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Mahjong and Problem Gambling in Sydney: An Exploratory Study with Chinese Australians

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Abstract

Gambling is accepted as an integral part of Chinese cultural heritage. Epidemiological and clinical studies indicate that problem gambling rates among Chinese community members residing in Western countries are substantially higher (2.1–2.9%) compared with those reported for mainstream populations (0.5–1.7%). However, these studies failed to differentiate culturally specific forms of gambling and their association with problem gambling within Chinese samples. Thus, it is not possible to determine if, or what proportion of, Chinese problem gamblers exhibit a propensity to experience problems with culturally specific, as opposed to mainstream, forms of gambling. Mahjong, a popular game deeply entrenched in Chinese tradition, is played among peers and family members. In a recent study conducted by [Zheng, Walker, and Blaszczynski \(2008\)](#), high rates of Mahjong-associated problem gambling were found in a sample of Chinese international students attending language schools and universities in Sydney, Australia. The aim of the current study was to explore the extent of Mahjong-associated problem gambling in a broader community sample of Chinese Australians. Results showed that in a sample of 229 respondents, males and those 35 years or older were more likely to gamble on Mahjong and that 3.1% met the Canadian Problem Gambling Severity Index criteria for Mahjong problem gambling.

Introduction

Gambling has been a central part of the Chinese culture since ancient times ([Chinese Family Life Services of Metro Toronto, 1995](#)), with fate and luck believed to influence the course of history and an individual's personal life ([Pickett, 2004](#)). Some forms of gambling have become so entrenched within Chinese social life that they are considered acceptable and even healthy hobbies ([Chinese Family Life Services of Metro Toronto, 1995](#)). Almost any chance-related event can become the basis for a wager, for example, cockfights, dice, cricket fights, and

Mahjong ([Chinese Family Life Services of Metro Toronto, 1995](#)). It is claimed that Chinese are optimistic, expect to win ([GAMECS Project, 1999](#)), and are more likely to celebrate good luck by gambling. Mahjong, a popular game deeply entrenched in Chinese tradition, is played among peers and family members. Gambling, and Mahjong in particular, is popular during festivities such as Chinese New Year, weddings, birthdays, and social gatherings of family and friends: “It is common to hear the crisp sounds of Mahjong tiles clicking against one another, as they are mixed by intense players, who execute their moves without pause, and who sit for hours as the stakes rise” ([Oxford, 1993](#), p. 107).

For many, Mahjong is an opportunity for socialization, and the monetary reward for winning may be a relatively unimportant motivation or one that is absent altogether ([Leung, 2003](#); [Li, 2007](#)). However, many players use the game as a means to earn quick money, and anecdotal evidence suggests that a proportion of retrenched workers in China play to make a living. In this respect, it has been suggested that a large percentage of the Chinese population suffer poverty. A big win at gambling represents a hopeful option that may turn one's life around ([Chien & Hsu, 2006](#)). Unfortunately, players often lose life savings, with newspaper accounts describing fathers selling daughters and mothers prostituting themselves to feed their gambling habits ([Papineau, 2000](#)).

Because of the widespread acceptance and popularity of Mahjong, many Chinese people do not consider such an activity to be gambling ([McMillen, Marshall, Murphy, Lorenzen, & Waugh, 2004](#); [Scull, 2003](#)), or they tolerate it when reasonable sums of money are involved and where conducted legally and with respectable peers ([Chinese Family Life Services of Metro Toronto, 1995](#)). Under these conditions, there is the risk that early warning signs indicative of problem gambling may remain either unrecognised or overlooked until the condition becomes severe. At that stage, it is the negative consequences rather than the activity itself that becomes condemned, and the problem gambling becomes stigmatised, especially if business activities, studies, or family functioning are adversely affected ([McMillen et al., 2004](#)).

In 2008, of 20 million Australian residents, 3.4% self-described their ancestry as Chinese ([Australian Bureau of Statistics, 2009](#)). A number of Australian studies have reported high rates of problem gambling in samples of Chinese Australians. For example, [Blaszczynski, Huynh, Dumlao, and Farrell \(1998\)](#) distributed 2,000 survey questionnaires to parents through children attending a local Chinese-speaking school in Sydney and obtained a response rate of 27.4%. Using a Chinese translation of the South Oaks Gambling Screen (SOGS; [Lesieur & Blume, 1987](#)) and a cut-off score of 10, these authors found a higher prevalence rate of 2.9% for problem gambling compared with the estimate of 1.2% for the general population ([Productivity Commission, 1999](#)), with rates higher for Chinese males

(4.3%) than for females (1.6%).

[Raylu and Oei \(2004\)](#) compared Chinese and Caucasian gamblers in the Australian general community. Again, using a Chinese translation of the SOGS and a cut-off score of 10, they found a similar prevalence estimate of 2.1% for the Chinese compared with 1.3% for the Caucasian participants. From these results, the authors speculated that the Chinese community might be more at risk of developing gambling problems ([Raylu & Oei, 2004](#)).

[Scull and Woolcock \(2005\)](#) used snowball sampling to investigate gambling among Chinese, Greek, and Vietnamese community samples in Queensland. This qualitative research found that social gambling is popular in the Chinese community, often taking place among friends, in a home environment, and usually for relatively small sums of money. Chinese men, particularly married men with families, experienced more problems than women did.

These studies have not differentiated culturally specific from commercially available Western-oriented forms of gambling. Accordingly, it remains unclear whether Chinese community members have a propensity to differentially gravitate toward games such as Mahjong and whether Mahjong is associated with problem gambling. Evidence that Mahjong may be potentially associated with problem gambling is found in a study conducted by [Zheng et al. \(2008\)](#). These authors found that 2.9% of a sample of Chinese international students met the criteria for problem gambling, with male students and students from Hong Kong more likely to wager on the game.

The extent to which this finding can be generalised to the wider Chinese population remains unknown. It is possible that results from [Zheng et al.'s \(2008\)](#) study are specific to Chinese international students and that language difficulties, study pressures, and lack of adequate support structures are instrumental in leading some Chinese students to gamble in a problematic fashion. In addition, members of the general Chinese community with longer periods of residency and acculturation in Australia may have developed a preference for mainstream commercially available forms of gambling. The aim of the current study is to investigate whether results found for international students in relation to Mahjong and problem gambling are applicable to the wider Chinese community.

We hypothesised that more male than female members of the Chinese community would participate in, and meet the criteria for, problem gambling associated with Mahjong play, consistent with the literature and findings in relation to gambling, gender, and Mahjong gambling ([GAMECS Project, 1999](#); [Scull, 2003](#); [Scull & Woolcock, 2005](#); [Zheng et al., 2008](#)).

Further, given that Mahjong tends to be played by older people ([Scull, 2003](#); [Scull](#)

& Woolcock, 2005), we hypothesised that participants aged 35 years and over would be more likely to gamble on Mahjong and would be over-represented among the population of problem gamblers.

Finally, as Mahjong is essentially a Chinese gambling game, we hypothesised that participants who scored lower on an acculturation scale (representing a greater Asian or Eastern orientation) would be more likely to gamble on Mahjong than would those with a more Western orientation.

Method

Participants

The current study included a convenience sample of 229 (90 males and 139 females) members of the Sydney Chinese community. Recruitment of participants was achieved by using a snowball sampling technique to access the community through the use of word of mouth by family and friends of the researcher.

Of the total sample, 127 (55.5%) respondents were aged 24 years or less, 36 (15.7%) were between 25 and 34 years, 45 (19.7%) were between 35 and 55 years, and 21 (9.2%) over 55 years. A total of 140 participants (61.1%) were single, 77 (33.6%) were married, and the rest ($n = 12$) classified as “other.” The mean duration of residency in Australia was 12.9 years ($SD = 9.15$), with 91 (39.7%) participants being born in the People's Republic of China; 44 (19.2%) in Hong Kong; 48 (21%) in Australia; and 46 (20.1%) in Singapore, Taiwan, Malaysia, or Indonesia. Seventy-six (33.2%) participants had obtained secondary school education, while 128 (55.9%) had tertiary undergraduate and 25 (10.9%) had tertiary postgraduate qualifications.

Measures

Participants completed questionnaires designed to elicit socio-gambling demographic details, level of acculturation, and the presence and severity of problem gambling behaviours.

Socio-gambling demographic questionnaire.

This self-report questionnaire was designed to elicit data relating to gender, country or place of origin, length of residency, marital status, education, history of Mahjong play and other forms of gambling, and general attitudes towards gambling treatment services (for example, best options for problem resolution and utilization or appropriateness of mainstream versus culturally-specific services).

The Canadian Problem Gambling Index – Problem Gambling Severity Index (CPGI-PGSI; Ferris & Wynne, 2001).

The Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) was used to assess problem gambling status. The screening instrument consists of five items that address problem gambling behaviour and four items on the consequences of gambling ([Ferris & Wynne, 2001](#)). Each item is scored on a 4-point Likert scale from 0 (*never*) to 3 (*almost always*); a score of 8 or more across the nine items defines the category of “problem gambling.” The CPGI has an internal consistency of .84 and a 4-week test-retest correlation of .78 ([Neal, Delfabbro, & O’Neil, 2005](#)). [McMillen and Wenzel \(2005\)](#) found that the CPGI demonstrated better measurement properties than the SOGS and the Victorian Gambling Screen.

The Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; [Suinn, Khoo, & Ahuna, 1995](#)).

The SL-ASIA was used to assess cognitive, behavioural, and attitudinal aspects of student acculturation and to explore the relationship between acculturation and participation in Mahjong gambling. The SL-ASIA is composed of 21 multiple-choice questions covering language (4 questions), identity (4 questions), friendship (4 questions), behaviour (5 questions), generation or geographic history (3 questions), and attitudes (1 question). A low score on the scale is reflective of a high Asian cultural orientation or identification, whereas high scores indicate a more Western identification ([Suinn et al., 1995](#)). A reliability alpha coefficient of .88 was reported for the scale by the original authors.

Procedures

Ethics approval for the study was obtained from the University of Sydney's Human Research Ethics Committee. Participants recruited by the researcher (family members and friends of the researcher) were given a Participant Information Sheet explaining the nature and purpose of the study. Although all distributed questionnaires were completed and returned, there were no tabulations of the number of people who were approached but who refused to participate, thereby precluding an estimate of the overall response rate. The current sample therefore constitutes a convenience sample that is not necessarily representative of the broader Chinese community.

Participants were requested to complete a battery of questionnaires in English and Chinese, thereby giving participants the option of answering in either language. Participants completed the questionnaires at a nominated place of convenience, which typically took 15 to 20 min to complete and were either returned immediately to the researcher or later by mail. Participants were reimbursed a token amount of \$5 for their involvement in the research.

Results

Mahjong Problem Gambling

Only participants who had gambled money on Mahjong were requested to complete the PGSI of the CPGI, specifically in relation to their Mahjong gambling habits. Results indicated a high rate of Mahjong problem gambling in the current sample of Chinese community members, with 3.1% ($n = 7$) meeting CPGI criteria. Of the remainder, 3.5% ($n = 8$) met the criteria for moderate-risk gambling and 12.2% 28 ($n = 28$) for low-risk gambling.

Overall, gender was a significant predictor of scores on the CPGI (Mahjong problem gambling), with males ($b = 1.011$, $\beta = .205$, $p < .05$) scoring higher on the scale. Data showed that significantly more Chinese males were identified as Mahjong problem gamblers (6.7%, $n = 6/90$) compared with females (0.7%, $n = 1/139$, Pearson chi-square = 11.28, $p = .02$).

Mahjong and Other Gambling Among Sydney Chinese Australians

Participants were categorised into one of four groups in relation to Mahjong and gambling. Mahjong gamblers were those who had played Mahjong as a gambling game at least once in the past 12 months; social players had played Mahjong in the last 12 months, but not for money; other gamblers included those who had not played Mahjong in the last 12 months but had participated in other forms of gambling; and non-gamblers had not gambled with money in any way in the past 12 months and also had not played Mahjong as a recreational game over the same period. Of the total sample, 79.5% ($n = 182/229$) had a lifetime history of playing Mahjong, 24.5% ($n = 56/229$) played socially in the past 12 months, and 33.2% ($n = 76/229$) gambled on Mahjong in the past 12 months. [Table 1](#) shows the classification of participants.

Overall, participants who engaged in other forms of gambling reported a main preference for lotteries ($n = 69$, 30.1%), followed by poker machines ($n = 59$, 25.8%), casino games ($n = 42$, 18.3%), and private card games ($n = 32$, 14%). Few wagered on horse or dog racing ($n = 16$, 7%) and sports betting ($n = 9$, 3.9%).

Age and Gender

As shown in [Table 2](#), logistic regression analyses revealed that male participants were significantly more likely (2.2 times) to gamble on Mahjong than their female counterparts, with participants aged 35 and over also significantly (7 times) more likely to wager on Mahjong compared with those aged 34 and under.

With “involvement in other forms of gambling” as the dependent variable, logistic regression revealed no significant gender or age differences. Closer examination of individual types of gambling with logistic regression revealed no significant gender or age differences in participation for electronic gaming machines, casino games,

and sports betting. However, significant gender differences were found for participation in private card games and horse or dog racing, with males 4 times more likely than females to wager on private card games (Wald = 10.877, $p < .05$, $\text{Exp}(B) = 4.016$) and 3.2 times more likely to bet on dogs or horses (Wald = 3.935, $p < .05$, $\text{Exp}(B) = 3.151$).

Characteristics Associated With Mahjong play

Forty-five percent of the sample ($n = 103/229$) identified family members as the source from which Mahjong rules were acquired, with 28.4% ($n = 65$) learning the game from friends. The mean age at commencement of play was 15.8 years ($SD = 7.2$). Linear regression analysis revealed that male Mahjong players were on average 2.3 years younger than female players at the age of commencement ($b = -2.323$, $\beta = -.159$, $p < .05$; males = 14.3 years, $SD = 4.7$ years; females = 16.6 years, $SD = 8.4$ years).

Level of Acculturation as a Predictor

Using raw scores from the SL-ASIA as the dependent variable, results indicate community members who favour mainstream mental health services (mean score = 58.93, $SD = 11.97$) over cultural-specific (Chinese) facilities (mean score = 49.16, $SD = 12.67$) were significantly more Western in their level of acculturation ($b = 4.568$, $\beta = .167$, $p < .001$). Age was negatively correlated at a significant level with acculturation ($r = -.44$, $p < .001$), but neither age nor acculturation was predictive of problem gambling (Table 3). No significant differences were found in the level of acculturation of Mahjong gamblers compared with Mahjong social players.

Counselling Preferences in Relation to Problem Gambling

Overall, more than half of the participants reported a preference to resolve gambling problems through professional counselling ($n = 135$, 59%), with almost two thirds ($n = 144$, 62.9%) preferring Chinese services as opposed to mainstream mental health facilities. Of those preferring Chinese services, 59% were female ($n = 85$) and 50.7% ($n = 73$) were under the age of 24. Almost half ($n = 114$, 49.8%) of the current sample considers gambling to be a major social issue in the Chinese community.

Discussion

The current study investigated the prevalence of Mahjong gambling in a convenience sample and explored its association with problem gambling by gender, age, and acculturation. The results indicate that Mahjong gambling occurs frequently in the general Chinese community, with a minority suffering from

Mahjong problem gambling. This is consistent with the findings of [Zheng et al. \(2008\)](#) in which Chinese international students were identified as Mahjong problem gamblers. Thus, results lend support to the hypothesis that Mahjong is not merely a harmless cultural-specific game played during social gatherings of family and friends, but is also a form of gambling that carries with it a range of negative consequences for players who over-commit their resources.

As predicted, male participants in the sample were more likely to wager on Mahjong than were their female counterparts. This is consistent with the gender hypothesis, which points to gambling as a male-dominated activity ([Aasved, 2003](#)). The result may be explained in part by the fact that male Mahjong players in the current sample were on average 2.3 years younger than female players at the age of commencement. This supports the age of initiation hypothesis ([Aasved, 2003](#)), which states that early exposure to gambling will increase the likelihood of continued gambling and problem gambling. Indeed, there was a large discrepancy in the problem gambling rates between Chinese males and females in the sample. The likelihood of a higher disposable income for the male population may also encourage spending on gambling. The fact that Chinese gamblers prefer games of skill ([Oxfeld, 1993](#)) may direct their attention to casino table games, such as blackjack and poker, and to cultural-specific games, such as Mahjong, which gamblers believe they have intimate knowledge of and hence a greater chance of winning ([GAMECS Project, 1999](#)). Furthermore, greater gambling involvement by Chinese males could be due to the belief that they gamble because they have the right to do so. Typically, as breadwinners of the family, Chinese men are financially accountable only to themselves. Hence, no family member has the right to question how they spend their money. They are inclined to give up only a portion of their income to their spouse for groceries and utilities, with the remaining amount under their own control. As observed by a participant in [Scull & Woolcock's 2005](#) study: "It is not the wife's business to know what happens to the rest." In dealing with the family member in financial debt, the Chinese emphasis on the welfare and harmony of the family ([Slote, 1998](#)) leads to the practice of the family unit repaying gambling debts of individuals ([Chan, Mok & Tang, 2008](#)). This may be further vindication for gamblers to carry on with their behaviour.

Participants aged 35 and over are significantly more likely to wager on Mahjong than those aged 34 and under. This finding suggests that Mahjong gambling may be preferred by the older generation, as younger Chinese may be attracted to the immediate rewards of gambling on electronic gaming machines or the higher social status associated with casino gambling. Older Chinese may also prefer to gamble within the safe confines of their homes, with a set group of gamblers known to them, and on a game that they feel comfortable with. Even though Mahjong may not be considered a serious form of gambling by the general community, its presence in the Chinese community should not be underestimated.

Chinese are also keen on other types of gambling. Participants indulged in gambling on electronic gaming machines, casino games, private card games, racing, sports betting, and/or the lotteries. Chinese males were significantly more likely to be involved in private card games and horse or dog racing than were their female counterparts. Interestingly, similar to Mahjong, both card games and horse or dog racing may involve elements of skill, including card counting and bluffing while playing cards and analysis of form guides and weather conditions before placing bets on horse or dog races. It seems that Chinese men prefer types of gambling that allow for elements of control, with the gambler having the possibility of influencing the end result. This illusion of control may help to explain persistent gambling despite heavy losses.

Many Chinese recognise problem gambling as an issue within the community. Problem gambling brings shame and stigma, putting into question parenting skills and even genetic purity of a person's ancestry (Scully, 2003). Professional counselling is not regarded as a viable solution for sufferers of mental health problems in the Chinese community. Talking to a stranger about one's personal problems is actively discouraged. All family business should be kept within the confines of the immediate family (McMillen et al., 2004). Hence, it is interesting that over half of the current sample prefer resolving problem gambling (should it arise) through professional counselling. It may be that raising children within a Western society has encouraged parents to educate them to voice their concerns and seek help from trained professionals. Alternatively, integration into the mainstream community may well have revealed the benefits of effective counselling. However, it is also possible that responses may be biased as a reflection of snowball sampling. Almost two thirds ($n = 144$, 62.9%) of participants prefer Chinese counselling services as opposed to mainstream facilities, perhaps because of an absence of trust and fear of the possible connection between mainstream bodies and government departments such as Centrelink (social security). Those who favoured mainstream services over Chinese services were found to be significantly more Western in acculturation. It is likely that, for some, the language barrier and the lack of acculturation may greatly reduce the effectiveness of the counselling experience. Even with interpreters, some expressions and ideas may be lost in translation, and a counsellor who speaks the language and understands the cultural etiquettes may be the only way these problems can be avoided.

The limitation of the current study is the non-random nature of the sample. Even though results indicate substantial Mahjong gambling involvement and relatively high rates of Mahjong problem gambling in the Chinese community in Sydney, snowball sampling may have biased the sample in favour of Mahjong players. Current results showed that age and acculturation are not significantly related to problem gambling. Perhaps only a longitudinal study can disentangle age from acculturation and provide meaningful insight into their relationship with problem

gambling. The current study did not assess the role of acculturation stress in Chinese immigrants and its possible role in instigating and maintaining Mahjong or other types of gambling problems. This would be an interesting area for future research. Further, the fact that the current sample is skewed towards younger Chinese may have rendered comparisons in terms of acculturation less accurate. An investigation into the role of Chinese culture on gambling may prove to be more fruitful with a larger and more age representative sample. Nevertheless, this study is important in that it builds on the findings obtained from the Chinese international students in [Zheng, Walker, and Blaszczynski \(2008\)](#), suggesting that there is a need to further explore Mahjong gambling and its association with problem gambling within a representative sample of the wider Chinese community.

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Tables

Table 1

Classification of participants by Mahjong play

Category	Frequency	Percentage
Mahjong gamblers	76	33.2
Mahjong social players	56	24.5
Other gamblers	41	17.8
Non-gamblers	56	24.5
Total	229	100

Table 2

Logistic regression with money involvement (yes/no) in Mahjong as the dependent variable

Variable	Level	<i>n</i> (Gamblers)	%	Wald	Significance	Exp(B)
Gender	Female	38/139	27	5.565	.017	2.155
	Male	38/90	42			
Age (years)	34 and under	36/163	22	11.876	.001	7.028
	35 and over	40/66	61			

Table 3

Multivariate model of acculturation and age (independent variables) and CPGI score (problem gambling) as the dependent variable

Variable	Coefficient	Standard error	95% CI	<i>t</i> Statistic	<i>p</i> -Value
Acculturation	-0.69	0.38	(-1.44, 0.06)	-1.79	.10
Age	-1.11	0.98	(-3.04, 0.82)	-1.13	.26

Note. CI = confidence interval; CPGI = Canadian Problem Gambling Index.

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