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Gambling Harms and Gambling Help-Seeking amongst Indigenous Australians

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Gambling harms and gambling help-seeking amongst Indigenous Australians

Abstract This paper aimed to analyze the harms arising from gambling and gambling-related help-seeking behaviour within a large sample of Indigenous Australians. A self-selected sample of 1,259 Indigenous Australian adults completed a gambling survey at three Indigenous sports and cultural events, in several communities and online. Based on responses to the Problem Gambling Severity Index (PGSI), the proportions of the sample in the moderate risk and problem gambler groups were higher than those for the population of New South Wales. Many in our sample appeared to face higher risks with their gambling and experience severe gambling harms. From PGSI responses, notable harms include financial difficulties and feelings of guilt and regret about gambling. Further harms, including personal, relationship, family, community, legal and housing impacts, were shown to be significantly higher for problem gamblers than for the other PGSI groups. Most problem gamblers relied on family, extended family and friends for financial help or went without due to gambling losses. Nearly half the sample did not think they had a problem with gambling but the results show that the majority (57.7%) faced some risk with their gambling. Of those who sought gambling help, family, extended family, friends and respected community members were consulted, demonstrating the reciprocal obligations underpinning traditional Aboriginal culture. The strength of this finding is that these people are potentially the greatest source of gambling help, but need knowledge and resources to provide that help effectively. Local Aboriginal services were preferred as the main sources of professional help for gambling-related problems.

Keywords

Indigenous Australian, Aboriginal, gambling, harms, impacts, problem gambling

Harms Arising from Gambling and Help-Seeking amongst Indigenous Australians

1 Over the last decade, gambling has attracted increased attention as a public health issue (Hing
2 2010; Reith 2007; Shaffer & Korn 2002). Much of this attention centers on identifying and
3 reducing any harms associated with gambling and improving help-seeking among those in
4 need. International and Australian studies have illuminated the extent of gambling-related
5 harms amongst the general population (Ministry of Health 2009; National Gambling Impact
6 Study Commission 1999; Nova Scotia Health Promotion & Protection 2008; Productivity
7 Commission 2010; Sproston, Hing & Palankay 2012; Wardle, Moody, Spence, Orford,
8 Volberg, Jotangia, Griffiths, Hussey & Dobbie 2011; Williams, Rehm & Stevens 2011b), but
9 have yielded limited information pertaining to Indigenous peoples. Further, several studies
10 have examined gambling help-seeking behavior amongst mainstream populations (Carroll,
11 Davidson, Marsh & Rodgers 2011; Pulford, Bellringer, Abbott, Clarke, Hodgins & Williams,
12 2009), yet little is known about gambling help-seeking by minority groups, particularly
13 Indigenous populations (McMillen, Marshall, Murphy, Lorenzen & Waugh 2004; Moore
14 2008; Rush, Moxam & Urbanoski 2002). These gaps in research reflect a general lack of
15 depth within the scholarly literature on gambling amongst Indigenous populations (Kayseas,
16 Schneider & Goodpipe 2010) due largely to associated methodological limitations (McMillen
17 & Donnelly 2008). Except for New Zealand (Gray 2011), most population prevalence studies
18 have not captured either adequate numbers or representative samples of Indigenous
19 respondents to provide robust data (e.g. Alegría, Petry, Hasin, Liu, Grant & Blanco 2009;
20 Marshall & Wynne 2003; Queensland Government 2010; Smith & Wynne 2002; Young,
21 Barnes, Morris, Abu-Duhou, Tyler, Creed & Stevens 2006). While qualitative studies have
22 provided valuable in-depth insights, they have drawn on small non-representative samples
23 (e.g. Breen, 2012; Breen, Hing & Gordon 2011; Oakes, Currie & Courtney 2004; Tse, Dyll,
24 Clarke, Abbott, Townsend & Kingi 2012) or have been based on stakeholder consultation
25 with no empirical research (e.g. Aboriginal Health & Medical Research Council of NSW
26 [AHMRC] 2007; Cultural & Indigenous Research Centre Australia [CIRCA] 2011).

27 Thus, knowledge about the nature and extent of gambling harms and help-seeking
28 efforts by Indigenous peoples and communities is in its infancy. This is concerning given
29 mounting evidence that Indigenous people tend to be more vulnerable to developing
30 gambling problems than are non-Indigenous people (Belanger 2011; Conner & Taggart 2009;
31 Dyll 2010; McMillen & Donnelly 2008; Momper 2010; Stevens & Young 2009; Wardman,
32 el-Guebaly & Hodgins 2001; Williams, Stevens & Nixon 2011a). For example, one estimate
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1 of the overall rate of problem gambling amongst Indigenous people is between 10% and
2 20%, but the range for different groups is likely to be much wider (Williams et al. 2011a).

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4 This paper reports results from quantitative research with Indigenous Australian
5 people, the majority from the states of New South Wales (NSW) and Queensland (QLD).
6 Specifically, the paper aims to 1) analyze the harms arising from gambling for these
7 Indigenous Australians and 2) examine their preferences and attempts to seek help for any
8 gambling-related problems.
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13 14 Gambling Problems and Harm

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16 Many gamblers unable to control their gambling eventually experience some of the harmful
17 consequences underpinning the Australian definition of problem gambling, that is gambling
18 ‘characterised by difficulties in limiting money and/or time spent on gambling which leads to
19 adverse consequences for the gambler, others, or for the community’ (Neal, Delfabbro &
20 O’Neil 2005, p. i). However gambling behaviours and adverse consequences vary. Public
21 health researchers (Korn & Shaffer 1999; Shaffer & Korn 2002) have identified a continuum
22 of risky gambling behaviour and severity of gambling-related harms. Gambling problems and
23 accompanying harms can range from no risk, to low risk, moderate risk and problem
24 gambling. Even though the gambling behaviour of problem, moderate risk and low risk
25 gamblers varies, most are regular gamblers (Delfabbro 2009) experiencing gambling harms at
26 least sometimes. The limited literature on gambling-related harms amongst Indigenous
27 peoples is now reviewed. It will be apparent that previous research has generally found that
28 Indigenous people experience the same types of gambling-related harms as non-Indigenous
29 people, but that the extent and impacts of these harms may be greater for Indigenous people
30 already living in poverty and may be more widespread due to higher rates of gambling
31 problems and larger kinship networks. Further, some cultural impacts of gambling, such as
32 degradation of traditional values and mores, are felt disproportionately by Indigenous and
33 other minority cultural groups living in Western-dominated societies.
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51 Financial Harms from Gambling

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53 International research amongst Indigenous populations has highlighted a range of financial
54 harms from gambling, including debt, poverty and bankruptcy. For example, gambling debts
55 were found to create a variety of problems for some Maori gamblers and their families in
56 New Zealand (Dyall 2009). Schluter, Bellringer and Abbott’s (2007) gambling study of
57 Pacific Islanders residing in New Zealand found that “poorer basic household nutritional
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variety and stress [were] due to lack of money” (p. 89). Williams et al. (2011a) note that bankruptcy is a common financial impact experienced by Canadian First Nations people when gambling problems arise.

Breen et al.’s (2011) qualitative study yielded rich insights into the financial harms from gambling amongst Indigenous Australians in NSW. Harms were reported as losing an entire pay in one gambling session and increasing debts as gamblers chased losses, sometimes with borrowed money. Borrowing to fund gambling had flow-on effects throughout the community as gamblers borrowed from each other and from non-gamblers. Consequently, some respondents in Breen et al.’s (2011) study noted these gamblers tended to live in poverty and often needed money to repay debts and to purchase essentials. Such financial difficulties often underpinned further negative consequences for the gambler and others.

Personal Harms from Gambling

Personal harms from gambling amongst some Indigenous people have been identified as poor health (Currie 2007) and comorbid disorders such as depression (AH&MRC 2007; Dyall 2009; Hunter & Spargo 1988), anxiety and alcoholism (Cozzetto & Larocque 1996; Hunter 1993). In extreme cases, gambling problems are linked to suicide (Williams et al. 2011a). Social isolation and unemployment are other personal impacts of gambling (McDonald & Wombo 2006; Young et al. 2006). Breen’s (2012) qualitative study of Indigenous gamblers in north Queensland uncovered further harms experienced by problem gamblers who were reluctant to seek help. She found that this reluctance “exacerbated negative gambling consequences of shame, stigma and even denial” (p. 12).

Interpersonal Harms from Gambling

Dyall (2009) contends that relationships with immediate and extended family are where gambling and problem gambling have the greatest impacts. Indeed, several studies have identified problem gambling as a contributor to spousal and other family relationship breakdown amongst Indigenous people (Cozzetto & Larocque 1996; Morrison 2004; William et al. 2011a). Family in-fighting and violence are further consequences of gambling-related problems that directly impact upon relationships (Breen et al. 2011; Cultural Perspectives 2005; Queensland Department of Corrective Services 2005; Queensland Government 2010; Wātene et. al. 2007; Williams et al. 2011a).

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General neglect of children is acknowledged as a major gambling-related harm. As Dyall (2009) explains, “While there may be no intention to harm children, it is the children of parents with a gambling addiction that bear the burden of neglect” (p. 23). Specific harms identified include school absenteeism and/or compromised educational opportunities (Hunter & Spargo 1988; McDonald & Wombo 2006; Papineau 2009) and diminished access to basic essentials including food and clothing (Cultural Perspectives 2005; Dyall 2009; Schluter et al. 2007; Wātene et. al. 2007). Parental gambling has also been associated with child behavior problems (Momper & Jackson 2007; Zubrick et al. 2005), and heightened risk of sexual abuse due to parents being absent while gambling for long periods of time (Dion et al. 2010; Wild & Anderson 2007). Moreover, Breen et al. (2011) identified underage gambling, as well as normalization of gambling as a legitimate means of earning income amongst younger generations, as negative consequences of community card gambling to which young people are exposed.

Cultural and Community Harms from Gambling

Gambling and problem gambling can impact on Indigenous cultures and communities. In New Zealand, Dyall and Hand (2003) found that Maori children were at risk of not engaging with Elders in their community due to gambling, thus constraining the diffusion of Maori knowledge to younger generations. Similarly, a longitudinal study into Aboriginal communities in North Dakota (Cozzetto & Larocque 1996) found that gambling contributed to a degradation of tribal culture and institutions. In Australia, Brady (2004) speculated that potential threats to Indigenous culture posed by gambling have prompted resistance by some Indigenous communities to the introduction of gaming machines nearby.

Additional to cultural impacts, gambling can affect Indigenous communities in numerous ways, including increased crime (Breen et al. 2011) and unemployment (Williams et al. 2011a). Gambling can drain funds from communities (Hunter 1993). Cozzetto and Larocque (1996) argue that social dysfunction attributable to gambling can discourage outside investment in Indigenous community infrastructure. Moreover, gambling can diminish community cohesiveness (Phillips 2003). Smith, Currie and Battle’s (2011) quantitative Canadian study found that problem gamblers felt less integrated with their community than non-problem gamblers across a range of related measures; although, the authors did caution about their small non-representative data. However, while prior studies have illuminated the *types* of negative impacts that gambling can have on Indigenous gamblers, their families and their communities, knowledge about the *extent* of these impacts

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remains inconclusive, mainly because no published quantitative studies have attained adequate representative samples of Indigenous respondents.

Gambling Help-Seeking

Experiences of gambling harms sometimes prompt a search for help to address gambling problems. People may seek formal help by attending treatment services or counselling, although in Australia only about 10% of problem gamblers seek this type of help (Hing, Nuske & Gainsbury 2011). They might exclude themselves from gaming venues or join support groups such as Gambler's Anonymous. People may also use the informal support of friends and family. Alternatively they may use self-help strategies to control their gambling such as leaving money and debit cards at home or setting time limits for gambling (Productivity Commission 2010). However, gambling help-seeking may be reduced due to lack of awareness of gambling harms or poor access to information and problem gambling services (McMillen et al. 2004; Raylu & Oei 2004). Culturally, some gambling help services do not suit Indigenous people (McMillen et al. 2004). Language barriers, power disparities, confidentiality issues, value conflicts and shared, overcrowded housing may be obstacles (CIRCA 2011; Dyall 2010; McMillen & Bellew 2001). As part of a larger project, a small sample of 36 Indigenous regular gamblers in two areas of northern Australia with high Indigenous populations revealed that they preferred self-help strategies to avoid shame and embarrassment and also to avoid culturally inappropriate services (Breen, Hing, Gordon & Holdsworth in press). A lack of Indigenous counsellors has been identified as a barrier to help-seeking (Breen et al. 2011). Indigenous people may not be comfortable with the direct and open communication style that most counselling situations involve (Cultural Perspectives 2005). Investigating gambling with 381 First Nations and Metis people in Edmonton, Currie (2011) reported that only 10 of the 60 problem gamblers had sought gambling help. In New Zealand, Bellringer, Pulford, Abbott, DeSouza and Clarke (2008) recommended greater Maori involvement in raising awareness of help services, de-stigmatising help-seeking behaviour and in helping design appropriate services. However, little is known about the help-seeking activities of Indigenous Australian gamblers as very few present to formal treatment services (Breen et al. 2011). Little is also known about the sources of help used by Indigenous Australian gamblers when faced with gambling-related problems and about the type of help they would prefer. In this paper we begin to address this research gap.

Methods

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2 According to Indigenous researchers Martin (2008) and Rigney (1997), much previous
3 research into gambling within Indigenous populations has been undertaken through a
4 Western colonial lens and has discounted Indigenous worldviews. In designing and
5 undertaking the present study, consideration was given to formulating a methodology
6 sympathetic to the needs and views of Indigenous persons. Ultimately, the researchers were
7 guided by three published guidelines for conducting ethical research. These were the
8 *National Statement on Ethical Conduct in Research Involving Humans* (National Health and
9 Medical Research Council (NHMRC) 2007), the *Guidelines for Ethical Research in*
10 *Australian Indigenous Studies* (Australian Institute of Aboriginal and Torres Strait Islander
11 Studies (AIATSIS) 2012), and a publication on ethical research involving Aboriginal and
12 Torres Strait Islanders (NHMRC 2003).

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14 Thus, the research methodology developed gradually through meetings and
15 consultations with community leaders, Elders, the study communities, Indigenous
16 organisations (local, state and national), boards of directors and event organisers in a cyclical
17 process. This process was facilitated by one member of our team, an Indigenous Australian
18 researcher. Local Indigenous people (33) were employed as research personnel. Consent was
19 obtained to publish this paper. These activities contributed to reciprocity, responsibility and
20 equality. At each community event where data were collected, public education and
21 promotional material on gambling impacts was provided. Gambling help agency cards with
22 their hotline telephone numbers were handed out. These activities upheld the researchers'
23 obligations relating to Indigenous principles of research especially in protection, spirit and
24 integrity.

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 Sampling and Data Collection

45 Quantitative methods were used, with a gambling survey administered to a convenience
46 sample of self-selected Indigenous adults. The survey was administered face-to-face at three
47 Indigenous sports and cultural festivals, by mail in several Indigenous communities, and in an
48 online format from January to November 2011.

49 The three festivals, which each attracted mainly Indigenous Australians, were: the
50 one-day Saltwater Freshwater Festival (SW/FW) which yielded 276 completed surveys from
51 an estimated 2,000-5,000 attendees; the four-day NSW Aboriginal Rugby League Knockout
52 which yielded 499 completed surveys from the 5,000-10,000 Indigenous participants and
53 spectators; and the three-day First Contact Sport and Cultural Festival, where a further 353
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1 surveys were collected from the 3,000-5,000 attendees. To maximize benefits for Indigenous
2 communities, 33 local Indigenous residents were employed as university research assistants
3 to administer the surveys. Training in survey administration procedures, safety and other
4 issues was provided by the research team in the week preceding data collection. Pairs of
5 research assistants approached Indigenous festival attendees, explained the research aims and
6 asked them to complete the gambling survey. If people agreed, they were given a survey and
7 self-sealing envelope which, after completion, was placed in a secure box.
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12 The same survey was placed online and advertised through Facebook and through
13 with links from Indigenous health, education, employment, responsible gambling and
14 gambling-help websites. Overall, 79 surveys were completed online. Over 65 Indigenous
15 community leaders were also contacted personally and asked to publicise the survey in their
16 communities. From posting out flyers, surveys and pre-paid return envelopes, 66 completed
17 surveys were returned by mail.
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22 Participation was voluntary and anonymous for all versions of the survey. At each
23 festival a random draw prize of a \$200 shopping voucher was offered to respondents. A
24 similar draw occurred every two months for the mail and online survey respondents. In total,
25 1,273 completed surveys were collected. Fourteen surveys were excluded from analysis as six
26 participants did not include their age and eight indicated they were aged under 18 years.
27 Thus, the following analyses are drawn from 1,259 respondents, but should be interpreted
28 within the limits of the self-selecting sampling process used. We cannot claim that the
29 findings are representative of Indigenous Australians, and the sample may be biased towards
30 people who were interested in the survey topic or people who are more likely to attend
31 sporting and cultural events.
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44 Instrument Development

45 Past gambling surveys, recent research findings, community consultations and standard
46 survey instruments were used as a basis for survey development. Additionally, the survey
47 questions and response categories were simplified as much as possible to accommodate
48 varying English literacy levels amongst Indigenous Australians. The nine-item *Problem*
49 *Gambling Severity Index* (PGSI) with standard scoring and cut-off points was used to
50 measure the prevalence of non-problem, low risk, moderate risk and problem gambling
51 (Ferris and Wynne 2001). While the survey did not ask about all potential types of gambling
52 harms, with some questions deleted on community advice, it did capture data on problem
53 gambling behaviors and adverse consequences through the PGSI. Additionally, the survey
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1 asked “Has your gambling ever led to any of the following?”, with 11 possible harms listed
2 pertaining to relationships (e.g. “You separating or divorcing your partner”), health (e.g.,
3 “You suffering from depression”), employment (e.g. “You losing a job”), legal problems
4 (e.g., “You having problems with police or committing a crime”, and financial harms (e.g.,
5 “You being declared bankrupt”), with yes/no response categories provided. Focusing on a
6 common gambling harm, participants were asked what they did when they experienced
7 financial difficulties due to their gambling. Responses were reported as ‘yes’ or ‘no’ to nine
8 options provided (e.g., “I obtained emergency help”, “I relied on family, relatives or friends”,
9 “I went without”). Participants were then asked if they had sought help for gambling-related
10 problems. If ‘no’, they were asked for their reasons from nine options provided (e.g., “I don’t
11 have a gambling problem”, “I didn’t know where to seek help”, “I was too embarrassed to
12 seek help”). If ‘yes’, they were asked the source of that help with 11 options provided (e.g.,
13 “From my family, relatives of friends”, “From a respected member of my community”,
14 “From Gamblers’ Anonymous”). Finally, participants were asked about preferred services for
15 gambling help (e.g., “A local Aboriginal gambling counselling service”, “A local non-
16 Aboriginal gambling counselling service”, “A local money management & budgeting
17 service”). Demographic data were also collected for ethnic origin, gender, age, postcode of
18 residence, marital status, and source of personal income.
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33 34 35 Data Analysis

36 All analyses were performed in SPSS v.20. Analyses were conducted using an alpha of 0.05
37 (unless stated otherwise). Where post-hoc tests were required for the reported chi-square
38 analyses, a z-test using the Bonferroni correction was applied. Effect sizes for significant
39 results are reported throughout. Because this research was exploratory, given the limited prior
40 research in this area, no formal hypotheses were developed for testing. Nevertheless, we
41 expected those with higher levels of problem gambling to experience more harms, both
42 financial and personal/relational. However, no direction was expected for the help seeking
43 questions, as these questions were designed to determine who is more likely to seek help and
44 where they were likely to seek it.
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54 55 Sample Characteristics

56 Most participants (92.2%) identified as being of Aboriginal origin while 3.8% reported they
57 were of Torres Strait Island origin and 4.0% identified as both. Age groups between 35-64
58 years were slightly overrepresented in the sample, while groups aged under 34 years and
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older than 65 years were slightly underrepresented compared to Australian Bureau of Statistics (ABS) (2006) figures, $\chi^2(10, N = 1,109) = 57.0, p < 0.001, \Phi = 0.23$. Excluded from this analysis was the age bracket of 18-19 years, because comparable ABS statistics were not available. Females comprised 58.4% of the sample compared to 50.2% Indigenous females from census data (ABS 2006), $\chi^2(1, N = 1,176) = 31.51, p < 0.001, \Phi = 0.16$. There were no significant differences between genders in terms of age-group breakdown, $\chi^2(11, N = 1,168) = 17.71, p = 0.09, \Phi = 0.12$. The principal marital status was never married (42.9%), followed by married (24.3%) and living with a partner (23.4%). Most participants (62.6%) indicated that work was their main source of income, while 30.1% depended entirely on a pension. From the 1,259 participants, 248 (19.7%) reported not gambling. Thus, 80.3% had gambled in the past year. These participants took part in 3.47 ($SD = 2.93$) different gambling activities, on average, out of the eleven different gambling activities surveyed.

Results

Problem Gambling Behaviours and Harms as Measured by the PGSI

A total of 964 gamblers completed all nine questions of the PGSI. Amongst all respondents ($N = 1,259$), 23.4% were classified as non-gamblers, 28.0% as non-problem gamblers, 12.5% as low risk gamblers, 16.6% as moderate risk gamblers and 19.5% as problem gamblers.

Table 1 presents the frequency distributions for the nine PGSI items, for all gamblers and by PGSI group. Responses to each PGSI item provide insights into some harms arising from gambling. Amongst all gamblers in the past 12 months, the three most prevalent harms are - betting more than they can afford to lose (49%), feeling guilt or regret about their gambling (44%) and chasing losses (44%). These were followed in descending order by - gambling causing financial problems (38%), feeling that they might have a problem with gambling (36%), being criticised for gambling (34%), needing to gamble with larger amounts of money to get the same feeling of excitement (34%), borrowing or selling something to get money for gambling (25%) and, gambling causing health problems (25%).

Amongst the problem gamblers, 93.8% indicated that they had, at least sometimes, bet more than they could afford to lose, 92.9% reported betting with larger amounts of money to get the same feeling of excitement and 96.2% reported chasing losses. However, problem gamblers appeared to be aware of their problem, with 96.2% reporting that they feel they

1 might have a problem, 94.9% indicating gambling-induced health problems and 95.8%
2 indicating that other people have suggested that they have a problem.
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7 Other Harms Attributable to Gambling 8

9 Respondents were asked if any of the harms listed in Table 2 had ever resulted from their
10 gambling. Table 2 indicates the frequency of 'yes' responses by PGSI gambler group.
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13 INSERT TABLE 2 ABOUT HERE
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16 For every one of these questions, there were significant differences between PGSI
17 groups (smallest $\chi^2(3, N = 887) = 64.71, p < 0.001, \Phi = 0.27$ for being declared bankrupt).
18 Follow-up comparisons, using Bonferroni-corrected z-tests, indicated that a significantly
19 higher proportion of problem gamblers reported experiencing every issue compared to all
20 other PGSI categories. Significant differences between other PGSI groups were less
21 consistent across questions, with the notable exception that a significantly higher proportion
22 of moderate risk gamblers (18.0%) had experienced gambling-related arguments within their
23 household compared to low risk gamblers (2.8%) and non-problem gamblers (0.9%).
24 Arguments and depression were the two most commonly experienced harms of those listed,
25 indicating that both the gambler and household members were adversely affected.
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36 Financial Harms

37 One question in the PGSI asks whether the respondent's gambling has caused any financial
38 problems for them or their household in the last 12 months. Those who answered 'yes' were
39 asked what they did when the money ran out. Table 3 shows the number of 'yes' responses
40 overall and the proportion of 'yes' responses by problem gamblers to a range of possible
41 actions.
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49 Almost two-thirds of respondents (64.4%) who had experienced financial problems
50 with gambling reported that they relied on family, friends or relatives, while 61.4% went
51 without. Nearly one-half (48.6%) did not pay, or put off, urgent bills. For all of these
52 questions, the vast majority of those who took these actions when their money ran out were
53 problem gamblers. The reliance on family, relatives and friends shows the flow-on effects of
54 an individual's gambling to others in the community. Going without shows the deprivation
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1 suffered when gambling more than a person can afford. The extensive reach of financial harm
2 represents a serious drain on the gambler, their family and kin, and community resources.
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5 Attempts to Seek Gambling Help 6

7 Respondents who reported any type of gambling in the previous 12 months were
8 asked about attempts to seek help for gambling-related problems, with 919 participants
9 responding to these questions. Most (91.2%) had never sought gambling help, while 3.4%
10 had sought help but received none, with only 5.4% seeking and receiving help.
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16 Reasons for Not Seeking Help 17

18 Table 4 shows reasons for not seeking gambling help by PGSI group. Amongst the problem
19 gambler group, those most in need of help, over one-half (56.6%) felt they could beat the
20 gambling problem by themselves. However, of concern is that 44.4% of the problem
21 gamblers reported that did not think they had a gambling problem, suggesting denial of
22 problems arising from gambling. Other major barriers to help-seeking amongst the problem
23 gambler group were not wanting anyone to tell them to stop gambling (43.9%) and being too
24 embarrassed to seek help (43.7%). Other barriers to help-seeking, each endorsed by around
25 one-third of the problem gamblers, was linked to help service delivery, including concerns
26 about confidentiality, not knowing where to seek help, lack of appropriate help locally, and
27 concerns whether a help service would understand the respondent's cultural background.
28 Overall, the problem gambler group was significantly more likely than the other PGSI groups
29 to endorse each statement in Table 4 except for not thinking they had a gambling problem.
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40 INSERT TABLE 4 ABOUT HERE
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45 Where Help was Sought

46 The 81 participants who had sought help were asked where they had done so. Of those who
47 responded, almost two-thirds (66.2%) had asked their family or friends for help, nearly one-
48 half (49.2%) had sought help from a respected member of the community, while 42.9% had
49 gone to a gambling counselling service and 41.5% had gone to an Aboriginal community
50 health service for gambling help. Thus, informal help was preferred over formal help. Chi-
51 square tests of independence revealed one significant difference between those who did and
52 did not receive help in terms of where they had sought it. A significantly higher proportion of
53 those who sought help and did not receive it (37.5%) used the Gambling Help Telephone
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2 Hotline, compared to 15.0% of those who sought help and did receive it. No other significant
3 differences were observed. Table 5 summarises these results.

4 INSET TABLE 5 ABOUT HERE
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7 Preferred Gambling Help Services

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9 All participants were asked which services they believed would best help Indigenous
10 Australians affected by gambling problems. The most popular responses were a local
11 Aboriginal gambling counselling service (84.9%) and a local Aboriginal gambling liaison
12 person (84.5%). A money management and budgeting service was perceived as a very useful
13 preventative service (67.3%), while a local non-Aboriginal gambling counselling service was
14 only seen as useful by 43.3% of respondents.
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20 An open-ended response labelled 'other' was also available and 46 text responses
21 were collected from the 322 people who responded. Of these, 9 were invalid, irrelevant or
22 repeated some of the items above. Fourteen of the remaining 37 responses indicated that an
23 Aboriginal service (different to the ones above) would be most appropriate. Other themes
24 included one-on-one or group support services where Aboriginal status was not mentioned (N
25 = 11), education or advertisements ($N = 3$), religion ($N = 2$), the removal of poker machines
26 ($N = 2$) and employment ($N = 2$). Table 6 shows these results.
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33 INSERT TABLE 6 ABOUT HERE
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36 Thus, responses to the PGSI revealed gambling harms related to a range of financial
37 difficulties and guilt and regret about gambling. Additional personal, relationship, family,
38 community, legal and housing impacts were also found to be significantly higher for problem
39 gamblers. When experiencing financial difficulties from gambling, most problem gamblers
40 rely on family, extended family and friends, or go without. While the results show that the
41 majority of gamblers (57.7%) experienced some risk with their gambling, almost half the
42 problem and moderate risk gamblers did not think they had a gambling problem. As well as
43 trying to resolve their own gambling problem, of those who sought gambling help, family and
44 friends and respected community members were consulted. The preferred source of help for
45 gambling-related problems was local Aboriginal services.
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56 Discussion

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58 This paper analyzed the harms arising from gambling and aspects of gambling help-seeking
59 behaviour within the largest, albeit self-selected, sample of Indigenous Australians attained to
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1 date. Valid comparisons were made between PGSI groups, although the overall frequency of
2 identified harms and help-seeking behaviors could be different in a representative, random
3 sample. However, strengths of this research are that it was guided by consultations with
4 Indigenous Australians and it identifies a range of gambling harms and help-seeking activities
5 that can inform appropriately targeted public health interventions relevant to Indigenous
6 Australians.
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10 Financial harms from gambling were very obvious, with almost half the gamblers and
11 nearly all the problem gamblers reporting they had sometimes bet more than they could
12 afford to lose during the previous 12 months. Loss of control while gambling was a more
13 common experience for the gamblers in our sample compared to the adult population of
14 gamblers in NSW (Sproston et al. 2012). A cycle of losing control, over-spending, chasing
15 losses and borrowing is similar to that reported in previous Indigenous Australian research,
16 including in Breen et al.'s (2011) and Breen's (2012) qualitative studies, and in previous
17 international research in Canada (Oakes et al. 2004; Williams et al. 2011a) and New Zealand
18 (Dyall 2009; Schluter et al. 2007). Other Australian research (Cultural Perspectives 2005) has
19 revealed negative financial consequences for some Indigenous Australian gamblers as debt,
20 spending all money on pay day, and having no money for bills and food. Gamblers do not
21 always repay their family loans and children sometimes go without due to gambling (Cultural
22 Perspectives 2005). Thus, gambling-related problems can be financially devastating for
23 people already in disadvantaged circumstances (Wardman et al. 2001; Williams et al. 2011a;
24 Stevens & Young 2009) which many Indigenous Australians are (ABS 2012; Atkinson
25 2002).
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40 Harms to health and wellbeing from gambling were also apparent in the current
41 research, including stress, anxiety, depression and arguments. These harms were reported by
42 substantial proportions of the problem gamblers. Co-morbid disorders, particularly
43 depression and anxiety, are common amongst problem gamblers in general (Delfabbro 2009;
44 Holdsworth, Haw & Hing 2011). Additionally, poor health associated with gambling by
45 Indigenous people has been reported in other Australian (Hunter 1993; Breen et al. 2011;
46 Cultural Perspectives 2005) and overseas research (Currie 2007). Further, nearly one-third of
47 all gamblers in the current study sometimes felt guilt or regret about their gambling in the
48 previous 12 months, which takes an emotional toll. Emotional stress caused by gambling and
49 its consequences were also captured by Currie (2011) for some First Nations people in
50 Canada. Some problem gamblers also reported having been involved in violent incidents,
51 relationship breakdowns, losing jobs, eviction, theft and problems with police. Nearly all had
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been criticized for their gambling. Health and wellbeing were certainly affected by problem gambling.

A truly important finding in this research is the extensive nature or broad reach of gambling harms within these Indigenous communities. Although not directly comparable given the self-selecting sample in the currently study, problem gambling prevalence amongst the study participants was over 24 times the prevalence found in the general NSW population, while the moderate risk gambling rate was over five times higher (Sproston et al. 2012). Our findings also align with the NSW study findings that gambling appears more popular amongst Indigenous than non-Indigenous Australians (Sproston et al. 2012). Further, with typically much larger households and kinship networks amongst Indigenous compared to non-Indigenous people (ABS 2012; Breen 2012), negative gambling consequences have been found to have wide-ranging ripple effects based on the high reliance by gamblers on family, kin and friends. In describing gambling impacts on reciprocal cultural obligations or demand sharing (sometimes called humbugging), McDonald and Wombo (2006) concluded that many Indigenous Australians are subject to constant requests or demands from family for money for gambling. It is difficult to refuse such requests and refusals may result in being ostracized by the family. Social and cultural pressure to provide money to those requesting it for gambling has been noted in other Indigenous research (AHMRC 2007; Hunter 1993; Phillips 2003). Because the financial burden of gambling losses disseminates through a community, problem gamblers may have little immediate need to face their gambling problems when the burden is shared.

Negative impacts of gambling also extend to kinfolk and friends. Because Indigenous Australians tend to have large families, estimates of problem gambling negatively affecting at least five other people (Productivity Commission 1999) are probably an underestimation in Indigenous communities. Nearly one-half of the problem gamblers in the current study reported that gambling had led to household arguments, with one in five separating from their partner and reporting incidents of violence with family, friends and others due to their gambling. Losing contact with children and children not attending school because of gambling activities were reported by one-tenth of problem gamblers. Relationship problems due to gambling have been commonly reported in previous studies of Indigenous gambling. Breen et al. (2011) identified these harms as child neglect, violence, abuse and relationship breakdown, while Williams et al. (2011a) noted that these impacts included never being home, having no time for family, marriage/family problems, family violence, and children being left alone. Reflecting findings of concern in other studies of Indigenous gambling

1 (Hewitt 1994; Schluter et al. 2007), the current research also found that some gambling harms
2 cascade down to gamblers' dependents and extend outwards to others.

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4 Further, the high rates of gambling problems in the study sample may be transferred
5 across generations, with current Australian estimates being that about 15-20% of children
6 born to problem gamblers will also develop gambling problems (Delfabbro 2009). The
7 intergenerational effects of high levels of gambling problems in the study sample are yet to
8 be felt. In summary, harms arising from gambling in the study sample and impacting on
9 people's finances, health and wellbeing, relationships, children and employment, were found
10 to be serious, diverse and extensive.

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12 For the 396 participants who did not seek gambling help because they did not think
13 they had a gambling problem, 229 or 57.7% of this group were facing some risks with their
14 gambling. In fact 69 were problem gamblers, 84 were moderate risk gamblers and 76 were
15 low risk gamblers. As traditional card gambling can play an important social role for
16 Indigenous communities by reinforcing cultural obligations and sometimes redistributing
17 money within the community (Altman 1985; Martin 1993), some Indigenous gamblers may
18 not identify as having a gambling problem even though gambling-related harm, especially
19 from commercial gambling, is impacting on their lives. This finding raises the need for social
20 marketing and community education publicising gambling impacts, alerting gamblers and
21 non-gamblers alike to the harms arising from uncontrolled gambling.

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23 The proportion of gamblers who felt they may have a gambling problem and then
24 actually sought help is very small (8.8%), especially given that this figure includes seeking
25 formal and informal sources of help. It is only half that (17%) reported by Currie (2011) with
26 Indigenous people in Canada. Aligned with qualitative evidence that self-help strategies
27 might be preferred (Breen, Hing, Gordon & Holdsworth in press), most problem gamblers
28 thought they could overcome the problem on their own. Most participants who had sought
29 help depended on informal assistance from their family, extended kin, friends and respected
30 community members. This circle of help is potentially extensive, involving many people.
31 This key finding demonstrates the reach and spread of social networks within a collectivist-
32 style cultural group in dealing with a community problem. Developing public health alliances
33 using existing Indigenous social networks may be an opportunistic yet appropriate means of
34 providing advice and early intervention for gambling problems.

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36 Similarly, participant preferences for gambling help services showed clear support for
37 Indigenous Australian involvement such as Indigenous counsellors, liaison people and
38 financial management providers. Based on mutual consultation and cooperation with local
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1 community groups, the development of culturally appropriate services with trained
2 Indigenous providers may help in dismantling some of the barriers to addressing gambling
3 problems reported by others (see, for example, Bellringer et al. 2008; Breen et al. 2011;
4 CIRCA 2011; McMillen & Bellew 2001). Given the volume of support for these public
5 health measures and the extent of gambling-related harms revealed in this research, it appears
6 that immediate planning to address Indigenous gambling problems is appropriate.
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10 11 12 **Conclusions**

13 Gambling and gambling-related problems can lead to serious and extensive harms for
14 Indigenous gamblers, their children, other family members, friends and the broader
15 community. The harms examined in this study include those measured by the PGSI,
16 including financial harms, personal guilt and regret, plus additional harms to health and
17 wellbeing, relationships, children, living conditions and the community. With high levels of
18 gambling problems found in this research, it is not surprising that the harms from gambling
19 were found to spread outwards to include family, extended family, friends and their
20 dependents in a wide circle. Of critical importance is that these same people may be able to
21 provide early, informal gambling assistance to at-risk gamblers providing they have some
22 awareness and knowledge about gambling harms and how to address them. From a culturally
23 collectivist view, these same people are traditionally expected to assist anyone requesting
24 help. It is hoped that this study has improved the understanding of the extent of these
25 gambling-related harms so that appropriate measures can be introduced to not only address
26 these impacts, but also to minimize the gambling problems in these communities which are
27 the source of these harms. Additional research is warranted to identify the most appropriate
28 measures and to also examine the nature and extent of gambling-related harms in other
29 Indigenous communities.
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47 **References**

- 48
49
50 Aboriginal Health & Medical Research Council of NSW (AH&MRC). (2007). *Pressing*
51 *problems: Gambling issues and responses for NSW Aboriginal communities*. Sydney:
52 Author.
53
54
55
56 Alegría, A., Petry, N., Hasin, D., Liu, S-M., Grant, B., & Blanco, C. (2009). Disordered
57 gambling among racial and ethnic groups in the US: Results From the National
58 Epidemiologic Survey on Alcohol and Related Conditions. *CNS Spectrums*, 14(3),
59
60
61
62
63
64
65

132-142.

- 1
2 Altman, J. (1985). Gambling as a mode of redistributing and accumulating cash among
3 Aborigines: A case study from Arnhem Land. In G. Caldwell, B. Haig, D. Sylvan &
4 L. Sylvan (Eds), *Gambling in Australia* (pp. 50-67). Sydney: Croom Helm.
5
6
7 Atkinson, J. (2002). *Trauma trails recreating songlines: The transgenerational effects of*
8 *trauma in Indigenous Australia*. Melbourne: Spinifex Press.
9
10 Australian Bureau of Statistics (ABS). (2006). *National Aboriginal and Torres Strait Islander*
11 *health survey 2004-05: Catalogue No. 4715.0*. Canberra: Author
12
13 Australian Bureau of Statistics (ABS). (2012). *Census of population and housing - counts of*
14 *Aboriginal and Torres Strait Islander Australians, 2011: Catalogue 2075.0*.
15
16 Canberra: Author.
17
18
19 Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS). (2012).
20
21 *Guidelines for ethical research in Australian Indigenous studies*. Canberra: Author.
22
23 Belanger, Y. (2011). (editor) *First Nations Gaming in Canada*. Winnipeg: University of
24
25 Manitoba Press. DOI: 10.1080/14459795.2011.616909.
26
27 Bellringer, M., Perese, L., Abbott, M., & Williams, M. (2006). Gambling among Pacific
28
29 mothers living in New Zealand. *International Gambling Studies*, 6(2), 217-235.
30
31 Bellringer, M., Pulford, J., Abbott, M., DeSouza, R., & Clarke, D. (2008). *Problem Gambling*
32 *- Barriers to Help Seeking Behaviours*. Auckland: Auckland University of
33
34 Technology.
35
36 Brady, M. (2004). *Regulating social problems: The pokies, the Productivity Commission and*
37 *an Aboriginal community*. Discussion paper no. 269/2004. Canberra: Centre for
38
39 Aboriginal Economic Policy Research, Australian National University.
40
41 Breen, H. (2012). Risk and protective factors associated with gambling consequences for
42
43 Indigenous Australians in north Queensland. *International Journal of Mental Health*
44 *and Addiction*, 10(2), 258-272. DOI: 10.1007/s11469-011-9315-8.
45
46 Breen, H., Hing, N., & Gordon, A. (2011). Indigenous gambling motivations, behaviour and
47
48 consequences in Northern New South Wales, Australia. *International Journal of*
49 *Mental Health and Addiction*. 9(6), 723-739. DOI: 10.1007/s11469-010-9293-2
50
51 Breen, H., Hing, N., Gordon, A., & Holdsworth, L. (in press). Indigenous Australians and
52
53 their gambling help-seeking behaviour. In Youngkyun Baek (ed.), *Psychology of*
54 *Gaming: New Research*. New York: Nova Science Publishers.
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57
58
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60
61
62
63
64
65
- Carroll, A., Davidson, T., Marsh, D., & Rodgers, B. (2011). *Help-seeking and Uptake of Services Amongst People with Gambling Problems in the ACT*. Canberra: Australian Capital Territory Gambling and Racing Commission.
- Conner, T., & Taggart, W. (2009). The impact of gaming on the Indian Nations in New Mexico. *Social Science Quarterly*, 90(1), 50-70.
- Cozzetto, D., & Larocque, B. (1996). Compulsive gambling in the Indian community: A North Dakota case study. *American Aboriginal Culture and Research Journal*, 20(1), 73-86.
- Cultural & Indigenous Research Centre Australia (CIRCA). (2011). *Development of culturally appropriate problem gambling services for Indigenous communities*, Occasional Paper No. 40. Canberra: Commonwealth of Australia.
- Cultural Perspectives Pty Ltd. (2005). *Problem gambling research report for Indigenous communities*. Melbourne: Victorian Department of Justice.
- Currie, C. (2007). The placement of casinos in Alberta's Aboriginal communities: An interview with Cheryl Currie. *Gambling Research Reveals*, Alberta Gaming Research Institute 7(1), 1-4. October/November.
- Currie, C. (2011). *How is problem gambling impacting urban Aboriginal Peoples?* Alberta Gaming Research Institute Conference, Banff, Alberta, April 8-9.
- Delfabbro, P. (2009). *Australasian gambling review, 4th. Edn.* Adelaide: Independent Gambling Authority of South Australia.
- Dion, J., Collin-Vézina, D., De La Sablonnière, M., Philippe-Labbé, M., & Giffard, T. (2010). An exploration of the connection between child sexual abuse and gambling in Aboriginal communities. *International Journal of Mental Health and Addiction*, 8, 174-189.
- Dyall, L., & Hand, J. (2003). Maori and gambling: Why a comprehensive Maori public-health response is required in New Zealand. *International Journal of International Mental Health & Addiction*, 1(1), 1-16.
- Dyall, L. (2009). *The impact of gambling on Maori*. Report commissioned by Ngā Pae o te Māramatanga. Retrieved on 12 January 2013 from:
http://www.maramatanga.ac.nz/sites/default/files/Dyall%20web%20ready_0.pdf
- Dyall, L. (2010). Gambling: A poison chalice for Indigenous peoples. *International Journal of Mental Health and Addiction*, 8, 205-213.
- Ferris, J., & Wynne, H. (2001). *The Canadian Problem Gambling Index: Final report*. Ottawa: Canadian Centre on Substance Abuse.

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65
- Gainsbury, S., & Breen, H. (2011). *Literature review of Aboriginal problem gambling and research direction recommendations*. Report prepared for the Ontario Problem Gambling Research Centre: Centre for Gambling Education and Research, Southern Cross University.
- Gray, R. (2011). *New Zealanders' Participation in Gambling: Results from the 2010 Health and Lifestyles Survey*. Wellington: Health Sponsorship Council.
- Hewitt, D. (1994). *The spirit of Bingoland: A study of problem gambling among Alberta Native people*. Edmonton: Nechi Training, Research and Health Promotion Institute, AADDAC.
- Hing, N. (2010). The evolution of responsible gambling policy & practice: Insights for Asia from Australia. *Asian Journal of Gambling Issues & Public Health*, 1(1), 19-33.
- Hing, N., Nuske, E., & Gainsbury, S. (2011). *Gamblers at Risk and Their Help Seeking Behaviour*. Melbourne: Gambling Research Australia.
- Holdsworth, L., Haw, J., & Hing, N. (2011). The temporal sequencing of problem gambling and comorbid disorders. *International Journal of Mental Health & Addiction*, 10(2), 197-209. DOI: 10.1007/s11469-011-9324-7.
- Hunter, E. (1993). *Aboriginal health and history, power and prejudice in remote Australia*. Cambridge: Cambridge University Press.
- Hunter, E., & Spargo, R. (1988). What's the big deal? Aboriginal gambling in the Kimberley region. *The Medical Journal of Australia*, 149, 668-672.
- Kayseas, B., Schneider, B., & Goodpipe, J. (2010). First Nations gaming in Saskatchewan: Fostering entrepreneurship, economic diversification, cultural preservation and awareness: a proposed research agenda. *Global Business and Economics Review*, 12(1/2), 21-41.
- Korn, D., & Shaffer, H. (1999). Gambling and the health of the public: Adopting a public health perspective. *Journal of Gambling Studies*, 15(4), 289-365.
- McDonald, H., & Wombo, B. (2006). *Indigenous gambling scoping study - Draft report*. Darwin: Charles Darwin University.
- McMillen, J., & Bellew, N. (2001). *ACT needs analysis, gambling support services*. Sydney: Australian Institute of Gambling Research.
- McMillen, J., & Donnelly, K. (2008). Gambling in Australian Indigenous communities: The state of play. *Australian Journal of Social Issues*, 43(3), 397-426.

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65
- McMillen, J., Marshall, D., Murphy, L., Lorenzen, S., & Waugh, B. (2004). *Help-seeking by problem gamblers, friends and families: a focus on gender and cultural groups*. Canberra: ACT Gambling & Racing Commission.
- Marshall, K., & Wynne, H. (2003). Fighting the odds. *Perspectives on Labour and Income*, 4(12), 5-13. Ottawa: Statistics Canada.
- Martin, D. (1993). *Autonomy and relatedness: An ethnography of Wik People of Aurukun, Western Cape York Peninsula*. Unpublished PhD Thesis. Canberra: Australian National University.
- Martin, K. (2008). *Please knock before you enter, Aboriginal regulation of outsiders and the implications for researchers*. Brisbane: Post Pressed.
- Ministry of Health (2009). *A Focus on Problem Gambling: Results of the 2006/07 New Zealand Health Survey*. Wellington: Ministry of Health.
- Momper, S. (2010). Implications of American Indian gambling for social work research and practice. *Social Work*, 55(2), 139-146.
- Momper, S., & Jackson, A. (2007). Maternal gambling, parenting, and child behavioral functioning in Native American Families. *Social Work Research*, 31(4), 199-209.
- Moore, T. (2008). *Oregon gambling treatment programs evaluation update 2008*. Salem: Department of Human Services.
- Morrison, L. (2004). Pokie gambling and Maori women: Friend or foe? *Journal of Gambling Issues*, 12. Retrieved on 12 January, 2013 from:
http://www.camh.net/egambling/issue12/jgi_12_morrison.html.
- National Gambling Impact Study Commission (1999). *National Gambling Impact Study Commission final report*. Washington: NGISC.
- National Health and Medical Research Council (NHMRC). (2003). *Values and ethics: Guidelines for ethical conduct in Aboriginal and Torres Strait Islander health research*. Canberra: Author.
- National Health and Medical Research Council (NHMRC). (2007). *National statement on ethical conduct in human research*. Canberra: Author
- Neal, P., Delfabbro, P., & O'Neil, M. (2005). *Problem gambling and harm: Towards a national definition*. Melbourne: Gambling Research Australia.
- Nova Scotia Health Promotion & Protection (2008). *2007 Adult Gambling Prevalence Study*. Halifax: Nova Scotia Department of Health Promotion and Protection.
- Oakes, J., Currie, C., & Courtney, D. (2004). *Gambling and problem gambling in First Nations communities*. Guelph: Ontario Problem Gambling Research Centre.

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- Papineau, E. (2009). *Gambling problems in First Nations and Inuit Communities of Québec: A brief status report*. Quebec: Institut national de santé publique du Québec.
- Phillips, G. (2003). *Addictions and healing in Aboriginal country*. Canberra: Aboriginal Studies Press.
- Productivity Commission (1999). *Australia's gambling industries: Report No. 10*. Canberra: Ausinfo.
- Productivity Commission (2010). *Gambling*. Productivity Commission Inquiry Report no. 50. Canberra: Australian Government.
- Pulford, J., Bellringer, M., Abbott, M., Clarke, D., Hodgins, D., & Williams, J. (2009). Barriers to Help-seeking for a Gambling Problem: The Experiences of Gamblers Who Have Sought Specialist Assistance and the Perceptions of Those Who Have Not. *Journal of Gambling Studies*, 25, 33-48.
- Queensland Department of Corrective Services (2005). *Games people play: Problem gambling in Queensland community corrections*. Brisbane: Queensland Government.
- Queensland Government (2008). *Queensland household gambling survey 2006-07*. Brisbane: Queensland Treasury.
- Queensland Government (2010). *Queensland household gambling survey 2008-09*. Brisbane: Queensland Department of Employment, Economic Development and Innovation.
- Raylu, N., & Oei, T. (2004). Role of culture in gambling and problem gambling. *Clinical Psychological Review*, 23(8), 1087-1114.
- Reith, G. (2007). Situating gambling studies. In G. Smith, D.C. Hodgins & R.J. Williams (eds). *Research and measurement issues in gambling studies* (pp. 3-29). Burlington MA: Elsevier.
- Rigney, L. (1997). Internationalism of an Aboriginal or Torres Strait Islander anti-colonial cultural critique of research methodologies: A guide to indigenist research methodology and its principles. In, R. Murray-Harvey & H. Silins (eds.). *Proceedings of the Higher Education Research and Development Society of Australasia (HERSDA) Conference* (pp. 629-636), Adelaide, 8-11 July.
- Rush, B., Moxam, R., & Urbanoski, K. (2002). Characteristics of people seeking help from specialised programs for the treatment of Problem Gambling in Ontario. *Journal of Gambling Issues*, 6. Retrieved on 12 January 2013 from: <http://jgi.camh.net/doi/full/10.4309/jgi.2002.6.9>.
- Schluter, P., Bellringer, M., & Abbott, M. (2007). Maternal gambling associated with families' food, shelter, and safety needs: Findings from the Pacific Island families study. *Journal of Gambling Issues*, 19, 87-90.

- 1 Shaffer, H., & Korn, D. (2002). Gambling and related mental disorders: A public health
2 analysis. *Annual Review of Public Health, 23*, 171-212.
- 3 Smith, G., & Wynne, H. (2002). *Measuring gambling and problem gambling in Alberta using*
4 *the Canadian Problem Gambling Index (CPGI): Final Report*. Edmonton, AB:
5 Alberta Gaming Research Institute.
- 6
7
8
9 Smith, G., Currie, C., & Battle, J. (2011). Exploring gambling impacts in two Alberta Cree
10 communities: A participatory action study. In Y. Belanger (Ed.), *First nations gaming*
11 *in Canada* (pp. 118-139). Winnipeg: University of Manitoba Press.
- 12
13
14 Sproston, K., Hing, N., & Palankay, C. (2012). *Prevalence of Gambling and Problem*
15 *Gambling in New South Wales*. Sydney: Ogilvy Illumination.
- 16
17
18 Stevens, M., & Young, M. (2009). *Reported gambling problems in the Indigenous and total*
19 *Australian population*. Melbourne: Gambling Research Australia.
- 20
21
22 Tse, S., Dyall, L., Clarke, D., Abbott, M., Townsend, S., & Kingi, P. (2010). Why people
23 gamble: A qualitative study of four New Zealand ethnic groups. *International Journal*
24 *of Mental Health and Addiction, 10*(6), 849-861. DOI: 10.1007/s11469-012-9380-7.
- 25
26
27 Wardle, H., Moody, A., Spence, S., Orford, J., Volberg, R., Jotangia, D., Griffiths, M., Hussey,
28 D., & Dobbie, F. (2011). *British Gambling Prevalence Survey 2010*. London:
29 National Centre for Social Research.
- 30
31
32
33 Wardman, D., el-Guebaly, N., & Hodgins, D. (2001). Problem and pathological gambling in
34 North American Aboriginal populations: A review of the empirical literature. *Journal*
35 *of Gambling Studies, 17*(2), 81-100.
- 36
37
38 Wātene, N., Thompson, K., Barnett, A., Balzer, M., & Turinui, M. (2007). *The impacts of*
39 *gambling for Maori Communities: A national Maori collaborative approach*.
40 Auckland: Te Rūnanga o Kirikiriroa Trust Inc Pou Tuia Rangahau (Research &
41 Development).
- 42
43
44
45 Wild, R., & Anderson, P. (2007). *Ampe Akelyernemane Meke Mekarle (Little children are*
46 *sacred)*, Report of the Northern Territory board of inquiry into the protection of
47 Aboriginal children from sexual abuse. Darwin: Northern Territory Government.
- 48
49
50
51 Williams, R., Stevens, R., & Nixon, G. (2011a). Gambling and problem gambling in North
52 American Aboriginal People. In Y. Belanger (Ed). *First Nations gambling in Canada:*
53 *Current trends and issues* (pp. 166-194). Winnipeg: University of Manitoba Press.
- 54
55
56
57 Williams, R.J., Rehm, J., & Stevens, R. (2011b). *The social and economic impacts of*
58 *gambling*. Lethbridge: Canadian Consortium for Gambling Research.
- 59
60
61
62
63
64
65

1 Young, M., Barnes, T., Morris, M., Abu-Duhou, I., Tyler, B., Creed, E., & Stevens, M.
2 (2006). *Northern Territory gambling prevalence survey 2005*. Darwin: Charles
3 Darwin University.
4

5 Zubrick, S., Silburn, S., Lawrence, D., Blair, E., & Cox, A. (2005). *The Western Australian*
6 *Aboriginal child health survey: The social and emotional wellbeing of Aboriginal*
7 *children and young people*. Perth: Curtin University of Technology and Telethon
8 Institute for Child Health Research.
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
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Table 1. Frequency distributions for PGSI items by PGSI group

Item	Response	NP	LR	MR	PG	All
In the last 12 months...						
N		353	157	209	245	964
		%	%	%	%	%
Have you bet more money than you could really afford to lose?	Never	100.0	52.9	21.7	6.2	51.0
	Sometimes	0.0	46.5	70.5	45.5	34.8
	Most of the time	0.0	0.6	5.8	30.6	9.2
	Almost always	0.0	0.0	1.9	17.8	5.0
Have you needed to gamble with larger amounts of money to get the same feeling of excitement?	Never	100.0	89.1	57.2	7.1	65.5
	Sometimes	0.0	10.9	38.9	53.8	23.8
	Most of the time	0.0	0.0	3.4	26.5	7.4
	Almost always	0.0	0.0	0.5	12.6	3.3
When you gambled, did you go back another day to try to win back the money you lost?	Never	100.0	67.3	32.2	3.8	55.7
	Sometimes	0.0	32.7	62.5	54.2	32.7
	Most of the time	0.0	0.0	4.8	28.8	8.3
	Almost always	0.0	0.0	0.5	13.1	3.4
Have you borrowed money or sold anything to get money to gamble?	Never	100.0	98.1	78.7	17.3	74.3
	Sometimes	0.0	1.9	21.3	50.2	17.5
	Most of the time	0.0	0.0	0.0	23.6	5.9
	Almost always	0.0	0.0	0.0	8.9	2.2
Have you felt you might have a problem with gambling?	Never	100.0	93.6	48.6	3.8	63.8
	Sometimes	0.0	6.4	50.0	50.4	24.5
	Most of the time	0.0	0.0	1.4	26.1	6.8
	Almost always	0.0	0.0	0.0	19.7	4.9
Have other people criticized your gambling – or told you they think you have a problem?	Never	100.0	90.4	56.6	5.1	65.2
	Sometimes	0.0	8.9	39.0	51.1	22.7
	Most of the time	0.0	0.6	4.4	30.4	8.7
	Almost always	0.0	0.0	0.0	13.5	3.4

Have you felt guilty/regret about the way you gamble or what happens when you gamble?	Never	100.0	67.5	30.1	4.2	55.4
	Sometimes	0.0	32.5	62.2	47.5	30.9
	Most of the time	0.0	0.0	5.3	29.7	8.5
	Almost always	0.0	0.0	2.4	18.6	5.2
Has gambling caused you health problems (including stress, anxiety)?	Never	100.0	98.1	76.6	18.4	74.3
	Sometimes	0.0	1.9	23.4	50.4	18.0
	Most of the time	0.0	0.0	0.0	21.8	5.4
	Almost always	0.0	0.0	0.0	9.4	2.3
Has your gambling caused financial problems for you or your household?	Never	100.0	94.2	70.5	15.3	71.5
	Sometimes	0.0	5.8	29.5	51.1	20.1
	Most of the time	0.0	0.0	0.0	23.4	5.8
	Almost always	0.0	0.0	0.0	10.2	2.5

NP = Non-problem gambler, LR = Low risk gambler, MR = moderate risk gambler, PG = problem gambler

Table 2. Occurrence of other harms attributable to gambling by PGSI group

	NP	LR	MR	PG	All
N	329	146	190	228	893
Has your gambling ever led to you...	% Yes	% Yes	% Yes	% Yes	% Yes
Suffering from depression	1.2	5.5	8.4	47.4	15.2
Losing a job	0.3	2.1	1.6	18.0	5.4
Separating or divorcing your partner	0.3	0.7	4.2	21.5	6.6
Losing contact with your children	0.0	1.4	3.2	13.8	4.4
Being declared bankrupt	0.0	0.7	1.6	11.9	3.5
Being evicted from your house	0.0	0.7	1.6	17.2	4.8
Borrowing without permission/illegally	0.0	0.7	1.6	13.2	3.8
Having problems with police or committing a crime	0.0	1.4	2.7	15.5	4.7
Children not attending school	0.0	2.1	0.5	12.8	3.7
Arguments within your household	0.9	2.8	18.0	44.7	16.0
Incidents of violence with family, friends, others	0.0	1.4	3.7	22.5	6.8

NP = Non-problem gambler, LR = Low risk gambler, MR = moderate risk gambler, PG = problem gambler

Table 3. Actions taken when experienced financial difficulty due to gambling

Item	All N	All Frequency	All % Yes	PG % Yes
Obtained emergency help	250	56	22.4	94.6
Obtained advance money from social security	254	43	16.9	97.7
Relied on family, relatives or friends	253	163	64.4	75.5
Humbled or begged	251	46	18.3	97.8
Did not pay, or put off, urgent bills	253	123	48.6	80.5
Went without	251	154	61.4	74.7
Got a loan	253	55	21.7	90.9
Obtained money illegally	253	38	15.0	94.7
Sold personal property and assets	244	57	23.4	86.0

PG = problem gambler

Table 4 – Reasons participants did not seek help by PGSI group

	NP	LR	MR	PG	All	
% of sample who answered	279	123	159	163		
Reason	% Yes	% Yes	% Yes	% Yes	% Yes	
Don't have a gambling problem	48.7 _a	50.7 _a	44.6 _a	44.4 _a	47.3	$\chi^2(3, N = 802) = 1.97, ns$
Didn't know where to seek help	9.80 _a	7.9 _a	16.8 _a	36.7 _b	17.1	$\chi^2(3, N = 739) = 63.60, p < 0.001, \Phi = 0.29$
Too embarrassed to seek help	5.3 _a	5.6 _a	12.0 _a	43.7 _b	15.7	$\chi^2(3, N = 751) = 137.66, p < 0.001, \Phi = 0.43$
Thought I could beat the problem on my own	7.4 _a	12.0 _{a,b}	22.6 _b	56.6 _c	23.1	$\chi^2(3, N = 746) = 158.17, p < 0.001, \Phi = 0.46$
Concerned about my confidentiality	5.3 _a	4.0 _a	6.9 _a	37.4 _b	12.9	$\chi^2(3, N = 736) = 119.67, p < 0.001, \Phi = 0.40$
Didn't want anyone to tell me to stop gambling	5.4 _a	5.6 _a	16.9 _b	43.9 _c	17.0	$\chi^2(3, N = 737) = 127.39, p < 0.001, \Phi = 0.42$
Didn't think a help service would understand my cultural background	6.1 _a	5.6 _a	9.4 _a	29.0 _b	12.0	$\chi^2(3, N = 731) = 61.00, p < 0.001, \Phi = 0.29$
The kind of help I wanted wasn't available locally	6.8 _a	4.9 _a	6.9 _a	31.3 _b	12.0	$\chi^2(3, N = 724) = 74.25, p < 0.001, \Phi = 0.32$

NP = Non-problem gambler, LR = Low risk gambler, MR = moderate risk gambler, PG = problem gambler

Note: Groups with the same subscripts do not differ significantly (Bonferroni corrected z-test). The n's for each group vary from question to question. The n's provided at the top of the table are for the answer with the least respondents. However, the proportion of respondents from each group is very similar for each question (approximately 38% NP, 17% LR, 22% MR and 23% PG).

Table 5 – Where gambling help was sought

Resource	Sought help and received it % Yes	Sought help but did not receive it % Yes	
Family, relatives or friends	68.3	63.0	$\chi^2(1, N = 68) = 0.21,$ <i>ns</i>
From a respected member of my community	42.5	60.0	$\chi^2(1, N = 65) = 1.89,$ <i>ns</i>
From a gambling counselling service	38.1	50.0	$\chi^2(1, N = 70) = 0.97,$ <i>ns</i>
From an Aboriginal community health service	37.5	48.0	$\chi^2(1, N = 65) = 0.70,$ <i>ns</i>
From Gambler's Anonymous	32.5	38.5	$\chi^2(1, N = 66) = 0.25,$ <i>ns</i>
Used written information on how to address a gambling problem	27.5	40.0	$\chi^2(1, N = 65) = 1.10,$ <i>ns</i>
Self-excluded from one or more gaming venues	26.3	39.1	$\chi^2(1, N = 61) = 1.10,$ <i>ns</i>
From the Gambling Online Counselling Service	25.0	32.0	$\chi^2(1, N = 65) = 0.38,$ <i>ns</i>
From the Gambling Help Telephone Hotline	15.0	37.5*	$\chi^2(1, N = 64) = 4.23,$ $p = 0.040, \Phi = 0.26$
Don't know where to get help	16.2	32.0	$\chi^2(1, N = 62) = 2.13,$ <i>ns</i>

Table 6 – Preferred services for Aboriginal Australians affected by gambling problems

Resource	% Yes	N
Local Aboriginal gambling counselling service	84.9	1,065
Local Aboriginal gambling liaison person	84.5	1,071
Local money management and budgeting service	67.3	992
Local non-Aboriginal gambling counselling service	43.3	937
Other	34.2	322