (%) (excluding those who do not gamble)

	Male	Female
	N=72	*N=19*
Use drugs while gambling (% yes)	52.8	52.6
	N=60	*N=16*
Drug related activities made gambling problem worse, or vice versa (% yes)	51.7	56.3
	N=70	*N=20*
Have you ever gambled to support a drug habit? (% yes)	30.0	15.0
	N=72	*N=19*
Have you used drugs to deal with stress resulting from gambling activities? (% yes)	31.9	36.8

* Indicates significant difference between groups, Chi square, p<0.05
** Indicates significant difference between groups, Chi square, p<0.001

Table 10 shows responses to questions relating to drugs and gambling, by CPGI classification and shows that the higher respondents' scores on the CPGI, the more likely they were to report a link between dug use and gambling.

Table 10 Responses to drugs and gambling questions by level of gambler as classified by the CPGI (excluding respondents who do not gamble)

	Non-problem gambler	Low risk gambler	Moderate risk gambler	Problem gambler
	N=29	***N=7***	***N=16***	***N=40***
Use drugs while gambling (% yes)	34.5	42.9	43.8	70.0
Drug related activities made gambling problem worse, or vice versa (% yes)	31.0	42.9	31.3	57.5

Have you ever gambled to support a drug habit? (% yes)	3.4	14.3	25.0	45.0
Have you used drugs to deal with stress resulting from gambling activities? (% yes)	10.3	14.3	43.8	47.5

For significance testing, respondents were merged into two CPGI groups; non-problem or low risk gamblers, and moderate risk or problem gamblers. This was done in order to increase cell sizes and enable chi square analyses. Due to some missing data, this analysis was carried out only for respondents who reported that they gambled and that they used drugs. Numbers of respondents varied slightly for each question as some respondents did not answer all questions.

Table 11 shows that respondents classified as moderate risk and problem gamblers were more likely than non-problem and low risk gamblers to report that they used drugs while gambling, that they had gambled to support a drug habit, and that they had used drugs to deal with stress resulting from gambling activities.

Table 11 Responses to drugs and gambling questions by level of gambler (two levels) as classified by the CPGI (excluding respondents who do not gamble and who do not use drugs)

	Non-problem/low risk gambler	Moderate risk/problem gambler
	N=30	*N=46*
Use drugs while gambling (% yes)^	43.3	73.9
	N=25	*N=38*
Drug related activities made gambling problem worse, or vice versa (% yes)	52.0	71.1
	N=31	*N=45*
Have you ever gambled to support a drug habit? (% yes)**	6.5	46.7
	N=31	*N=46*
Have you used drugs to deal with stress resulting from gambling activities? (% yes)*	12.9	50.0

^ indicates significant difference between groups, Chi square, p<0.05
* Indicates significant difference between groups, Fisher's Exact Test, p<0.05
** Indicates significant difference between groups, Fisher's Exact Test, p<0.001

In order to investigate the use of particular drugs while gambling, Table 12 shows reported drug use amongst both men and women who reported using drugs while gambling. However, it must be noted they did not specifically report that they used these drugs while gambling.

Table 12	Reported drug use by sex (%) amongst respondents who reported using drugs while gambling	
Type of drug	**Male**	**Female**
Amphetamines	76.3	70.0
Marijuana/cannabis	68.4	50.0
Alcohol	44.7	20.0
Heroin*	47.4	0.0
Prescription drugs	26.3	20.0
With prescription	*15.8*	*0.0*
Without prescription	*10.5*	*20.0*
Cocaine	2.6	0.0
Ecstasy	2.6	0.0
Total respondents who report using drugs while gambling	***38***	***10***

* Indicates significant difference between groups, Fisher's Exact Test, $p<0.05$

Gambling and offending

Of the 85 respondents who had ever offended, 26 (31%) reported that they had ever committed property, armed robbery or fraud related activities to fund gambling activities. The types of offences reported are listed in Table 13. Respondents were able to report more than one type of offence. One respondent did not specify any type of offence.

The most common offences were fraud related offences, followed by break and enter and similar offences, theft and robbery.

Table 14 shows reported offences committed to fund gambling for men and women separately. Eight women indicated they had committed offences to fund gambling activities, with five committing fraud/deception type offences and three involved in theft offences. In contrast, the men in the study indicated a much wider range of offending types to fund gambling activities.

Table 13	Summary of offences committed to fund gambling activities	
Offence group	**Number**	**% of those who had offended to fund gambling**
Fraud/deception/false pretences	13	50.0
Break and enter/serious criminal trespass	7	26.9
Theft/shoplifting/possess stolen goods	5	19.2

Robbery/armed robbery	5	19.2
Larceny/illegal use of/from motor vehicle	3	11.5
Assault/Assault police/Violent offence/Domestic violence	2	7.7
Breach bail/bond/parole	1	3.8
Drug-related offences	1	3.8
Not specified	1	3.8
Total respondents who had offended to fund gambling activities	***26***	***-***

Table 14 Summary of offences committed to fund gambling activities (%) by sex

Offence group	Male	Female
Fraud/deception/false pretences	44.4	62.5
Break and enter/serious criminal trespass	33.3	0
Theft/shoplifting/possess stolen goods	16.7	37.5
Robbery/armed robbery	27.8	0
Larceny/illegal use of/from motor vehicle	16.7	0
Assault/Assault police/Violent offence/Domestic violence	5.6	0
Breach bail/bond/parole	5.6	0
Drug-related offences	5.6	0
Total respondents who had offended to fund gambling activities	***18***	***8***

Of those who had committed a crime to fund gambling activities, 20 (77%) reported that they had been charged or imprisoned as a result of gambling related offences. Only six of these respondents reported that their gambling behaviour was introduced into court in evidence or as a defence in relation to these offences.

Table 15 shows the proportion of respondents to report ever having committed a crime to fund gambling activities by their CPGI classification. A low proportion of non-problem gamblers reported ever having committed a crime to fund gambling activities, while no low risk gamblers had committed such crime. Moderate risk and problem gamblers where more likely to report having committed crime to find gambling activities (25% and 50% respectively). It is likely that the non-problem gamblers who reported ever committing a crime to fund their gambling activities were former gamblers who had not gambled in the past 12 months.

Table 15	Committed a crime to fund gambling activities by level of gambler as classified by the CPGI (excluding respondents who do not gamble)			
	Non-problem gambler	**Low risk gambler**	**Moderate risk gambler**	**Problem gambler**
	N=29	***N=7***	***N=16***	***N=40***
Committed a crime to fund gambling activities (% yes)	6.9	0.0	25.0	50.0

For significance testing, respondents were again merged into two CPGI groups. Amongst non-problem and low risk gamblers, 5.6% overall reported having ever committed a crime to fund gambling activities, while amongst moderate risk and problem gamblers, 42.9% reported ever having committed such crime. This difference was highly statistically significant (Fisher's Exact Test, $p<0.001$).

Appendix D Qualitative Responses

Comments made by respondents during interviews support the data:

"it made the experience more exciting and made you lose all your money".

"speed made gambling more intense"

"you had a shot and then went to play the pokies for 3 or 4 hours…it was more enjoyable".

"meth made it (gambling on pokies) a bit more fun".

"made pokies more enjoyable"

"I played the pokies every time I was on speed or ecstasy"

"I used meth to heighten it when I played the pokies"

"I would lose my money on the pokies then use drugs"

It was also said that pokies helped deal with (drug) withdrawal:

"I would get locked on to a machine"

"meth made you more alert and more on top of the game"

"definitely, it goes hand in hand, my drug use doubles when I'm in large debt"

"they sort of go together…a blast of speed and then down to the pokies!"

"it's interesting that when you get off drugs, you get hooked on gambling"

"I get loaded up on speed and then go and spend all my money"

"I was on a lot of meth..it was the major reason I gambled…it makes you feel like gambling"

"it makes pokies feel like a party environment and adds to the experience".

"it made the (gambling) experience more fabulous".

"it (meth) makes me more likely to have a go".

"you lose track of time... its more of a buzz when you're high".

"it intensifies the experience, as soon as I had speed I went down to the pokies".

"every time I had a shot of meth I would end up losing hundreds of dollars"

"when using drugs I became more spontaneously busted".

"I have no doubt that amphets are triggers… they make you spend more…especially women!!!".

"that's why I gambled". and "it makes you stay there for hours".

"meth makes it less painful if losing".

"when I was on meth, I stuck my whole pay packet in the pokies".
The above comments should be embedded in the context of/ support of/ reporting of corresponding quantitative data. Might be worthwhile to extract most relevant to support, with the rest in Appendix?

- Gambling to support a drug habit was reported in 29% of interviews, "I gambled to get more meth". And "I wanted one big win to buy drugs".

- The use of drugs to deal with gambling induced stress was commonly reported. (50% of problem gamblers) "I was addicted to pokies and morphine at one stage"

- The commission of criminal offences (29% of respondents) to directly support gambling addiction was far less common than offending relating to drug use although "I lost money from the business at the Casino and committed armed robbery to get it back" was one response. Another "I had to go and recoup after pokie losses (committed break ins to businesses).and I spend it until it's gone and then go out and do more crime". (see table 9)

- Of those who committed criminal offences to fund gambling activities 20 (80%) reported they had been charges and imprisoned as a result of these offences.

- Problem gambling was rarely introduced as a defence in court even when it was clearly related to offending. Six of the twenty respondents who were charged or imprisoned as a result of gambling reported that their gambling was introduced in evidence or as a defence. Many with a gambling problem reported the complete lack of treatment in prison. A typical comment: "I didn't tell them I had a gambling habit"