COMMENT
FROM IMPULSIVITY TO ADDICTION: GAMBLING DISORDER AND BEYOND

by Luke Clark, PhD
Psychiatric Times
31 August, 2015

One of the many interesting shifts in DSM-5 was the reclassification of pathological gambling from the impulse control disorders category to substance addictions (“substance-related and addictive disorders”). The shift effectively recognized (the now relabelled) “gambling disorder” as the first behavioural addiction. This is a fascinating construct in psychiatry. The other diagnoses in this category involve the compulsive administration of exogenous drugs. Much of our knowledge of addiction comes from studying the pharmacology of these drugs and their ability to “hijack” reward-oriented behaviour in animal models.

In the case of gambling disorder, there is no exogenous substance; rather, there is excessive engagement in a behaviour in which money is wagered on the uncertain prospect of a larger monetary prize. Even the role of money is unclear in this equation. While money is self-evidently a potent incentive, at a psychological level, it is a complex, learned reinforcer (as distinct from a natural reward, such as food or sex). For at least some gamblers, winning money appears to play a negligible role in maintaining their behaviour.

So what is it about this behaviour that enables gambling to yield a power that is comparable to drugs such as cocaine, heroin and alcohol? And might other behaviours, such as video gaming, food addictions, shopping, and sex, be conceptualized as addictive behaviours in the future?

Recognizing the disordered gambler

The DSM-5 diagnosis of gambling disorder uses a threshold of four of nine symptoms. These symptoms have changed little from the original list in DSM-III, which was based on the diagnostic criteria for substance dependence. The symptoms include classic hallmarks of an addiction syndrome: preoccupation with gambling, gambling with larger amounts over time (akin to tolerance), and agitation when stopping gambling (akin to withdrawal).

The criteria also emphasize the negative consequences of gambling, such as occupational or interpersonal difficulties, borrowing money and lying about gambling. Certainly, financial debt is ubiquitous in individuals with gambling disorder, and in the rare cases that do not involve significant debts, there is usually either some form of bailout from others or bankruptcy.

Gambling disorder is linked to high rates of criminal acts to support gambling, although clinicians should note that criminality was dropped as a specific criterion in DSM-5. Homelessness, physical health burden, and suicidal behaviour are further corollaries that highlight the ultimately catastrophic downward spiral of gambling disorder.

Another feature that does not have an obvious counterpart in drug addiction is loss-chasing: continuing to play or returning to the venue at a later date in an effort to claw back recent debts. Loss-chasing is often regarded as a tipping point at which recreational gambling becomes problematic. In epidemiological datasets, loss-chasing is generally the most endorsed feature. These population studies also illustrate how the harms of gambling are continuously distributed: individuals who do not meet diagnostic criteria can nonetheless experience clear harm from gambling. The prevalence estimates for “at-risk” gambling are in the range of 2% to 7%, with full DSM diagnosis in 0.5% to 1%.

**Neurobiological correlates**

One of the pivotal lines of evidence that shaped the DSM-5 reclassification was the neurobiological overlap between gambling disorder and the substance use disorders. From a neurocognitive perspective, elevated impulsivity is a reliable feature in patients with gambling disorder. This personality trait refers to the tendency for rapid responses and unplanned decisions. It can be measured with either questionnaires or behavioural tasks, and is conceptualized as arising from an imbalance between overactive subcortical reward systems and underactive prefrontal cortical control mechanisms. Similar cognitive markers are apparent in substance use disorders. Impulsivity tends to predate gambling disorder as well as other addictions, with predictive value from early childhood.

Neuroimaging experiments have begun to characterize the underlying neural basis of gambling disorder. Functional MRI studies illustrate changes in brain reward circuitry, centred on the ventral striatum and medial prefrontal cortex. This system is robustly activated in healthy volunteers by winning money and during risky gambling decisions. While these areas are abnormally recruited in persons with gambling disorder (and also in drug addicts), the precise nature of this pathophysiology is proving elusive, with reports of hypoactivity and hyperactivity in equal measure.

Positron emission tomography studies may help untangle these complex findings, by identifying the neurochemical modulators within this circuitry, which may also guide medication development. In persons with substance use disorders, there is a reduction in dopamine D2 receptors in the striatum; problem gamblers show a similar effect, albeit only in those with higher levels of trait impulsivity. Persons who have gambling disorder also show heightened levels of dopamine release. This finding is consistent with a clinical observation that dopamine agonist treatments for Parkinson disease can sometimes induce excessive gambling and other risky reward behaviours.

**Video games and Internet use**

DSM-5 changes to the addictions category “Internet gaming disorder” were also considered, but the scientific research behind this condition was insufficient. Ultimately, it was listed in section III of DSM-5 as a condition for further study. This has triggered a wave of research on the clinical, epidemiological, and neurobiological aspects of excessive video gaming. Prevalence rates are particularly alarming in youths: a US survey of 8- to 18-year-olds reported pathological video gaming in 8%. A recent study in 12 000 teenagers across 11 European countries found problematic Internet use in 4.4%.

We are now seeing progress in refining the clinical phenotype. It is recognized that the Internet is a route of

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8 Studer B, Apergis-Schoute AM, Robbins TW, Clark L. What are the odds? The neural correlates of active choice during gambling. *Front Neurosci*. 2012; 6

9 Clark L, Stokes PR, Wu K, et al. Striatal dopamine D2/D3 receptor binding in pathological gambling is correlated with mood-related impulsivity. *Neuroimage*. 2012; 63


access to a range of different activities (also including gambling and pornography). There is international consensus on nine diagnostic criteria for Internet gaming disorder. The threshold of five of nine symptoms is slightly higher than for gambling and substance addictions.

At a psychological level, video games have much in common with gambling (eg, their unpredictable schedules of reinforcement and their capacity to provide distraction from or a means of coping with life stresses). Although there is emerging neurobiological overlap with gambling disorder and substance use disorders, in terms of cue-induced cravings and impulsivity, challenges remain.

One concern is the gradual pathologization of everyday behaviours. The negative consequences of gambling disorder are irrefutable, primarily with respect to the debts arising from excessive gambling. For excessive gaming (and many other "soft" addictions), the negative consequences can be much harder to quantify and relate to time expenditure, a loss of productivity (eg, as a consequence of late nights), or failure to prioritize real-life responsibilities (eg, education, child care).

**Food addiction**

Obesity is a third area that has seen a recent emergence of credible research within a framework of behavioural addiction. Scientists recognize that obesity is a heterogeneous health problem with multiple determinants. A detailed understanding of the neuroscience of feeding behaviour has laid the foundation for the concept of “food addiction” as a potentially useful description of at least a subtype of obese persons.

Persons with food addiction can potentially benefit from the translation of existing effective treatments for drug addiction, such as medications that target µ-opioid receptors. Food cues recruit the same neuroanatomical and neurochemical systems that are targeted in drug addiction. Exogenous stimulation of these neural hot spots can trigger excessive and binge-like eating beyond satiety. Indeed, binge eating disorder has emerged as the phenotype, with the greater clinical and neurobiological resemblance to an addiction profile. In one study, dopamine release to food cues was enhanced in binge eaters but not in non-binge eaters. This is comparable to the aforementioned effect in problem gamblers.

Preclinical models of sugar-bingeing rodents showed progressive behavioural signs of dependence as well as a range of neuroadaptive changes in the brain that were previously thought to be confined to drugs of abuse. Some of these effects were also seen in experimental models looking at binge-like administration of fatty foods.

As with electronic forms of gambling and video games, we must bear in mind that modern food stuffs are a range of neuroadaptive changes in the brain that were previously thought to be confined to drugs of abuse. An ongoing dispute is whether this putative syndrome is best described in relation to the behaviour (eating addiction) or a particular dietary substance (food addiction).

**Treatment implications**

The DSM-5 reclassification has raised the profile of gambling disorder, which appears to be having a beneficial effect on treatment. Nevertheless, services that are available for disordered gambling, and their degree of integration with other mental health services, vary widely across jurisdictions. This is particularly pronounced in the US, given that state-specific gambling regulation entails state-specific treatment provision for those with problematic gambling.

In general, first-line treatment is cognitive-behavioural therapy (CBT), which aims to identify gambling triggers and provide alternative means of coping with those triggers. In addition, CBT seeks to identify and restructure any faulty cognitive distortions about gambling, such as the tendency to over-interpret winning or losing streaks in play or the significance of gambling near-misses.

The human brain is naturally limited in its grasp of randomness and chance and its ability to reason about low-likelihood events (such as lottery wins); these faulty cognitions are more evident in individuals with gambling disorder. A recent Cochrane review of psychological treatments for gambling disorder concluded that CBT has moderate efficacy; it is also adaptable to group settings and Web-based modes of delivery.

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17 Kenny PJ. Common cellular and molecular mechanisms in obesity and drug addiction. *Nat Rev Neurosci*. 2011; 12


As with other addictions, only a minority of affected individuals actively seek treatment for gambling disorder. Most jurisdictions offer additional forms of support that include telephone helplines and voluntary self-exclusion programmes in which the gambler can request that gambling venues or Web sites refuse him or her future entry or credit.

CBT is also frequently augmented with financial counselling and family therapy. With few large-scale randomized controlled trials, there is no clear evidence for the effectiveness of pharmacological treatments for gambling disorder. There are promising signs of efficacy for opioid receptor antagonists, although the mechanism of action is unclear, and SSRIs and mood stabilizers may be beneficial in individuals with depressive or bipolar comorbidities.22

Conclusions

Behavioural addictions are a nascent construct in psychiatry, and they have been ratified in principle by the inclusion of gambling disorder in the DSM-5 addictions category. Given the lack of accepted biomarkers for addictions, it remains to be seen which conditions will join gambling disorder.

From a clinical perspective, gambling disorder is a debilitating condition that is frequently comorbid with other mental health problems - including substance use, mood and anxiety disorders. Gambling represents a potent means of regulating negative mood states (via distraction or the prospect of an exciting win), but one that confers the inevitability of long-term losses. As such, a diagnosis of gambling disorder is likely to exacerbate comorbid conditions and is highly relevant to their treatment. It is recommended that clinicians across all mental health service screen patients for gambling disorder.

COLORADO PROBLEM GAMBLING PROGRAMME HELPED ONLY ONE GAMBLER IN PAST TWO YEARS, SAYS AUDIT

Administrative and marketing costs accounted for 83% of the budget in 2015.

While more than 9 000 residents of Colorado called a national problem gambling hotline last year, not one person was actually assisted by the state’s own problem gambling programme, says an audit report on two state-funded initiatives. The same report found that fully 83 percent of available funds in the 2015 financial year went to administrative and marketing expenses rather than counselling services run by the programmes.

In addition, only five problem gambling counsellors have obtained national accreditation over the past two years, although 23 counsellors received grants from the state to obtain such certification.

The audit was conducted by the Colorado State Auditor and assessed the performance of the state’s Limited Gaming Impact Programme and the Gambling Addiction Programme, both of which were established to address the impacts of casino gaming and are funded from taxes, fees and fines paid by Colorado casinos.

The Local Gaming Impact Programme was created in 1997 to provide financial assistance to local governments to address the impacts of gaming on their communities such as increased crime, traffic, and the need for social services. In 2014, this programme awarded local governments 40 grants totalling about $4.9 million. The grants were awarded to fund a variety of projects and community services including law enforcement, fire and ambulance services, and human services such as child care, hospice and health care.

The Gambling Addiction Programme was created in 2008 to make funding grants to public and private entities or programmes that provide gambling addiction counselling services, as well as prevention and education projects, and to assist individuals become nationally accredited gambling addiction counsellors. Over the last five years, the Gambling Addiction Programme has received approximately $528 000 in total funding.

In 2014 and 2015, this programme awarded 23 counsellors about $28 000 in grants to pursue accreditation. The programme is administered by the Centre for Governmental Training.

Local Gaming Impact Programme

- The audit found the Department of Local Affairs (DOLA) had awarded $236 000 in grant funding to two applicants that could not demonstrate documented gaming impacts, as required by statute, reimbursed grantees for unallowable expenses and monitored grantees inconsistently. DOLA also awarded about $289 000 to three other applicants that used unsuitable methods to determine their gaming impacts.
- DOLA does not have transparent grant-making processes, with the result that the auditor could not determine the department’s rationale for awarding 40 grants and denying three applications, because this is not communicated or documented.
- DOLA does not have a process to consider grant funding recommendations from its advisory committee, as required by statute. Further, the advisory committee has not complied with Colorado’s open meetings.

Database Syst Rev. 2012; 11
22 Hodgins DC, Stea JN, Grant JE. Gambling disorders. Lancet. 2011; 378
# Recommendations

The Local Gaming Impact Programme should use standard methods to document, measure and report gaming impacts, should consider advisory committee recommendations when awarding grants, and should communicate and document the rationale for grant decisions. DOLA should also improve oversight of grantees, review grant expenditures, and ensure grantee contracts align with statute.

DOLA should work with its Limited Gaming Advisory Committee to comply with the Colorado open meetings law by providing advance public notice, with detailed agenda information, of all meetings involving two or more members of the committee to ensure the meetings are open to the public. A process should also be implemented to ensure complete and accurate minutes of all meetings, including detailed records of all actions, policy discussions and decisions.

## Gambling Addiction Programme

Overall, the audit found that this programme has not operated effectively or in compliance with statutes and legislative intent to address problem gambling in Colorado. Between July 2010 and August 2013, the programme used students provide gambling addiction counselling and did not provide grants to entities with or seeking accredited counsellors, as statute requires.

From September 2013 to June 2015, the programme funded only $650 in counselling services (the main purpose of the programme) and granted over $20 900 to ineligible counsellors. Eighteen of the 23 counsellors who received grants did not get accredited.

Since July 2010, the DHS has used only 36 percent of Gambling Addiction Programme funds for grants. The remaining funds were used for administrative and marketing costs or not used at all.

- Grants not awarded for the purposes intended by the law-makers. Firstly, it was found that from September 2013 to June 2015 the Gambling Addiction Programme did not offer or award any grants to provide gambling addiction counselling to Colorado residents, as required by statute. After this problem was brought to the attention of the Department of Human Services (DHS) in March 2015, it allowed the Centre for Governmental Training to pay a counselor grantee $650 to cover the costs of gambling addiction counselling that had been provided to one individual. No competitive grants were awarded for gambling addiction counselling and no other programme funds were used to provide counselling services during this nearly two-year period. Aside from this payment, during this period the Centre awarded 23 grants totalling about $28 000 to individual counsellors to obtain training or take exams to allow them to qualify for national accreditation as gambling addiction counsellors, but as of June 2015, only five of the 23 counsellors had obtained accreditation. The other 18 counsellors, who received about $22 000 in accreditation grants, did not obtain accreditation. Further, neither DHS nor the Centre tracked whether the 23 counsellors provided gambling counselling to Colorado residents.

The table below summarises the outcomes that the Gambling Addiction Programme produced to meet statutory requirements from 2011 to 2015.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals counselled through this programme</td>
<td>48</td>
<td>29</td>
<td>39</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Counsellors who received national accreditation through the programme</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

- Ineligible individuals received accreditation grants. The Centre’s grant data for 2014 and 2015 showed that 17 of the 23 counsellors who received a total of $20 956 in Gambling Addiction Programme grants (74 percent of the total grant amount awarded) did not meet at least one of the grant eligibility requirements in DHS’s contract with the Centre.

These problems matter, says the audit report, because when the Gambling Addiction Programme is not consistently meeting its statutory purpose, the need for gambling addiction counselling may go unmet. In 2014, the National Council on Problem Gambling published a National Survey of Problem Gambling Services which found that about 95 000 Coloradans, or about 2.4 percent of Colorado’s adult population, had a gambling disorder. Based on the survey’s analysis, Colorado’s percentage of problem gamblers is slightly higher than the national average of 2.2 percent. The National Problem Gambling Helpline, which operates a nationwide call centre for people seeking help for gambling addiction, received about 9 300 calls from Coloradans seeking help in 2014.

When DHS contracts with entities that use counsellors-in-training to provide counselling, the problem gamblers who receive Gambling Addiction Programme services may not receive the treatment they need. When the Programme does not ensure that counsellors who receive accreditation grants meet eligibility requirements for those grants, counsellors may not complete training and accreditation, which is an ineffective use of Programme funds that could be used for grants to eligible counsellors or to provide counselling.

- Overall, the audit found that DHS had not maximized the use of the monies available from Gambling Addiction Programme grants. As shown in the table below, DHS used no more than 31 percent of the...
available funds each year. In addition, the proportion of the available funds spent on grants has declined from 26 percent in 2011 to 3 percent in 2015. Over the same period, the proportion of available funds that DHS has not spent has increased and the year-end account balance has more than doubled.

**Gambling Addiction Programme appropriations, expenditures and account balances**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Account Balance</td>
<td>102 700</td>
<td>112 900</td>
<td>113 700</td>
<td>118 600</td>
<td>169 300</td>
<td>65%</td>
</tr>
<tr>
<td>Plus: Allocations Received</td>
<td>85 200</td>
<td>72 000</td>
<td>67 600</td>
<td>100 000</td>
<td>100 000</td>
<td>17%</td>
</tr>
<tr>
<td>Total funds available</td>
<td>187 900</td>
<td>184 900</td>
<td>181 300</td>
<td>218 600</td>
<td>269 300</td>
<td>43%</td>
</tr>
<tr>
<td>Less: Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DHS Administrative Costs</td>
<td>3 900</td>
<td>3 000</td>
<td>5 800</td>
<td>4 200</td>
<td>4 300</td>
<td>10%</td>
</tr>
<tr>
<td>Contractor Administrative Costs</td>
<td>10 800</td>
<td>10 400</td>
<td>7 400</td>
<td>11 200</td>
<td>25 500</td>
<td>136%</td>
</tr>
<tr>
<td>Contractor Marketing Costs</td>
<td>11 400</td>
<td>1 000</td>
<td>0</td>
<td>7 200</td>
<td>4 900</td>
<td>-52%</td>
</tr>
<tr>
<td>Contractor Administrative and Marketing Costs as a Percent of &quot;Total Funds Available&quot;</td>
<td>12%</td>
<td>6%</td>
<td>4%</td>
<td>8%</td>
<td>11%</td>
<td>-8%</td>
</tr>
<tr>
<td>Program Grants and Services 1</td>
<td>48 900</td>
<td>56 800</td>
<td>49 500</td>
<td>26 700</td>
<td>7 300</td>
<td>-85%</td>
</tr>
<tr>
<td>Program Grants as a Percent of &quot;Total Funds Available&quot;</td>
<td>26%</td>
<td>31%</td>
<td>27%</td>
<td>12%</td>
<td>3%</td>
<td>-88%</td>
</tr>
<tr>
<td>Total expenditures</td>
<td>75 000</td>
<td>71 200</td>
<td>62 700</td>
<td>49 300</td>
<td>42 000</td>
<td>-44%</td>
</tr>
<tr>
<td>Ending Account Balance</td>
<td>112 900</td>
<td>113 700</td>
<td>118 600</td>
<td>169 300</td>
<td>227 300</td>
<td>101%</td>
</tr>
<tr>
<td>Appropriations</td>
<td>151 100</td>
<td>151 000</td>
<td>64 200</td>
<td>70 000</td>
<td>100 000</td>
<td>-34%</td>
</tr>
</tbody>
</table>

1. From July 2010 to August 2013, these funds were used for a grant to the University of Denver to provide training and supervision to counselling students who provided counselling to Colorado residents, and to pay personnel costs for a professor who supervised the students. From September 2013 to June 2015, these funds were primarily used for grants to counsellors to obtain gambling addiction counselling training and seek national accreditation.

- It is unclear that the administrative and marketing costs that DHS pays its contractor are warranted based on the level of services the contractor provides. During 2014 and 2015, the Centre’s combined administrative and marketing costs represented more than one half of the Gambling Addiction Programme’s $91 300 in expenditures, and represented about $600 per month to market the programme and about $1 500 per month for the Centre to process applications and award grants. In 2015, the Centre was paid more than $25 000 to administer only $7 300 in grants.

**Recommendations**

The DHS should ensure that the Gambling Addiction Programme operates effectively and in accordance with statute to help address problem gambling in Colorado by –

1. Ensuring that grants are offered primarily for providing counselling to Colorado residents as well as for pursuing national counsellor accreditation, in accordance with statute. This should include ensuring that grants for gambling addiction counselling services are awarded to entities and/or programmes that have or are seeking nationally accredited counsellors.
2. Revising programme rules to clarify the requirements for counselling grant applicants.
3. Ensuring written agreements are executed with the grantees, programme contracts align with statute, and contracts and agreements include reasonable expectations for the use of grant funds, such as deadlines for completing accreditation.
4. Ensuring any future programme contractors provide written reports that contain specific information, as determined by DHS, to allow for adequate monitoring of the contracts.
5. Training DHS staff on the statutory requirements for the programme, the requirements of the programme contract, and on how to hold future contractors accountable for the contract terms through effective oversight and monitoring.

**FEELING BETTER WITHOUT LOSING: DECREASING DISORDERED GAMBLING AND IMPROVING PEOPLE’S MOODS**

Many researchers have observed an association between disordered gambling and negative mood23. It stands to reason that addressing and reducing gamblers’ disordered behaviours might also improve their mood and outlook on life. This month’s issue of The WAGER reviews a study that compares the effects of two brief interventions for disordered gambling on gamblers’ negative mood24.

The researchers randomly sampled 6 457 college students at a large university on the West Coast of the United States. A total of 139 students met the criteria for inclusion in this study, in that they met criteria for gambling problems, agreed to undergo treatment for gambling problems, and completed the assigned treatment.

The researchers randomly assigned participants to one of three treatment groups: personalized feedback

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Participants in the personalized feedback intervention group attended a single session as treatment. Participants in the cognitive behavioural intervention group attended between either four or six sessions, one session per week.

Both before treatment and after in a six-month follow-up, the researchers measured depression, anxiety, and hostility using the Brief Symptom Inventory (BSI). The researchers summed these scores to create a measure of overall psychological distress. The researchers then used analysis of covariance (ANCOVA) to compare the effects of the interventions on the participants’ combined BSI scores.

**Results**

- The researchers observed a significant difference between change in BSI in the personalized feedback group and the corresponding change in BSI in the control group (see the figure below).
- In the six-month follow-up, personalized feedback participants reported significantly lower BSI scores than control participants. Overall, they reported more improvement in their negative moods over the six months than the control group.
- On the other hand, the cognitive behavioural group did not report more or less improvement in their moods than the control group.

Average BSI scores for the three treatment groups, both before intervention and in the six-month follow-up

![Average BSI scores](image)

**Limitations**

- The sessions for the personalized feedback participants were between 60 and 90 minutes long, while the sessions for the cognitive behavioural participants were 60 minutes long. It is not clear how much of the differences between the groups in terms of effectiveness can be attributable to these differences in “dosage.”
- The data set was limited to a pre-intervention measurement and a six-month follow-up. It is unknown whether the interventions had any lasting effects beyond the six-month scope.
- The recruitment was limited to a college-aged population at a single school. The results may not generalize to other age groups or localities.

**Conclusion**

Previous studies have shown that personalized feedback and cognitive therapy can be used as interventions for lessening the problems created by disordered gambling. It is not surprising that these interventions appear to have benefits beyond just the consequences of gambling by themselves. The Internet is filled with anecdotes and personal testimony of people quitting harmful or even just time-consuming activities (e.g., Candy Crush Saga) and feeling better about themselves and about life afterwards. Although the personalized feedback approach showed benefits when compared to assessment only, the cognitive behavioural therapy did not. However, we should not dismiss CBT as non-effective. It might be that with a longer time frame (measured in years, as opposed to months), comparable dose, or a larger sample size, we may find that both work just as well at helping clients manage their gambling and improve their moods.

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**RESEARCHERS DEVELOP A SCALE TO MEASURE THE ENACTED AND FELT STIGMA OF GAMBLING**

The Victorian Responsible Gambling Foundation has published a report validating a scale developed to

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measure stigma from gambling. The study, Developing and Validating a Scale to Measure the Enacted and Felt Stigma of Gambling, was undertaken by Central Queensland University on behalf of the Foundation and investigated the stigma associated with gambling (negative beliefs about gambling and people who gamble) in the context of both internally experienced and externalised (perceived) stigma.

Australian research has shown that stigma is a major barrier to treatment-seeking\textsuperscript{26} and may impede the accurate measurement of problem gambling prevalence. The objective of this study was to develop a scale that measures stigma related to gambling behaviour that will provide researchers, policymakers, industry bodies and clinicians with a tool that contributes to a growing understanding of the gambling experiences of individuals and the impacts of gambling on communities.

Participants in this study were 1 370 adult Australians who are members of the Australian Health and Social Sciences (AHSS) panel, a group of people who have consented to participate in research by taking part in regular AHSS surveys throughout the year. In this study, participants ranged in age between 19 and 92 years and 50.6\% were female.

In order to undertake the research, two new survey instruments were developed to measure the experienced and perceived stigma associated with gambling at both recreational and problem levels. The researchers reviewed existing measures of stigma associated with other non-gambling behaviours (e.g., alcohol, drug abuse, smoking, eating disorders) to construct items that were conceptually related to gambling behaviour.

The two measures of stigma designed and tested by this study were –

- The Gambling Perceived Stigma Scale, which measures perceived stigma against problem gamblers (or recreational gamblers, if desired)

Respondents were asked to indicate how much they agreed with each of the following statements about how they think people who gamble are generally perceived by others. When thinking about gambling, respondents were asked to exclude lottery tickets, instant scratch tickets or raffles, and to include all other types of gambling such as poker machines, card games, racing, sports betting and casino games.

**Contempt subscale**
1. Most people think [gamblers / problem gamblers] are liars
2. Once they know a person is a [gambler / problem gambler], most people will take his or her opinion less seriously
3. Most people think that [gamblers / problem gamblers] tend to be unreliable
4. Most people think that [gamblers / problem gamblers] are unable to handle responsibility
5. Most people think that [gamblers / problem gamblers] are lazy
6. Most people think that [gamblers / problem gamblers] are greedy
7. Most people believe that [people who gamble / problem gamblers] have no self-control

**Ostracism subscale**
8. Many people would be uncomfortable communicating with a [gambler / problem gambler]
9. Most people think less of a [person who gambles / problem gambler]
10. Most people would not hire a [gambler / problem gambler] to take care of their children
11. Most people would be suspicious of a person if they knew they were a [gambler / problem gambler]
12. Most people would not want to enter into a committed relationship with someone they knew [gambled / had a gambling problem]
13. Many people would avoid a person who [gambles / had a gambling problem]

The table below summarises the base response frequencies for each of the items in the scale. It illustrates the variation response thresholds for the scale items, with some items tapping lower levels of the attitudinal dimension, and others tapping higher levels.

<table>
<thead>
<tr>
<th>Response frequency for each item</th>
<th>Min.</th>
<th>Max.</th>
<th>1st quartile</th>
<th>3rd quartile</th>
<th>M</th>
<th>Med.</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ostracism (problem gambling)</td>
<td>1</td>
<td>4</td>
<td>2.5</td>
<td>3.0</td>
<td>2.77</td>
<td>2.83</td>
<td>.50</td>
</tr>
<tr>
<td>Ostracism (Recreational gambling)</td>
<td>1</td>
<td>4</td>
<td>2.17</td>
<td>2.83</td>
<td>2.44</td>
<td>2.50</td>
<td>.53</td>
</tr>
<tr>
<td>Contempt (problem gambling)</td>
<td>1</td>
<td>4</td>
<td>2.14</td>
<td>2.71</td>
<td>2.44</td>
<td>2.43</td>
<td>.53</td>
</tr>
<tr>
<td>Contempt (Recreational gambling)</td>
<td>1</td>
<td>4</td>
<td>1.86</td>
<td>2.57</td>
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<th>Somewhat agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>Most people think gamblers are liars</td>
<td>.17</td>
<td>.41</td>
<td>.36</td>
<td>.06</td>
</tr>
<tr>
<td>Once they know a person is a gambler, most people will take his or her opinion less seriously</td>
<td>.14</td>
<td>.43</td>
<td>.38</td>
<td>.04</td>
</tr>
<tr>
<td>Most people think that gamblers tend to be unreliable</td>
<td>.11</td>
<td>.32</td>
<td>.49</td>
<td>.08</td>
</tr>
<tr>
<td>Most people think gamblers are unable to handle responsibility</td>
<td>.14</td>
<td>.45</td>
<td>.36</td>
<td>.05</td>
</tr>
<tr>
<td>Most people think gamblers are lazy</td>
<td>.25</td>
<td>.57</td>
<td>.16</td>
<td>.02</td>
</tr>
<tr>
<td>Most people think gamblers are greedy</td>
<td>.21</td>
<td>.54</td>
<td>.22</td>
<td>.03</td>
</tr>
</tbody>
</table>

Most people believe people who gamble have no self control | .08 | .27 | .54 | .12
Many people would be uncomfortable communicating with a gambler | .10 | .52 | .34 | .03
Most people think less of a person that gambles | .06 | .30 | .54 | .10
Most people would not hire a gambler to take care of their children | .08 | .40 | .41 | .11
Most people would be suspicious of a person if they knew they were a gambler | .04 | .27 | .56 | .13
Most people would not want to enter into a committed relationship with someone they knew gambled | .03 | .19 | .52 | .26
Many people would avoid a person who gambles | .06 | .41 | .45 | .09

- The Gambling Experienced Stigma Scale, which measures experiences of stigma associated with one’s own gambling behaviours.

Respondent were asked how much they agreed with each of the following statements concerning their thoughts about their own gambling experiences.

1. I feel the need to hide my gambling from my friends
2. I sometimes have the thought that I’ve screwed up my life by gambling
3. Most people would always suspect that I’d returned to gambling, even if I didn’t gamble anymore
4. People have insulted me because of my gambling
5. I have the thought that I should be ashamed of myself for my gambling
6. People can tell that I am a gambler by the way I look
7. Others think I am not worth the investment of time and resources because I am a gambler
8. I sometimes have the thought that I deserve the bad things that have happened to me in life because I gamble
9. I feel the stress in my life is what causes me to gamble
10. Others view me as morally weak because I am a gambler
11. I avoid situations where another person might have to depend on me
12. I don’t think I can be trusted because I gamble
13. Once they know I’m a gambler, most people will take my opinion less seriously

With regard to the Experienced Stigma scale, it is important to highlight that only a limited proportion of the sample self-identified as regular or recent gamblers and, thus, caution should be used in interpretation of the results. Further development of this scale is recommended and should seek to include a larger population sample or purposeful sampling of people with high levels of consumption of gambling products or who experience problems with gambling.

The results of the study were analysed with internal reliability analysis, factor analysis and multivariate analysis to explore the measurement of perceived and experienced stigma in a community sample, taking into account respondents’ gambling experience and relevant socio-demographic information.

The results supported a model of Perceived Stigma along two dimensions (contempt and ostracism), and a uni-dimensional model of Experienced Stigma. The scales were both shown to have strong psychometric properties and to differentiate well between stigmas associated with recreational and problem gambling behaviours. As such, they are suitable for use in future research, although further validation of the Gambling Experienced Stigma Scale is required.

The useful delineation of experienced and perceived stigma offers a means to approach and address the potential impact of stigma in the lives of those with gambling problems. While it is known that stigma is linked with reduced likelihood of accessing treatment, little is known about how stigma in recreational and problem gambling impacts treatment-seeking differentially. This scale provides the methods and tools to address this issue. In addition the scales provide practitioners, health care workers, treatment providers and policy-makers with tools that may usefully inform awareness and understanding of the stigma both experienced and perceived by those who gamble.

The full study may be downloaded at -

**LEGISLATIVE AMENDMENTS WILL ALLOW VICTORIAN RESPONSIBLE GAMBLING FOUNDATION TO PLAY ADVOCACY ROLE**

In Australia, the Victorian Responsible Gambling Foundation Act of 2011 is to be amended to enhance the role of the Foundation in policy-making and advocacy in addressing gambling-related harm. If the Amendment Bill passes, the Foundation’s expanded role will enable it to consult with government, the gambling industry, health professionals and community groups, and use its knowledge, experience and expertise to advise the state government on relevant policy matters.
Introducing the Amendment Bill this month, Minister for Consumer Affairs, Gaming and Liquor Regulation Jane Garrett said its purposes were –

The Foundation Act is amended so as to give the Victorian Responsible Gambling Foundation an advocacy and policy role. This role will be in addition to its present responsibility for undertaking community education and awareness-raising activities to foster responsible gambling and promote problem gambling help services, and undertaking research to inform best practice in problem gambling treatment and prevention and responsible gambling communication.

The Amendment Bill enables the Foundation to draw on this knowledge, expertise and experience to provide informed advice to the minister on problem gambling in Victoria.

The Bill also amends the Responsible Gambling Foundation Act to allow the Foundation to charge fees on a cost-recovery basis in limited circumstances for some of its education and training services, subject to the approval of the minister.

Secondly, the Bill amends the Casino Control Act of 1991 in relation to interstate exclusion orders and the training requirements for special employees.

In Victoria, the Chief Commissioner of Police may issue a written order to prohibit a person from entering a casino if it is considered necessary in the public interest. The Casino Control Act makes it an offence for a person who is the subject of an exclusion order, including an interstate exclusion order, to enter or remain in the casino. The offence was established as part of a national system of casino exclusions which established a system of reciprocity for exclusions by police commissioners.

Despite that intention, not all interstate exclusion orders are made in the same way and the Amendment Bill removes ambiguity to ensure all interstate exclusion orders are captured regardless of how the exclusion orders are made.

Thirdly, the Bill makes a number of amendments to the Gambling Regulation Act of 2003.

The amendments enable the government of Victoria to ensure that the provision of responsible gaming training incorporates emerging research, industry best practice and changes to regulation of the industry by replacing the current training requirements and approval process with the requirement to complete a training course approved by the minister.

Victoria has a statutory requirement that gaming venue staff complete responsible gaming training. The aim of this training is to provide gaming venue staff with the knowledge and practical skills they need to provide gambling responsibly and to minimise harm to consumers. This will enable staff to assist those who may be having problems with their gambling or gambling at risky levels.

The bill amends the Gambling Regulation Act so as to remedy deficiencies identified by the Victorian auditor-general's office, and provides for regulations to specify who must undertake responsible gaming training, the content of the required training, who is responsible for its delivery and when it must be undertaken.

Finally, the Bill amends the pre-commitment provisions of the Gambling Regulation Act to provide that a person must not disclose information obtained from the pre-commitment system to a court.

In the words of Minister Garrett: “The pre-commitment system will capture the personal details and play history of players who choose to register for pre-commitment. The government understands the concerns about potential misuse of that sensitive information. Even though there is a general duty for all persons to keep pre-commitment information confidential, the law recognises circumstances under which information would need to be released. These amendments will help to maintain the confidentiality of pre-commitment information by prohibiting the disclosure of pre-commitment information other than in accordance with the limited exceptions provided in the Act.”

**AUSTRALIAN STUDY INVESTIGATES WHAT SELF-HELP STRATEGIES ARE IMPLEMENTED FOR GAMBLING PROBLEMS**

A project by Australian researchers from four universities has identified a broad range of strategies and actions utilised by individuals to manage their gambling, including those who have developed gambling problems. Numerous strategies and actions were found to be helpful, and these were commonly used in combination.

The research report concludes that the low rate of professional help-seeking, coupled with the high utilisation of self-help strategies, highlights the importance of accessible and effective self-help resources and programmes. While such resources are readily available for other conditions such as smoking, there are limited self-help options currently available for gambling – and few of these have been evaluated. The research’s findings reinforce the need to develop and evaluate an accessible self-help gambling programme or kit that is tailored to a person’s stage of change or problem gambling status or severity.

Commissioned by Gambling Research Australia and undertaken by research teams from Monash University,
Background

Even though most people who develop gambling problems do not seek treatment, many recover through their own volition. Historically referred to as natural recovery, there is growing evidence that a gambling problem rarely spontaneously resolves itself; rather resources, strategies and actions are employed. Self-help is the most widely used type of help amongst gamblers, and the first choice of gamblers if a problem has developed. Despite this, self-help has largely only been examined as a component of studies investigating help-seeking or recovery from problem gambling, rather than in its own right. As such, previous studies have typically investigated the uptake and effectiveness of a small set of self-help strategies, largely drawn from qualitative interviews with gamblers who are in recovery. These retrospective accounts are important but limited in that they represent a select and often small sub-sample of the gambling population. As such, there is a need to look beyond the literature to document what strategies and actions are promoted by industry and government, as well as the strategies that are endorsed by gamblers themselves.

Building on the existing evidence, this project sought to develop a comprehensive list of self-help strategies and actions from a broad range of sources, as well as examine their uptake and helpfulness within an Australian context. Based on the previous literature, self-help was defined as the resources, strategies and actions people use to control or maintain change to their gambling that they do themselves, without necessarily interacting with other people. Compared to professional help, self-help strategies are characterised by being: (i) non-professionally administered; (ii) largely self-administered; and (iii) under personal control. Importantly, people can engage in self-help alone, as well as sequentially or concurrently with other forms of help, including from family and friends, peer support, mutual aid groups, and professional sources.

Phase 1: Identification of strategies and actions

In Phase 1 of this study, four concurrent studies were undertaken to provide a comprehensive list of self-help strategies and actions.

Study 1: Literature review

A comprehensive literature review was undertaken, which provided evidence for a wide range of cognitive-experiential, behavioural, financial and social self-help strategies. In total, seven strategies were identified (information seeking; self-assessment and monitoring; alternative activities; cash control and financial management; stimulus control; cognitive strategies; and social strategies), with cash control and financial management the most frequently discussed strategy. Fifty-one actions were also identified across these studies. While the literature highlighted that self-help strategies are frequently used by gamblers, there was limited information regarding the relative uptake and helpfulness of self-help strategies and actions across the continuum of change. In a similar vein, while a number of studies identified that some strategies and actions are more frequently used by those with gambling problems (compared to those without), there has been little work comprehensively exploring how the uptake and helpfulness of strategies and actions differs according to whether an individual has a current or past gambling problem, or has never experienced difficulties with their gambling.

Study 2: Audit of self-help strategies promoted by gambling-related websites

Thirty-four websites providing self-help strategies, actions and tools to control or change gambling behaviours were selected. The audit entailed categorising the self-help materials located on the 34 websites into high order groupings. Nine overarching self-help ‘strategies’ were identified (becoming informed about gambling; self-assessment of own gambling; setting limits on gambling; managing finances and gambling spend; reducing opportunities and triggers; changing thoughts and beliefs; monitoring ongoing behaviour and change; utilising social support and resources; and taking up alternatives to gambling), which included 506 actions.

Overall, both the help service and government-funded sites included a wide range of actions within each self-help strategy. Further, the government sites referred frequently to the help service sites, and the latter provided many links to the former. Thus the information available was substantial in breadth and depth. Some industry sites provided similar links, but the individual industry sites focused more closely on responsible gambling, including such actions as not chasing losses or gambling more than is affordable.

Collectively, the help service sites included actions to support all nine self-help strategies. However, not all individual help service sites included actions to support all nine strategies. Utilising social support and resources, managing finances and gambling spend, and becoming informed about gambling were the most common strategies across these sites. The government sites also included actions to support all nine self-help strategies, and each of these strategies tended to be included in a higher proportion of the government sites than was apparent across the help service sites. Actions to support the strategy of becoming informed about gambling were represented on all government websites audited, with the majority of the government sites also including actions to support the other eight self-help strategies. The industry sites included actions to support only seven of the nine self-help strategies. These sites focused most on setting limits on gambling
behaviour, managing finances and gambling spend, and becoming informed about gambling, but the number of actions associated within each of these strategies was significantly less than provided by the other types of sites.

**Study 3: Analysis of problem gambling online discussion forums**

Data were obtained from an Australian website that operated for a period of four years between June 2009 and April 2013. Hosted by the Department of Justice, www.problemgambling.vic.gov.au offered free and anonymous access to a forum for people impacted by problem gambling. Data were extracted from three categories related to self-help and stories of how people limited, managed or abstained from gambling - stories of gambling (307 posts), success stories (69 posts) and stories of change (229 posts). Six hundred and four posts containing 133 615 words of text, ranging in length between 4 and 1 319 words, were analysed using a descriptive content analysis.

These data provided an extremely rich, naturalistic account, of the types of strategies and actions gamblers attempt to limit, stop or manage their gambling problems, with a total of 14 different strategies (source information about gambling; remove or limit access to money; set limits while gambling; manage finances; limit or remove access to gambling; change your thinking; identify and remove triggers; make a commitment to change; be vigilant; source alternative activities; source social support; and explore spirituality) and 63 specific actions reported. The majority of forum posts were related to thinking differently about gambling (e.g., admitting that there is a problem, realising that you cannot win), managing finances (e.g., handing over control of finances or cards to another person), and social support (e.g., disclosing to others, asking for help). Fewer posts reported seeking information and, where it was present, the content related to reading information found in online blogs or forums. In addition, few posts related to faith, prayer or spirituality. It was common for gamblers to report multiple strategies in the same post. When multiple strategies were reported they were often a combination of cash control (either limiting access to money or managing finances differently), thinking differently about gambling and the chances of winning, substituting gambling with another activity or diversion, as well as seeking social support.

**Study 4: Analysis of problem gambling online counselling transcripts**

Eighty-five transcripts were extracted from a dataset of clients (50.6% male, with equal representation of a range of age groups) who had participated in a web-based counselling session for problem gambling between November 2010 and February 2012 on the national Australian service (www.gamblinghelplineline.org.au). Clients were more often involved in non-strategic gambling such as electronic gaming machines (72.9%) than strategic gambling (i.e., wagering or sports betting, 27.1%) and identified most often as Australian (71.8%) and new to counselling (62.4%).

Six broad strategy themes (self-assessment and self-monitoring; cash control and financial management; stimulus control; changing thoughts and beliefs; alternative activities; and social support) were identified, involving a total of 25 actions. The most common self-help strategies discussed by participants involved managing finances and gambling spend, which were mentioned by almost half of the sample. Participants who were considering using these strategies generally had positive expectations, however a number of potential issues with implementation were identified, including feelings of shame and embarrassment, and the perception that some decisions could be overturned too easily. Strategies that involved taking up alternative activities were also frequently discussed. Although a number of participants reported that keeping physically fit and engaging in activities that promoted a sense of happiness or wellbeing were important, a lack of time and motivation could make committing to these strategies difficult. Changing thoughts and beliefs related to gambling involved thinking differently about the chance of winning and realising that over the longer term winning was not likely or a way of making money. Although cash control strategies were frequently discussed, their effectiveness seemed mixed. This strategy appeared to be more effective when friends and family were involved in minding or managing money. Sourcing social support from others was also discussed positively, as were planning and monitoring strategies. However, few participants appeared to have used these strategies, making it difficult to rate their actual effectiveness.

**Summary of self-help strategies and actions described in this review**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information seeking</td>
<td>Get the facts and figures (i.e., odds of winning)</td>
</tr>
<tr>
<td></td>
<td>Seek information about how gambling works</td>
</tr>
<tr>
<td></td>
<td>Learn about addiction and problem gambling</td>
</tr>
<tr>
<td></td>
<td>Read self-help books, forums or message boards</td>
</tr>
<tr>
<td>Self-assessment and monitoring</td>
<td>Complete a self-assessment that may also include feedback</td>
</tr>
<tr>
<td></td>
<td>Keep a record or diary of money spent on gambling</td>
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<tr>
<td></td>
<td>Monitoring for signs that gambling is becoming a problem</td>
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<tr>
<td></td>
<td>Track behaviours against goals</td>
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<tr>
<td>Alternative activities</td>
<td>Identify diversionary or distraction based activities such as keeping busy</td>
</tr>
<tr>
<td>Cash control and financial management</td>
<td>Substitute gambling with new activities such as exercise or relaxation or a new hobby</td>
</tr>
<tr>
<td></td>
<td>Set a limit on gambling expenditure</td>
</tr>
<tr>
<td></td>
<td>Set a limit on time spent gambling</td>
</tr>
<tr>
<td></td>
<td>Set a budget for gambling expenses</td>
</tr>
<tr>
<td></td>
<td>Leave credit cards/cash at home when gambling</td>
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<tr>
<td></td>
<td>Cut up or cancel credit cards</td>
</tr>
<tr>
<td></td>
<td>Use a venue smart card</td>
</tr>
<tr>
<td></td>
<td>Avoid using ATMs to withdraw money</td>
</tr>
<tr>
<td></td>
<td>Engage in other activities in gambling settings such as a meal</td>
</tr>
<tr>
<td></td>
<td>Get a friend to support you in sticking to your limits</td>
</tr>
</tbody>
</table>
### Phase 2: Uptake and Helpfulness of strategies

Self-help strategies identified across Phase 1 studies were collated and reviewed by the research team. Twelve distinct strategy themes were identified:

1. **(i)** become informed about gambling
2. **(ii)** complete a self-assessment of your gambling (self-assessment)
3. **(iii)** set limits on your gambling (setting limits)
4. **(iv)** plan gambling session in advance (planning)
5. **(v)** manage finances and gambling spend (managing finances)
6. **(vi)** reduce gambling opportunities, triggers and urges (reducing opportunity)
7. **(vii)** change thoughts and beliefs (changing thoughts)
8. **(viii)** monitor ongoing behaviour and change (watching yourself)
9. **(ix)** take up alternatives to gambling (alternative activities)
10. **(x)** improve health and wellbeing (health and wellbeing)
11. **(xi)** utilise social support and resources (social support)
12. **(xii)** engage in faith and prayer (faith and prayer).

### Action items identified across Phase 1 studies were categorised under these 12 strategy themes. There was significant repetition of suggested actions across Phase 1 studies, including multiple items with similar intent, and as such, actions were categorised under distinct action statements that captured their common purpose. Action statements were also written in an active and direct form to reflect clear actions gamblers could undertake. In total, 99 self-help actions were identified under the twelve self-help strategies identified across Phase 1 studies.

Building on this work, Phase 2 of the project involved determining the uptake and helpfulness of these self-help strategies and actions across a broad population of gamblers, including those with and without self-reported problems associated with their gambling. It is important to note that the researchers chose to examine "helpfulness" (i.e., the subjective perception that a strategy or action was beneficial, in relation to an individual's goals) as opposed to "effectiveness" (e.g., an objective and quantifiable outcome such as reduction in time or money spent gambling) given the self-report nature of the data. This phase of the project involved two distinct studies, a large national online survey of current and past gamblers and a qualitative study exploring their experiences of using self-help strategies and actions.

### Study 5: Survey of self-help strategies and actions

- **The online survey**

An online survey investigating the helpfulness of self-help strategies and actions amongst a large national sample of 716 current and past gamblers was conducted. Over 700 participants, aged between 19 and 88 (68% male), from across Australia completed the survey, including those who reported that they had never had a problem or concern about their gambling (n=227); those who had a problem with their gambling in the past (n=244); and those that had a current problem (n=245). Importantly, 62.6% of participants who had
ever experienced a problem with their gambling (n=489) reported that they had never accessed face-to-face professional help, highlighting the importance of self-help approaches for many individuals who develop gambling problems.

For those participants with a current and past gambling problem, the three most helpful strategies were “changing thoughts", “self-assessment" and “watching yourself". Similarly, the three most helpful actions for those with a current and past gambling problem (although the order differed) were “accept that gambling needs to change” (from the strategy 'self-assessment' ); “think about how your money could be better spent” (from the strategy 'changing thoughts' ); and “remind yourself of the negative consequences of gambling” (also from the strategy 'changing thoughts' ). The least helpful strategies for participants with current problems were “information", “setting limits” and “faith and prayer", compared to “managing finances”, “social support” and “faith and prayer” for those with past problems.

In contrast, participants who identified as never having a gambling problem reported that the most helpful self-help strategies were “health and wellbeing", “planning" and “setting limits"; while the three least helpful were “faith and prayer", “reducing opportunity" and “social support". The three most helpful actions were different to those reported by participants who had experienced problems with their gambling. In this group, the most helpful action was “eat a healthy balanced diet" (from the strategy ‘health and wellbeing’), followed by “set spending limit for each week or fortnight” (from the strategy ‘planning’) and “remind yourself sometimes people win at gambling but the system is designed for you to lose” (from the strategy ‘changing thoughts’).

There did not appear to be any differences in ratings of helpfulness between current problem and past problem groups for any strategy with the exception of “setting limits”, which was reported to be significantly more helpful by the past problem group, compared to the current and no problem groups. Females rated all strategies as significantly more helpful than males, with the exception of “planning". Younger participants (under 35 years of age) tended to rate all strategies as significantly more helpful than older participants (35 years and over) with the exception of “faith and prayer” where there was no difference. There were no differences in the perceived helpfulness of strategies between groups of participants who had never sought professional help and those who had sought professional help.

- Second (past 30 day) survey

Behaviour change models of addiction and gambling, such as the Trans Theoretical Model (TTM), highlight that people intentionally change their behaviour through a number of distinct stages of change (i.e., pre-contemplation, contemplation, action and maintenance). A key question for the current project was to determine how the number and selection of self-help strategies and actions varied according to a person’s current stage of change. Almost 60% (n=410) of the survey sample completed a second online assessment that explored the uptake of specific strategies and actions over a 30-day period. By categorising the sample by stage of change, the second survey was able to provide a unique insight into how the number and selection of self-help strategies and actions varied by each stage of behaviour change, including money and time spent gambling over the 30-day period.

Participants who completed the second survey identified a broad range of strategies and actions that they used during this period. Overall, the most frequently used strategy was “changing thoughts", which was used by 77.9% of the sample. This was followed by "health and wellbeing" (75.2%), “self-assessment" (72.7%) and “watching yourself" (72.7%). “Remind yourself that you don’t need to gamble” and “remind yourself of the negative consequences of gambling” were the second and third most frequently used actions amongst the overall sample (used by approximately 60%). Overall, the top ten actions included six from the ‘changing thoughts’ strategy.

There were differences between stage of change groups in regard to the overall uptake and number of strategies used. The majority of strategies had the highest uptake amongst the action and contemplation groups, and the lowest amongst the pre-contemplation (or no problem) groups. Similarly, the average number of actions used per strategy was significantly higher amongst the action group, and significantly lower amongst the pre-contemplation and maintenance groups. When strategies were ranked by overall uptake, participants in the earlier stages of change were more likely to use “planning” and “setting limits” strategies, while participants in later stages were more likely to use “changing thoughts”, “health and wellbeing” and "self-assessment".

There was a clear relationship between stage of change and time and money spent gambling over the past 30 days. While there was no change in gambling behaviour evident amongst participants in the no problem or pre-contemplation groups, participants in the contemplation stage reported a significant reduction in days gambled and money spent in the 30 days between completion of the first and second surveys. Similarly, participants in the action stage reported a significant reduction in money spent and a trend towards a reduction in days spent gambling, while participants in the maintenance stage demonstrated trends towards a reduction in days spent gambling and money spent.

**Study 6: Interviews with Gamblers**

The second study in Phase 2 explored the experiences of self-help strategies and actions across a broad sample of gamblers (n=30), using a qualitative design. Participants were selected from the online survey, with a particular focus on self-reported problem gambling status (no problem, current problem or past
problem) and current stage of change. Participants were asked about the kinds of self-help strategies they used; how they found out about them; factors that helped or hindered them in sustaining their use; which were most effective; and how these strategies impacted upon lapse or relapse.

Triggers to using self-help strategies focused most often around financial concerns, from a sense that gambling was out of control, that bills were not being paid, and that savings were being depleted. Triggers also came from family and friends when problem gambling was discovered or from online information that provided a “wake-up call”. At times, a change in life circumstances, such as retirement or buying a house, necessitated a review of finances that stimulated the need for behavioural change. Mental health issues also prompted use of self-help strategies for some participants.

The way the strategies and actions were sourced varied considerably amongst participants, with many explaining that they thought of the actions themselves and that they were “just common sense” once they had decided their gambling needed to change. Other strategies had been suggested by family, friends or counsellors, or had been identified by the participant through using online problem gambling sites, surveys and the list of strategies provided to participants.

Many interviewees used a combination of strategies. The most widely used actions across all strategies were limiting the amount of money in their wallet, setting a gambling budget, not taking bank cards into gambling venues, and avoiding gambling venues. The most effective strategies amongst those interviewed were setting limits; managing finances and gambling spend; reducing triggers and opportunities; utilising social support and resources; taking up alternative activities; and a combination of these strategies. It should be noted that although utilising social support and resources was not specifically named as a “strategy” by many, it was evident from the interviews that such support was integral to many of the actions and strategies undertaken.

Indeed, when considering what supported the effectiveness of using self-help strategies and actions, participants described the support of family and friends. Self-efficacy was a further motivating factor for the uptake of self-help strategies for many. Limiting access to funds encouraged use of money management strategies and for many, this meant renewed focus on saving or investing money. Increased and often renewed family activities also became a strong motivator to maintain change. Factors that hindered use of the various strategies included easy access to funds, proximity of gambling venues, loss of previous social activity at gambling venues, stress and mental health issues, alcohol use, the availability of internet gambling and lack of funds for other activities.

Individual strategies and actions used by participants did not occur in isolation. Many actions were dependent upon each other, and for many, their success relied on combining more than one action. It was clear that for those who were inspired or motivated to change by life events, re-establishing family contacts or engaging in diversionary activities, it was easier to pursue their chosen strategies and actions. In contrast, those who had limited social supports, or who had not previously developed sufficient hobbies or interests, found it more challenging to implement or maintain the use of self-help strategies and actions.

Conclusion

This two-phase mixed-method project (encompassing six distinct studies) is the largest and most ambitious research programme specifically focussed on self-help undertaken in Australia. The findings provide a comprehensive description of self-help strategies and actions that are discussed and promoted for gambling within an Australian context. This research also offers a robust examination of the use and helpfulness of a broad array of self-help strategies and actions across differing gambling populations (i.e., problem gambling status and stage of change), together with a rich exploration of people's experiences in attempting to implement such strategies and actions. In addition, the research involved one of the largest samples of people with a current or past gambling problem. For these people, no strategy or action was identified that effectively dealt with an individual’s gambling problem in isolation. Instead, participants described using a combination of strategies and actions that varied by their gambling situation (e.g., a combination of “changing thoughts”, “health and wellbeing” and “watching yourself” were most frequently used among participants in the action and maintenance groups, compared to “limiting”, “planning” and “managing finances” in the no-problem group). Together, these studies deliver a unique insight into the importance and utility of self-help strategies within the Australian landscape, as well as providing a valuable contribution to the broader self-help literature internationally.

Implications

Building on the existing evidence on the use and effectiveness of self-help strategies for gambling, the findings from the studies conducted in this project raise a number of important implications for the field.

(a) Effectiveness of self-help and promotion of strategies

The project identified a broad range of strategies and actions utilised by individuals to limit or manage their gambling, including those who developed gambling problems. Numerous strategies and actions were found to be helpful, and these were commonly used in combination. However, as noted in the qualitative interviews, participants varied considerably in how they learnt about particular strategies and actions, with many explaining that they thought of the actions themselves and that they were “just common sense”, while for others, strategies and actions had been suggested by family, friends or counsellors, or had been identified by
participants through using online problem gambling sites or surveys. These findings suggest that despite a range of strategies and actions being included on multiple websites (albeit varying in their breadth and depth), there are opportunities to further promote these strategies and their level of helpfulness more broadly. Consistent with this, current websites should be encouraged to promote the most helpful strategies and actions, including those that are most helpful for different groups. Indeed, given the lack of current evidence-based material on industry websites, responsible gambling codes of practice could be revised to include provision to include this valuable information.

(b) Better targeting of strategies to particular populations

While a range of self-help strategies and actions were identified across studies, their uptake and ratings of helpfulness varied according to both participants’ problem gambling and current stage of change statuses. Promotion of a set of universal strategies that does not reflect where an individual may be in terms of their gambling may result in the adoption of strategies and actions that are ineffective and/or difficult to implement. For example, setting limits in a gambling setting (a commonly promoted strategy) was a frequently used strategy among individuals without gambling problems, however those with a current gambling problem rated this strategy as the second least helpful. Indeed, “changing thoughts”, “self-assessment” and “watching yourself” were the most helpful strategies for participants with a past and current gambling problem; whereas “health and wellbeing”, “planning” and “setting limits” were the most helpful for those who reported no problems. Similarly, the most frequently used strategies amongst those in the pre-contemplation group were “limiting” and “health and wellbeing”, while the most frequently used strategy amongst the contemplation group was “self-assessment”. In contrast, “changing thoughts”, “health and wellbeing” and “watching yourself” were the most frequently used strategies amongst participants in both the action and maintenance groups. These findings speak to the importance of targeted information for particular stages and problem gambling states, as failure to implement promoted strategies may adversely affect self-efficacy and hinder recovery.

(c) Addressing implementation challenges

Participants across studies identified numerous challenges in their attempts to successfully implement specific strategies and actions. Such information is critical to ensuring the effective use of particular strategies, and needs to be made more widely available. This should include specific information on implementation challenges and successes on available sources of self-help (such as websites and printed resources from industry and support services).

(d) Increasing knowledge and skills of community members

The biggest barrier to seeking support for problem gambling is stigma, which is consistent with the low ratings of helpfulness for social support in the online survey. Indeed, some participants reported that they felt unable to tell friends for fear of criticism or, if they did disclose their gambling problem, felt humiliated. These findings support previous research in this area, and highlight the importance of stigma-reduction programmes for problem gambling in terms of promoting help-seeking.

Limited knowledge within the community on how to respond to problem gambling is also likely to be a factor in delaying a person seeking support. Issues of poor mental health literacy across the community are common, despite individuals identifying friends and family as the main source of help and support. Health literacy programs, such as Mental Health First Aid, have been found to be effective in improving the ability and confidence of family members and peers to reach out and support people with a range of mental health issues and addictions to seek help, and a similar approach for problem gambling is likely to be beneficial in overcoming some of the barriers identified in the current report.

(e) Development of self-help resources and review of current programs

The low rate of professional help-seeking in the online sample, coupled with the high utilisation of self-help strategies across studies, highlights the importance of accessible and effective self-help resources and programmes. While such resources are readily available for other conditions (e.g., smoking cessation and quit packs), and are often designed to reflect an individual’s stage of change, there are limited self-help options currently available in Australia that have been evaluated. This study’s findings reinforce the need to develop and evaluate an accessible self-help gambling programme or kit that is tailored to a person’s stage of change or problem gambling status or severity.

Beyond self-help resources, the current research could also be used as a basis for review of the range of professional services offered to people attempting to limit or change their gambling. For example, it would be important to investigate the extent to which identified strategies (and their associated helpfulness) align with the current availability of professional services. For example, the strategy of “changing thoughts” may be considered analogous to a cognitive behavioural therapy-like strategy. Given the popularity of this strategy, there may be a need to increase access to gambling-specific CBT programmes (e.g., by providing them across different delivery modes, such as face-to-face, telephone or online). Similarly, the high uptake of financial planning might suggest the need for greater access to financial management/planning services or resources.
While this project adds significantly to the available literature, there are a number of outstanding questions that require further research. Firstly, while some of the strategies tested have a good body of research behind them, at least in terms of their uptake (i.e., limit setting), others such as cognitive strategies have not been extensively researched as a self-help strategy or action (e.g., "remind yourself sometimes people win at gambling but the system is designed for you to lose"). Further research is required to understand how individuals use these strategies in practice, as well as how they change during different stages of recovery.

A second question relates to the helpfulness of specific strategies and actions. While this study identified that some strategies and actions were more helpful than others, helpfulness does not necessarily equate to effectiveness, and further longitudinal work is needed to examine whether actions designated as helpful are effective in changing gambling behaviour. In addition, many of the actions and strategies identified can be used for multiple purposes, and with different goals in mind. Future research could examine the different types of goals that gamblers tend to seek, and identify which strategies are most helpful in achieving these outcomes.

A third question relates to how strategies and actions are combined most effectively. For example, a strategy of changing cognitions may require the use of multiple cognitive actions (e.g., "remind yourself you don’t need to gamble", "think about how much money could be better spent") in order for it to be effective. Alternatively, it may be that a cognitive action is best accompanied by a behavioural strategy (such as limiting access to cash and/or engaging in alternative activities), as well as an action associated with social support. Future research should investigate the optimal number, and type of actions, required for a strategy to be effective, and which combinations are most effective for a person's particular stage of change.

A fourth question relates to the relevance of self-help strategies and actions for prevention. While this project provided a short-term look at what strategies are implemented across the continuum of change for gambling problems, further longitudinal research is needed to determine which strategies are most helpful as preventative actions, before a gambling problem develops.

A fifth question relates to the generalisability of findings to an international audience. Indeed, as the focus of the project was primarily on identifying the uptake and helpfulness of strategies and actions within an Australian context, further work is needed to determine their relevance to populations in different environments and cultures.

The full report may be downloaded at –

ABSTRACTS OF RECENT ARTICLES IN LEADING GAMBLING PERIODICALS

ADDITION

National estimates of Australian gambling prevalence: findings from a dual-frame omnibus survey
(N.A. Dowling et al)

The increase in mobile telephone-only households may be a source of bias for traditional landline gambling prevalence surveys. The aims of this study were to: 1) identify Australian gambling participation and problem gambling prevalence using a dual-frame (50% landline and 50% mobile telephone) computer-assisted telephone interviewing methodology; 2) explore the predictors of sample frame and telephone status; and 3) compare the degree to which sample frame and telephone status moderate the relationships between respondent characteristics and problem gambling.

2,000 adult respondents residing in Australia were interviewed in March and April 2013. The survey measured participation on multiple gambling activities and the Problem Gambling Severity Index (PGSI).

Findings: Estimates were: gambling participation (63.9%), problem gambling (0.4%), moderate-risk gambling (1.9%) and low-risk gambling (3.0%). Relative to the landline frame, the mobile frame was more likely to gamble on horse/racing and greyhound races, casino table games, sporting events, private games and the internet; less likely to gamble on lotteries; and more likely to gamble on five or more activities, display problem gambling and endorse PGSI items. Only casino table gambling and internet gambling independently predicted mobile frame membership. Telephone status (landline frame versus mobile dual users and mobile only users) displayed similar findings. Finally, sample frame and/or telephone status moderated the relationship between gender, relationship status, health and problem gambling.

Conclusion: Given expected future increases in the mobile telephone-only population, best practice in population gambling research should use dual frame sampling methodologies (at least 50% landline and 50% mobile telephone) for telephone interviewing.

Full text available online | NO | Full text available by subscription only | YES

ADDICTIVE BEHAVIORS

Problem gambling and internalising symptoms: A longitudinal analysis of common and specific
Comorbidity between problem gambling and internalising disorders (anxiety and depression) has long been recognised. However, it is not clear how these relationships develop, and what factors can foster resilience to both conditions. The current study draws on longitudinal cohort data to investigate: 1) the cross-sectional and longitudinal relationships between problem gambling and internalising symptoms; 2) whether there are common and/or specific social environmental factors protective against both internalising symptoms and problem gambling in young adulthood; and 3) interactive protective factors (i.e., those that moderate the relationship between problem gambling and internalising symptoms).

Methods: A sample of 2,248 young adults (55% female) completed a survey in 2010 (T1) and 2012 (T2) which assessed problem gambling (measured via two items based on established measures), internalising symptoms, and social environmental protective factors.

Results: A positive cross-sectional relationship between problem gambling and internalising symptoms was found; however, there was no statistically significant longitudinal relationship between the two conditions. Protective factors for internalising symptoms were observed within the domains of the community, family and peer group; however, there were no statistically significant protective factors identified for problem gambling.

Conclusions: These findings demonstrate that the social environmental protective factors for adult internalising symptoms assessed in the present study are poor longitudinal predictors of young adult problem gambling. Given the lack of common protective factors, it may be necessary to focus on separate factors to protect against each condition, if we are to address the comorbidity between problem gambling and internalising symptoms.

Single-session interventions for problem gambling may be as effective as longer treatments: Results of a randomized control trial (Tony Toneatto)

Empirically supported treatments for problem gambling tend to be multimodal, combining cognitive, behaviour and motivational interventions. Since problem gamblers often prefer briefer treatments, it is important that interventions adopt strategies that are optimally effective. In this study, 99 community-recruited problem gamblers (74% male, mean age: 47.5 years) were randomised to one of four treatments: six sessions of cognitive therapy, behaviour therapy, and motivational therapy or a single-session intervention. The sample was followed up for 12 months post-treatment. In both the Intent-to-Treat and Completer statistical analyses, no significant group differences on key gambling variables (i.e., frequency, expenditures, severity) were found. All four treatments showed significant improvement as a result of treatment that endured throughout the follow-up period. These results, although preliminary, suggest that very brief, single-session interventions may be as effective as longer treatments.

COGNITIVE DEVELOPMENT

The rational adolescent: Strategic information processing during decision making revealed by eye tracking (Youngbin Kwak et al)

Adolescence is often viewed as a time of irrational, risky decision-making - despite adolescents’ competence in other cognitive domains. In this study, funded in part by the National Centre for Responsible Gaming, the authors examined the strategies used by 30 adolescents and 47 young adults to resolve complex, multi-outcome economic gambles. Compared to adults, adolescents were more likely to make conservative, loss-minimising choices consistent with economic models. Eye-tracking data showed that prior to decisions, adolescents acquired more information in a more thorough manner; that is, they engaged in a more analytic processing strategy indicative of trade-offs between decision variables. In contrast, young adults’ decisions were more consistent with heuristics that simplified the decision problem, at the expense of analytic precision. Collectively, these results demonstrate a counter-intuitive developmental transition in economic decision making: adolescents’ decisions are more consistent with rational-choice models, while young adults more readily engage task-appropriate heuristics.

INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION


The authors tested the impact of minimal therapist guidance with a workbook designed to aid in reducing or stopping gambling. Randomly assigned participants recruited from the community who met at least two DSM-IV criteria for pathological gambling received a workbook completed with therapist guidance (WB+G) or a workbook (WB only). Both groups met with a research assistant to monitor chapter completion and for data collection at each study visit. The authors examined the proportion of participants reporting any gambling, money spent gambling, and G-SAS scores during treatment, at the end of treatment, and at one-year follow-up. Abstinence rates were higher among those in the WB+G condition, money spent gambling was lower for the WB only group during treatment, and both groups reported fewer G-SAS gambling symptoms at
Assessing the Risks Associated With Online Lottery and Casino Gambling: A Comparative Analysis of Players’ Individual Characteristics and Types of Gambling (Ignacio Redondo)

Previous studies have found that online gambling operates in riskier betting conditions than offline gambling and attracts players with more demographic risk factors for gambling disorders. This study reveals that online lottery/casino players, compared to their offline counterparts, also have more psychographic risk factors such as a higher level of trust in the Internet, which could increase susceptibility to unscrupulous manipulation. By type of gambling, online casino players, as opposed to online lottery players, have a stronger tendency to thriftlessness and a lower degree of sociability, two psychographics that, in interaction with the riskier online betting conditions, could make online casino players particularly vulnerable. These findings suggest that governments’ policy/educational initiatives to prevent gambling disorders should be adapted to the specific levels of risk associated with each type of online gambling and their users’ profiles.

Humanizing Machines: Anthropomorphization of Slot Machines Increases Gambling (P. Riva et al)

Do people gamble more on slot machines if they think that they are playing against human-like minds rather than mathematical algorithms? Research has shown that people have a strong cognitive tendency to imbue human-like mental states to non-human entities (i.e., anthropomorphism). The present research tested whether anthropomorphizing slot machines would increase gambling. Four studies manipulated slot machine anthropomorphization and found that exposing people to an anthropomorphized description of a slot machine increased gambling behaviour and reduced gambling outcomes. Such findings emerged using tasks that focused on gambling behaviour (Studies 1 to 3) as well as in experimental paradigms that included gambling outcomes (Studies 2 to 4). The researchers found that gambling outcomes decreased because participants primed with the anthropomorphized slot machine gambled more (Study 4). Furthermore, they found that high-arousal positive emotions (e.g., feeling excited) played a role in the effect of anthropomorphism on gambling behaviour (Studies 3 and 4). The research indicates that the psychological process of gambling-machine anthropomorphism can be advantageous for the gaming industry; however, this may come at great expense for gamblers’ (and their families’) economic resources and psychological well-being.

A Comparison of the Status, Legal, Economic, and Psychological Characteristics of Types of Adult Male Gamblers (A. Weinstein, L. Dinur Klein and P. N. Dannon)

Gambling behaviour is not a unique behaviour. There are certain differences in behaviour, gambling habits, gambling beliefs and their reflection in psychosocial life. The authors of this study have compared three groups of adult male gamblers – 41 sports gamblers, 36 machine gamblers and 35 poker gamblers - in regard to measures of personal status and legal-social characteristics. They found no difference between groups in terms of the length of gambling behaviour, personal status or age. They found no legal difference between groups in terms of the number of court cases for debt, stealing or family court cases. In terms of economic circumstances, sports gamblers suffered more losses than the other groups. There were higher rates of bankruptcy among sports gamblers compared with machine gamblers. Sports gamblers were more likely to borrow money from the black market compared with the other groups. In terms of mental health, sports and machine gamblers had more suicidal thoughts and gestures than poker gamblers, whereas the rate of suicide attempts was higher in machine gamblers compared with poker players. The results indicated higher vulnerability in sports gamblers in terms of economic problems compared with the other groups, whereas machine gamblers had vulnerability to suicidal thoughts and suicidal attempts compared with poker gamblers.

Gambling, Drinking and Quality of Life: Evidence from Macao and Australia (Jasmine M. Y. Loo et al)

The investigation of the interface between psychological constructs, compulsive consumption of alcohol and pathological gambling is an important avenue for development of future initiatives in social marketing or prevention programmes. This cross-cultural study attempts to bridge the gap in the literature by providing an evaluation of the predictive ability of psychological variables such as gambling urge, gambling-related erroneous cognitions and comorbid alcohol consumption on pathological gambling behaviour and its impact on overall quality of life indicators. Participants consist of 445 Macao and Australian young adults (Mean age = 23 years). Results indicate that probable pathological gamblers as compared with non-gamblers reported significantly lower quality of life in all domains - physical health, psychological well-being, social relationships and environment. Adults who drank more alcohol and have stronger erroneous cognitions evidenced higher
pathological gambling behaviour. The authors’ research model fits both cohorts and, interestingly, erroneous gambling-related cognitions serve as a full mediator for the predictive relationship between gambling urge and pathological gambling in the Macao sample, but serve as a partial mediator in the Australian sample. Targeting erroneous cognitions in future social marketing or preventive campaigns should demonstrate to be an important strategy in reducing the effects of urge to gamble among at-risk individuals. Further implications for the industry, marketing and governmental strategies are discussed.

Gender Differences Among Helpline Callers: Prospective Study of Gambling and Psychosocial Outcomes (H.S. Kim, D.C. Hodgins, M. Bellringer and M. Abbott)
Despite the increasing amount of empirical research on gambling helplines (e.g., characteristics, effectiveness), little is known about gender differences in treatment outcomes following contact. The present research addresses this gap in the literature via secondary analysis of an uncontrolled outcome study of New Zealand’s gambling helpline (N = 150). To this end, this research had three aims; (a) explore gender differences (e.g., demographics, co-morbidities, gambling variables) among helpline callers using psychometrically robust measures, (b) assess whether gender predicts treatment utilization following contact and (c) assess whether systematic gender differences exist on gambling and psychosocial outcomes at 3-, 6- and 12-month follow-ups. The results revealed that at baseline, women compared to men described greater problem severity and shorter problem duration, and were more likely to report electronic gaming machines as their most problematic form of gambling. Women also reported greater distress and lower quality of life. Men, despite less problem severity and distress, were more likely to access treatment following helpline contact. Importantly, both men and women reported significant and equivalent improvements in both gambling and psychosocial outcomes following helpline contact. The improved outcomes remained significant after controlling for treatment attendance. Although different approaches for women may be required by helplines if the goal is to refer callers to treatment, the results suggest that after calling the helpline, women reduced their problematic gambling and improved psychosocial functioning without further treatment.

Reliability, Validity, and Classification Accuracy of the DSM-5 Diagnostic Criteria for Gambling Disorder and Comparison to DSM-IV (Randy Stinchfield, John McCreary, Nigel E. Turner, Susana Jimenez-Murcia, Nancy M. Petry, Jon Grant, John Welte, Heather Chapman and Ken C. Winters)
The DSM-5 was published in 2013 and it included two substantive revisions for gambling disorder (GD). These changes are the reduction in the threshold from five to four criteria and elimination of the illegal activities criterion. The purpose of this study was to twofold: firstly, to assess the reliability, validity and classification accuracy of the DSM-5 diagnostic criteria for GD and, secondly, to compare the DSM-5–DSM-IV on reliability, validity, and classification accuracy, including an examination of the effect of the elimination of the illegal acts criterion on diagnostic accuracy. To compare DSM-5 and DSM-IV, eight datasets from three different countries (Canada, USA, and Spain; total N = 3 247) were used. All datasets were based on similar research methods. Participants were recruited from outpatient gambling treatment services to represent the group with a GD and from the community to represent the group without a GD. All participants were administered a standardised measure of diagnostic criteria. The DSM-5 yielded satisfactory reliability, validity and classification accuracy. In comparing the DSM-5 to the DSM-IV, most comparisons of reliability, validity and classification accuracy showed more similarities than differences. There was evidence of modest improvements in classification accuracy for DSM-5 over DSM-IV, particularly in reduction of false negative errors. This reduction in false negative errors was largely a function of lowering the cut score from five to four and this revision is an improvement over DSM-IV. From a statistical standpoint, eliminating the illegal acts criterion did not make a significant impact on diagnostic accuracy. From a clinical standpoint, illegal acts can still be addressed in the context of the DSM-5 criterion of lying to others.

Testing the Validity of a Cognitive Behavioral Model for Gambling Behavior (Namrata Raylu et al)
Currently, cognitive behavioural therapies appear to be one of the most studied treatments for gambling problems and studies show it is effective in treating gambling problems. However, cognitive behaviour models have not been widely tested using statistical means. Thus, the aim of this study was to test the validity of the pathways postulated in the cognitive behavioural theory of gambling behaviour using structural equation modeling (AMOS 20). Several questionnaires assessing a range of gambling-specific variables (e.g., gambling urges, cognitions and behaviours) and gambling correlates (e.g., psychological states, and coping styles) were distributed to 969 participants from the community. Results showed that negative psychological states (i.e., depression, anxiety and stress) only directly predicted gambling behaviour, whereas gambling urges predicted gambling behaviour directly as well as indirectly via gambling cognitions. Avoidance-coping predicted gambling behaviour only indirectly via gambling cognitions. Negative psychological states were significantly related to gambling cognitions as well as avoidance-coping. In addition, significant gender differences were also found. The results provided confirmation for the validity of the pathways postulated in the cognitive behavioural theory of gambling behaviour. It also highlighted the importance of gender differences in conceptualizing gambling behaviour.
GAMBLING GIANT BET365 SLAMMED FOR MISLEADING AND DECEPTIVE CONDUCT OVER “FREE” BETS

The Australian Federal Court has ruled that bet365’s Australian and UK businesses have engaged in "misleading and deceptive" conduct by offering free bets to new customers without properly explaining the terms of the offer.

The Court found against both the Australian Bet365 company, Hillside (Australia New Media) and its UK sister company Hillside (Shared Services). Bet365 is one of the world’s largest online betting providers.

The court’s ruling was made following proceedings brought by the Australian Competition and Consumer Commission (ACCC), relating to a free bet promotion run for a ten-month period in 2013 and 2014. New customers were told they could net $200 for signing up, but the ACCC argued that this was misleading as the qualifications to the offer were not readily apparent to the users of Bet365’s website when they signed up. These additional conditions “neutralised” the free nature of the offer.

In its court papers, the ACCC said that individuals who took up the offer had to spend hundreds of dollars before being able to withdraw any winnings. It presented evidence to the court that new Bet365 customers had to spend their deposit and bonus amounts three times before they could withdraw any winnings associated with the “free” offer. “As a result, a customer who makes an initial deposit of $200 and receives $200 must then gamble $1200 before being able to withdraw any money. The free bet offer was directed at new customers, which included inexperienced gamblers and young people.”

Federal Court Judge Jonathan Beach agreed with the ACCC's submissions, finding that the actions of the Australian and UK arms of Bet365 ultimately amounted to customers who had never used online betting services before being drawn into a “web of deception”.

“The ACCC has made out its case against Hillside Australia and Hillside UK in relation to the promotion and advertising during the period 18 March 2013 to 13 January 2014 of the "$200 FREE BETS FOR NEW CUSTOMERS” offer. Their relevant conduct was misleading or deceptive or likely to mislead or deceive and also involved the making of false representations. For the reasons already given, new customers who had not previously used such types of services were drawn into this web of deception. But other customers who had used such types of services before may have been similarly enticed,” Judge Beach wrote.

Commenting on the Federal Court’s ruling, ACCC Chairman Rod Sims said: “This judgement makes it clear that companies cannot use the word ‘free’ in offers to consumers where any conditions that seek to neutralise the ‘free’ nature of the offer are not clearly identified. Inducements like free bets run the risk of signing up new and inexperienced gamblers based on a deceptive claim. The free bet offer was directed at new customers, which included inexperienced gamblers and young people. The ACCC will take action where it thinks consumers are being misled, especially in emerging markets where there are potentially vulnerable consumers.”

Judge Beach will determine the penalties for bet365 at a future trial date.

TWELFTH ANNUAL CANADIAN GAMBLING DIGEST PUBLISHED

The Canadian Partnership for Responsible Gambling has published the 12th edition of the Canadian Gambling Digest, an annual report that compiles gambling statistics for each Canadian province. In addition to general gambling data on such issues as industry revenues and venue profiles, the Digest includes sections on gambling participation, problem gambling prevalence and problem gambling assistance.

The statistics reported in the Digest pertain to the 2013/14 financial year (1 April 2013 to 31 March 2014).

A section that follows the quantitative component of the Digest provides an overview of the operation, regulation and management of gambling in each province.

REVENUE DISTRIBUTION

The table below shows the amount of government gaming revenue that was distributed to charity, problem gambling and responsible gaming across Canada in 2013/14. Based on the available data, one can see that Ontario and Québec distributed the most to both problem gambling ($38.7 million and $22 million) and responsible gaming ($13.4 million and $4.8 million). Across Canada, total distributions to charity, problem gambling, and responsible gaming were at least $384.2 million, $82.1 million and $31 million respectively.

In this table problem gambling (health) distributions generally refer to the money that government health ministries and departments distribute to problem gambling initiatives. There may be overlap between categories and figures may be estimates and/or budgeted amounts only. Responsible gaming (industry) distributions refer to the money that the government gaming industry (e.g., Crown corporations) distributes to its own responsible gaming initiatives (e.g., for on-site brochures, self-exclusion programmes, staff training, etc.). Figures may be budgeted amounts and/or estimates only. All figures in the table are rounded off to the nearest thousand.
Distributions to charity, problem gambling, and responsible gaming

The graph below shows the percentage of government gaming revenue that was distributed to problem gambling across the country in 2013/14. Among those provinces where the data are available, one can see that the figure was highest in Nova Scotia (2.9%), followed by Ontario (2%). Across Canada, the average was 1.65%.

The amount of government gaming revenue that was distributed to problem gambling per person 18 years and over across the country in 2013/14 is presented in the graph below. As shown, based on the data available, the figure was highest in Saskatchewan ($5.49), followed by Nova Scotia ($5.16). Across the country, the average was $3.42.

The next figure shows the percentage of problem gambling distributions that were allocated to awareness, research and treatment across Canada in 2013/14. Among the provinces where the data are available, one can see that the distributions were highest for treatment and awareness.
PERCENTAGE OF PROBLEM GAMBLING DISTRIBUTIONS ALLOCATED TO AWARENESS, RESEARCH AND TREATMENT

GAMBLING PARTICIPATION

The table below shows past-year participation in different gambling activities across Canada, based on individual prevalence studies conducted in each province. Because prevalence studies are not conducted annually, the data are based on the most recent studies available. As the table shows, the most common activities engaged in are ticket lotteries, charities, and Scratch/Instant Win. Overall, gambling participation is highest in Nova Scotia and Saskatchewan (87%) and lowest in Quebec (67%). Across Canada, the data suggest that approximately 79% of adult Canadians participate in some form of gambling in a given year.

Gambling participation

<table>
<thead>
<tr>
<th>Activity</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PE</th>
<th>NL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Sample</td>
<td>18+</td>
<td>18+</td>
<td>19+</td>
<td>18+</td>
<td>18+</td>
<td>19+</td>
<td>19+</td>
<td>18+</td>
<td>19+</td>
<td></td>
</tr>
<tr>
<td>Sample Size</td>
<td>3,058</td>
<td>1,054</td>
<td>1,848</td>
<td>6,007</td>
<td>4,035</td>
<td>12,008</td>
<td>2,821</td>
<td>2,500</td>
<td>1,000</td>
<td>4,002</td>
</tr>
</tbody>
</table>

PROBLEM GAMBLING PREVALENCE

The following table shows the problem gambling prevalence data taken from the provincial surveys. Across the country, the average percentage of moderate risk gamblers as determined by the Canadian Problem Gambling Index (CPGI) is 2.6. The average percentage of CPGI problem gamblers is 0.9.

Problem gambling prevalence

<table>
<thead>
<tr>
<th>CPGI Levels (%)</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PE</th>
<th>NL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gamblers</td>
<td>27.5</td>
<td>26.5</td>
<td>13.4</td>
<td>14.4</td>
<td>17.1</td>
<td>33.4</td>
<td>21.6</td>
<td>13.0</td>
<td>18.1</td>
<td>22.8</td>
</tr>
<tr>
<td>Non-problem Gamblers</td>
<td>61.3</td>
<td>71.4</td>
<td>69.9</td>
<td>75.8</td>
<td>61.8</td>
<td>68.7</td>
<td>80.9</td>
<td>79.1</td>
<td>68.7</td>
<td></td>
</tr>
<tr>
<td>Low-risk Gamblers</td>
<td>7.9</td>
<td>9.3</td>
<td>9.6</td>
<td>4.6</td>
<td>2.9</td>
<td>5.7</td>
<td>3.6</td>
<td>1.2</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Moderate Risk Gamblers</td>
<td>2.6</td>
<td>4.3</td>
<td>4.7</td>
<td>1.9</td>
<td>1.4</td>
<td>2.7</td>
<td>1.6</td>
<td>0.7</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Problem Gamblers</td>
<td>0.7</td>
<td>0.9</td>
<td>1.2</td>
<td>1.4</td>
<td>0.6</td>
<td>0.4</td>
<td>0.9</td>
<td>0.9</td>
<td>0.7</td>
<td></td>
</tr>
</tbody>
</table>
PROBLEM GAMBLING ASSISTANCE

The number of phone calls made to provincial problem gambling helplines in 2013/14 is presented in the table below. The table also shows the number of agencies/entities funded by government to deliver problem gambling treatment; the number of designated, full-time equivalent (FTE) problem gambling counsellors there were; and the number of people who sought help from problem gambling counselling services. At least 31 792 helpline calls were made in total across the country overall; there were at least 99 government-funded treatment agencies/entities; 183 FTE problem gambling counsellors; and at least 6 705 counselling clients - who sought help mainly for their own, as opposed to someone else’s, gambling problem.

Helpline calls and counseling

<table>
<thead>
<tr>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PE</th>
<th>NL</th>
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</thead>
<tbody>
<tr>
<td>3,741,230</td>
<td>3,132,288</td>
<td>855,663</td>
<td>978,017</td>
<td>10,855,047</td>
<td>6,633,586</td>
<td>619,439</td>
<td>776,709</td>
<td>116,992</td>
<td>434,783</td>
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</table>

<table>
<thead>
<tr>
<th>Population 18+</th>
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<tbody>
<tr>
<td>3,741,230</td>
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<table>
<thead>
<tr>
<th>Helpline Calls</th>
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<tbody>
<tr>
<td>Own Problem: 3,174</td>
</tr>
<tr>
<td>Other’s Problem: 668</td>
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<tr>
<td>Total Problem: 3,842</td>
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<tr>
<td>Miscellaneous: 499</td>
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<table>
<thead>
<tr>
<th>Total Helpline Calls 2013-14</th>
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<tbody>
<tr>
<td>4,341</td>
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<table>
<thead>
<tr>
<th>% Change</th>
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<tbody>
<tr>
<td>6.6</td>
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<table>
<thead>
<tr>
<th>Government-funded Treatment Agencies/Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Agencies 2013-14: 32</td>
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<table>
<thead>
<tr>
<th>Full-time Equivalent (FTE) Counsellors</th>
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<tbody>
<tr>
<td>Total FTE Counsellors 2013-14: 23</td>
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<thead>
<tr>
<th>% Change</th>
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<tbody>
<tr>
<td>-11.5</td>
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<table>
<thead>
<tr>
<th>Counselling Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Problem: 1,150</td>
</tr>
<tr>
<td>Other’s Problem: 304</td>
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<table>
<thead>
<tr>
<th>Total Clients 2013-14</th>
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<tbody>
<tr>
<td>1,454</td>
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<table>
<thead>
<tr>
<th>% Change</th>
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<tbody>
<tr>
<td>-13.7</td>
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ON-SITE INFORMATION AND SUPPORT AT GAMING VENUES

The number of responsible gambling (RG) information terminals and on-site support centres that were available across the country in 2013/14 is shown in the table below. The table also shows the centres’ operating hours and staffing; the number of people who visited the centres for problem gambling (PG) and RG information; the number of individuals on self-exclusion (SE) lists; and the number of SE breaches detected. In total across the country, there were 122 RG terminals and 110 on-site support centres; 100 full-time equivalent (FTE) staff members; 339 568 PR/RG visitors; 35 821 individuals on SE lists; and 14 938 SE breaches detected.
On-site information and support at gaming venues

FORTHCOMING CONFERENCES

13 – 14 October 2015, Dallas, Texas
NASPL/WLA Responsible Gambling Seminar

Hosted by the North American Association of State and Provincial Lotteries and the World Lottery Association, speakers at this event will include Dr. Alex Blaszczynski, the Director of Gambling Treatment and Research at the University of Sydney, Dr. Jon Kelly of the Responsible Gambling Council in Toronto, Dr. Kahlil Philander, the Director of Social Responsibility at the British Columbia Lottery Corporation. There will be panel discussions on three topics that are part of the WLA Responsible Gambling Framework: retailer training, employee training and player education.

http://www.naspl15.com/rg-seminar/

4 – 5 November 2015, Albany, New York
NYCPG Conference on Problem Gambling

The New York Council on Problem Gambling’s annual conference will bring together researchers, legislators, counsellors and other problem gambling experts from all over the world, to provide diversified training for a variety of professions. The two-day conference experience includes four keynote speeches and six workshop sessions, featuring speakers such as Mark Potenza, Professor of Psychiatry, Child Study and Neurobiology at the Yale University School of Medicine, where he is also Director of the Problem Gambling Clinic and the Center of Excellence in Gambling Research.

http://nyprogambling.org/conference/

25 – 27 November 2015, Adelaide, Australia
National Association for Gambling Studies 25th Annual Conference


WELFARE GROUPS WANT BETTING LIMITS IN ANY NEW TASMANIAN GAMBLING DEALS

Tasmanian welfare organisations want harm minimisation measures including $1 bet limits in any new state pokies or casino deals.

The Tasmanian government is considering a proposal that would extend hotel operator Federal Group’s monopoly on poker machines beyond 2023, in return for allowing the Museum of New and Old Art’s (MONA) proposed high-roller casino to go ahead.

The manager of Anglicare’s Social Action and Research Centre, Meg Webb, said the government should not waste the opportunity: "We can lead the world in fact, when it comes to best practice in terms of gambling in a small state like Tasmania.

"One third of Tasmanians are low-income. We need to understand how we can still ensure people have an opportunity to gamble but that’s done in a way that minimises the harm to a community like Tasmania.

"We know that 90 per cent of Tasmanians think that pokies in particular are a serious social problem in their community."

New legislation would be required to break the 2003 deed between hotel operator Federal Group and the State Government, which prevents any other casinos or poker machine venues to open in the state.

MONA’s owner David Walsh has proposed the casino in order to stem the popular museum’s losses and ensure its future.

ABC News
26 August, 2015

OVERHAUL OF AUSTRALIAN ONLINE GAMBLING REGIME TO BEGIN THIS YEAR

The Australian federal government has announced a review of the country’s online gambling regulatory and tax regime. The review, which must report to the Minister of Social Services and the Minister of Communications by 18 December, will specifically investigate illegal offshore wagering.

On 7 September, Social Services Minister Scott Morrison said the review would investigate methods of strengthening enforcement and ensuring Australians are protected from illegal online wagering operators.

According to the Terms of Reference document, it is estimated that offshore wagering is a $1-billion annual illegal business in Australia. Evidence suggests a significant number of illegitimate offshore operators are targeting Australian customers of racing and sports. Australian-headquartered organisations are attempting to avoid legal obligations by basing their operations in unregulated international regions such as the Pacific and Asia.

"Some State and Territory Governments have legislated to require betting services to be authorised. Additionally, the Interactive Gambling Act of 2001 prohibits online gambling services and exempts wagering in limited and express circumstances. The Act outlines requirements on penalties for breaches, and complaints systems.

"A number of wagering operators are now moving offshore, leading to operators being able to avoid paying the product and other fees that assist with funding racing and sports facilities, integrity measures, prize money and participant payments and other operational costs. Importantly, the off-shoring of operations also prevents regulators from having access to all betting transaction information. By avoiding the proper checks and balances and evading the fees, this arrangement has the potential to undermine the integrity of racing and sports in Australia."

The Review will examine:

1. the economic impacts of illegal offshore wagering and associated financial transactions on legitimate Australian wagering businesses, including size of the illegal industry, growth, organisation and interrelationships with other criminal industries and networks;
2. international regulatory regimes or other measures that could be applied in the Australian context;
3. what other technological and legislative options are available to mitigate the costs of illegal offshore wagering; and
4. the efficacy of approaches to protect the consumer – including warnings, information resources, public information campaigns and any other measures, regulatory or otherwise, that could mitigate the risk of negative social impacts on consumers.

PwC SELECTED TO CONDUCT RESEARCH INTO REMOTE GAMBLING IN UK

The UK’s Responsible Gambling Trust (RGT) has appointed auditors PwC to conduct a research programme into remote gambling behaviour. PwC will conduct a two-phase programme of research to explore the potential of behavioural analytics and industry-held data to indicate and mitigate the potential for gambling-related harm.

This project is intended to build on the research
into customer behaviour on gaming machines in licensed betting offices published in late 2014.

During the first phase, PwC will work with Canada’s Responsible Gambling Council to engage with remote operators in order to understand their existing processes and controls to minimise harm. Phase two of the research programme will analyse industry data and control systems to recommend practical applications of harm minimisation for remote gambling operators serving British consumers.

The RGT began the tender process for this research in March 2015, when it invited proposals from organisations with relevant expertise and experience. PwC was commissioned to complete the research programme, which is expected to take eighteen months to complete.

Marc Etches, the chief executive of the RGT, said: “RGT is committed to commissioning research not only to understand player behaviour but to improve processes in the industry to mitigate gambling-related harm. We have completed an extensive tender process and have emerged with research partners of the highest calibre. Between them PwC and the Responsible Gambling Council have an extensive understanding of the gambling industry and issues of social impact and I am confident that this work will make a valuable contribution to efforts to minimise gambling-related harm in the remote sector.”

NEW SOUTH WALES EXTENDS SELF-EXCLUSION TECHNOLOGY

Gambling venues across New South Wales are to implement an online multi-venue self-exclusion system that will cover 1 472 pub and hotel venues, in addition to the 1 375 clubs already covered by the system.

The technology allows problem gamblers to ban themselves from a choice of more than 2 800 venues across the state simultaneously with the click of a button. Previously, such gamblers were forced to make multiple trips to ban themselves from all the venues in their local area.

The online system also allows problem gamblers to ban themselves from venues at a counsellor’s office, rather than having to attend a venue in person.

ClubsNSW chief executive Anthony Ball said Online Multi-Venue Self-Exclusion was a powerful tool that helps problem gamblers take the vital first step on the road to recovery. He said the club industry had invested more than $1 million in developing the harm-minimisation technology.

“This system has already helped more than 2 800 people in NSW, who have been able to ban themselves from 1 340 club venues. Until now though, those people have not been able to ban themselves from hotels around their home or work at the same time as excluding themselves from clubs.

“For some people, the time, effort and emotional investment needed to make multiple visits is overwhelming or just too difficult to go through with. Online Multi-Venue Self-Exclusion removes that burden.”

Research conducted prior to the development of online Multi-Venue Self-Exclusion technology showed that 90% of people who have self-banned wanted to be able to ban themselves from multiple venues in one go.

An independent assessment by Macquarie University also concluded that self-exclusion services are very valuable in assisting problem gamblers. Findings included –

- 88% of survey participants found the self-exclusion programme to be satisfactory for their needs.
- 76% of surveyed participants found themselves financially better off after participating in the self-exclusion programme.
- 65% cited significant improvement in their personal relationships as a result of participating in the programme.

The Online Multi-Venue Self-Exclusion program was introduced across NSW clubs in 2013, and more than 2 800 counsellors and trained club facilitators are now trained in providing self-exclusions through the online system.

Paper based self-exclusion was introduced by clubs and hotels in NSW in 2000, with an estimated 3 000 people banning themselves from a club or hotel each year. Clubs and hotels are subject to significant financial penalties if they knowingly allow a person to breach their self-exclusion.