

**The Clinical and Social Construction of
Pathological Gamblers in Macau**

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M.A.R. and M. Sc.

Submitted in Fulfillment of the
Requirements for the degree of
Doctor of Philosophy

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Faculty of Arts, Education and
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Melbourne
Australia

2011

Abstract

The present study sought to understand the social and clinical characteristics of a group of pathological gamblers in Macau known as Paichai (扒仔). This study recruited participants from the casinos in Macau. Fifteen participants, all active gamblers and ranging in age from 24 to 53 years, were recruited and were repeatedly observed and interviewed. After initial screening, there were four non-Paichais, which were taken as a comparative sample. Further, the participants were assessed by the Problem Gambling Severity Index (PGSI) of the Canada Problem Gambling Index (CPGI) (Ferris & Wynne, 2001). There were a number of significant findings in this investigation. Firstly, the Paichais could be classified as antisocial-impulsive gamblers according to Blaszczynski and Nower's (2002) pathways model of problem and pathological gambling. The development of pathological gambling among the participants was found to follow a linear model with a strong stage-based trajectory. In the first stage, the participants often recalled an early involvement of gambling during childhood. The majority of them reported coming from a family environment which encouraged gambling. They had a history of conduct disorder prior to the acquisition of their gambling habits. With increased involvement in gambling, these gamblers entered stage two where the participants often reported more frequent involvement of casino gambling. With the increase of time in the casino, the Paichais entered stage three of their development process. In this stage, the gamblers demonstrated significant detachment from the outside world as they spent most of their waking hours in the casinos. The current study attempted to understand the development of pathological gambling amongst these individuals from the particular social and cultural perspectives of Macau.

Acknowledgement

I would like to thank my supervisor, Dr. Keis Ohtsuka, for his patience and expertise in helping me through the project. Also, I would thank my wife for her support during my studies.

Student Declaration

“I, Chi Chuen Chan, declare that the PhD thesis entitled “The Clinical and Social Construction of Pathological Gamblers in Macau” is no more than 100,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.”



Signature:

11/2/11.

Date:

List of Publications and Awards

Chan, C. C., & Ohtsuka, K. (2010). All for the winner: An analysis of the characterization of male gamblers in Hong Kong movies with gambling theme. *International Journal of Mental Health and Addiction*.doi:10.1007/s11469-010-9274-5

Ohtsuka, K., & Chan, C. C. (2010).Donning red underwear to play mahjong: Superstitious beliefs and problem gambling among Chinese mahjong players in Macau. *Gambling Research*, 22(3), 18-33.

Ohtsuka, K., & Chan, C. C. (2009). Desperate housewives: An analysis of the characterization of female gamblers portrayed in gambling movies in Hong Kong. *International Journal of Mental Health and Addiction*, 7, 229-238. doi:10.1007/s11469-010-9274-5

Conference Publications

Chan, C. C., & Ohtsuka, K. (2010). The clinical and social construction of Chinese pathological gamblers in Macau. In *Conference Proceedings of the International Conference on Gaming Industry and Public Welfare 2010 8-11 November 2010, Beijing, China* (pp. 254- 259).

Chan, C. C., & Ohtsuka, K. (2009). Superstition and problem gambling among mahjong players in Macau and Hong Kong. In *Conference Proceedings of the International Conference on Gaming Industry and Public Welfare 2009 1-3 December 2009, Macau, China* (pp. 211- 229).

International Conference Papers

Chan, C. C., & Ohtsuka, K. (2010). *The clinical and social construction of pathological gamblers in Macau*. Paper presented at the 8th European Conference on Gambling Studies and Policy Issues, Vienna, Austria.

- Chan, C. C., & Ohtsuka, K. (2010). *A study on the typology of Chinese gamblers in Hong Kong*. Paper presented at the Diversity in Health 2010 Conference, Melbourne, Australia.
- Chan, C.C., & Ohtsuka, K. (2009). *Problem gamblers in Macau: A cultural interpretation*. Paper presented at the 19th National Association for Gambling Studies Annual Conference, Canberra, ACT.
- Chan. C. C., & Ohtsuka, K. (2009). *Superstitions among Mahjong Players in Macau: A cultural perspective on a popular Chinese gambling game played at home*. Paper presented at the 14th International Conference on Gambling and Risk-Taking, Lake Tahoe, Nevada, USA.
- Chan. C. C., & Ohtsuka, K. (2009). *Pai chai: Die-hard “resident” casino gamblers in Macau*. Paper presented at the 14th International Conference on Gambling and Risk-Taking, Lake Tahoe, Nevada, USA.
- Chan. C.C., Ohtsuka, K., & Chan, Y. T. (2008). *Superstitions among mahjong players in Hong Kong: A cultural perspective*. Paper presented at the 18th National Association for Gambling Studies Annual Conference, Adelaide, South Australia.
- Chan, C. C., & Ohtsuka, K. (2008). *Heroine in the making: An understanding of the personality of female gamblers in gambling movies in Hong Kong*. Paper presented at the 2008 International Gambling Conference: Looking Forward: New Directions in Research and Minimising Public Harm, 23 February, Auckland, New Zealand.
- Chan, C. C., & Ohtsuka, K. (2007). *Gambling movies in Hong Kong: Understanding of gambling culture from a psychological perspective*. Paper presented at the 17th National Association for Gambling Studies Conference, Cairns, Australia.

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Chapter 1

Introduction

Studies of gambling have received much attention in Hong Kong and Macau in recent years. Investigations usually fall into two categories: prevalence studies based on telephone interviews (Fong & Ozorio, 2005, The Hong Kong Polytechnic University, 2002, The University of Hong Kong, 2005) and qualitative studies focused on a relatively small number of gamblers (e.g., Lam, 2004). In the last decade, two major region-wide prevalence studies have been carried out by research groups in the Hong Kong Polytechnic University (The Hong Kong Polytechnic University, 2002) and the University of Hong Kong (The University of Hong Kong, 2005). Both research projects were funded by the Hong Kong Special Administrative Region of the People's Republic of China. In the first government-funded study by the Hong Kong Polytechnic University (2002), a random sample of 2,004 participants was contacted by telephone interviewers. The interviews consisted of questions on demographic details and a Chinese adapted version of the Diagnostic and Statistical Manual, fourth edition (DSM-IV) (American Psychiatric Association, 1994) was administered. In these studies, prevalence rates for pathological/problem gambling were measured according to the criteria of the DSM-IV. These investigations employed questionnaires that were specially designed to tap into the factors of pathological gambling. These factors included the respondents' life histories, their involvement in gambling, and their lifestyle patterns. This pioneer study found that 4.0 per cent of the respondents were classified as problem gamblers and 1.8 percent as pathological gamblers. In the previous 12 months, 78 per cent of the respondents participated in gambling activities. More men than women participated in the three most popular gambling forms: Mark Six (a type of lottery game), social gambling (mainly the

game of mahjong played at home) and horse racing.

Further, the findings of the Hong Kong Polytechnic University study demonstrate that male gamblers with less than nine years of formal education and with a personal monthly income of HK\$10,000 or above (roughly equivalent to AUD 1,264 on the exchange rate of AUD 1= HKD 7.91 as at 30 December 2010) are more vulnerable to problem and pathological gambling. Male gamblers favoured games such as horse racing and soccer pools.

A follow-up study in 2005 produced similar findings (The University of Hong Kong, 2005). This research project consisted of three parts: a region-wide telephone survey of a representative sample of 2093 people aged 15 to 64 in Hong Kong, a youth survey through self-administered questionnaires with a representative sample of 2095 students, and a series of focus group interviews with youth and the families of gamblers. The results showed that 81.1% of the respondents (cf, 78% in 2001) participated in gambling activities in the previous twelve months. Overall participation in illegal gambling was 2.1% (decreased from 4.2% in 2001) and the researchers attributed this decrease to the legalisation of soccer betting in 2003. In 2005, participation in horse-race betting with the Hong Kong Jockey Club (HKJC) was 25.2% (cf, 30.4% in 2001). The participation rate in football betting with HKJC in the previous 12 months was 6.3%. The drop in horse race betting, according to the authors, might also be the consequence of the legalisation of football betting in 2003 because some gamblers placed bets on football pools instead of horses. The prevalence rate for probable problem gamblers was 3.1% (dropped from 4% in 2001) and that of pathological gamblers was 2.2% (increased from 1.8% in 2001).

Though these were ground-breaking studies, a methodological problem in these

investigations is the issue of validity. Most of the investigations collected data from brief telephone or face to face interviews. However, ethnic Chinese tend to be reserved in disclosing information to others, especially over the telephone. They would, thus, be less than forthcoming in disclosing sensitive information in response to questions regarding their personal life and gambling.

This issue has been a problem in the majority of research studies in Hong Kong. *The Breakthrough* is a Christian group offering community services for young people in Hong Kong, including counselling for gamblers. In the last decade, *the Breakthrough* launched a number of small scale studies on gambling and youth and families issues (*Breakthrough research projects*, 2008). Most of the research projects employed telephone or face-to face interviews. Very often, the interviews were brief, less than 20 minutes. The participants of these studies were obtained by convenience samples. Further, the assessment tools were often brief questionnaires that were constructed out of face validity only. A good example can be found in a summary report on the impact of gambling on the families. In this project, the researchers failed to employ an objective means of measurement on terms such as subjective self worth, life goals, confidence in life, family communication, family conflict, and family cohesion. The participants were asked to describe themselves using categorical ratings such as “very weak”, “weak”, “comparatively strong,” or “strong.” There were no definitive or descriptive criteria for each measure. As the respondents might have different ideas or qualifications on these criteria, the gathered data lacks construct validity. Further, the researchers quantified these categorical ratings into statistical analysis and the regression analysis was applied using these data. Consequently, the resulting analysis and conclusion might be biased.

Secondly, the researchers in the two major prevalence studies (The Hong Kong

Polytechnic University, 2002; The University of Hong Kong, 2005) focused more on the quantitative aspects of data analysis rather than the qualitative in-depth appraisal of the responses. Both studies were based on a random sampling of a region-wide population. Research workers were mostly part-time workers who read the questions to the subjects over the telephone and record their responses. The refusal or failure rate for response was high. For example, in the 2005 study it was stated that a total of 17,654 telephone numbers were attempted. The number of successfully completed interviews was 2093. There are also 709 refusal cases (4%) and 1 incomplete interview (<0.1%). The refusal rate was high: 3656 respondents (20.7%) were unavailable for interviews. An additional 291 calls (1.65%) received the busy tone or 3818 calls (21.62%) went unanswered. The researchers reported the overall response rate to be 74.7%, as all unanswered and unavailable calls were excluded. This might not be statistically correct as these calls might well be those who refused to respond. If all these calls were included, the actual response rate could be only 11.8% of the total attempted calls.

Further, the Chinese YMCA has launched a series of studies of youth gambling in 2003 and 2004 ("Research of Hong Kong Teenagers Gambling," 2004). A total of 1,122 youths were recruited in a questionnaire study. Thirty-two per cent of the participants had participated in gambling in the previous three months. The mean age of first gambling exposure was 11.8 years old. Very often, the youths started gambling at home. Then, as they grew up, they gambled with peers. Using the DSM-IV (American Psychiatric Association, 1994) criteria, the researchers reported that prevalence rates for probable problem gambling and probable pathological gambling were both at 3.4%. This figure might be an inflated estimate as the study used a convenience sampling method. Also, this research project had a fundamental theoretical problem in that it divided the

teenage gamblers into three types: namely (a) impulsive type, (b) emotional type, and (c) naïve type. The authors did not elaborate on the theoretical basis and rationale for this classification.

In addition, these studies did not present a clear portrayal of the pathological gamblers in detail. In all these investigations, the interviews were brief and focused mostly on the demographic data. Unlike in-depth qualitative interview methods, there was little opportunity for the respondents to freely express their views on gambling. Very often, the investigators focused more to obtain reasonably big samples than on obtaining qualitative information on the details of the data. These investigations, therefore, serve only to present a general vignette of pathological gambling in Macau rather than illustrating the trajectory and the subjective world which leads gamblers to gamble excessively.

In-depth qualitative studies of Chinese gamblers are very few in Hong Kong and Macau. Cheng (2006) did her master's thesis in social work by interviewing eight female gamblers. Her study found that female pathological gamblers started gambling later than men, gambled out of boredom and depression, suffered emotional and financial difficulties from problem gambling and needed to seek help from professionals. One interesting finding was that women gamblers gambled with less money and owed less money when compared to men. Many participants would not seek help unless the treatment was insisted on or even forced on them by significant others. Factors contributing to successful rehabilitation were positive peer interaction, improvement in psychological health and supportive counselling from others. One problem with this paper, however, was the lack of in-depth exploration of the personality of the participants. The participants were interviewed with a standard set of questionnaires, which included assessment of demographic data and questions regarding the subject's gambling behaviour

and the consequences of gambling. Although demographic data from the participants was analysed, the developmental process of gambling and the subjective world-views of the participants were not included in this report

Lam (2004) studied 21 casino gamblers as a part of her postgraduate studies. One of her major findings was that almost all respondents ($N=19$) had experienced at least one big win in the early stage of their gambling career. Those who never experienced winning reported that after seeing other people winning a large sum of money, they fantasised about winning a jackpot one day. Thus, an early win, either by direct personal experience or by observational learning, may play a significant role in the development of pathological casino gambling. The majority of the gamblers had little motivation to abstain from gambling as they indicated that they would resume gambling if they had money. This study, one of the few that investigated casino gamblers, is not without a few methodological inadequacies. The sample was not a representative of problem gamblers as 15 out of 21 participants were ex-convicts. (They were recruited from counselling agencies for released prisoners.) The data relied mainly on the interviewer's recollections. Perhaps, the most problematic aspect of this study was that all the data was collected retrospectively. Another major problem is the unsubstantiated and perhaps faulty assertion of a connection between gambling and crime. Lam writes: "Considering the relationship between gambling and criminal behaviour, it is initially delineated that pathological gambling may be one of the important criminogenic factors of property crime." (p. 94). This research project, like others performed in Hong Kong, does not investigate the personality dynamics and the subjective world of the gamblers. The study takes more of a journalistic approach that focuses on the phenomenological details. Qualitative accounts of such factors as gamblers' feelings about gambling, their relationships with

significant others, their motivation in life and the primary reasons for their gambling are lacking. The fundamental problem in this study is that the author interpreted the correlation between problem gambling and crime statistics and speculated on the causal relationship between gambling and crimes. Obviously, it is not clear whether problem gambling had put the participants at risk of committing a property offence or whether problem gambling was one of the problematic behaviours that individuals committing such offenses exhibited.

Lastly, most of the qualitative research reports in Hong Kong failed to observe the five basic requirements of qualitative research: (a) data collection by means of interviews, (b) delineating units of meaning, (c) clustering of units to form themes, (d) summarizing each interview, and (e) extracting general and unique themes from all interviews and making a summarizing conclusion with reference to pertinent theoretical foundations (e.g., Hing & Breen, 2006). Thus, the internal validity of these studies was in doubt.

In Macau, there have been only a few prevalence studies in the last decade, the most recent being Fong and Ozorio (2005). The researchers reported that the prevalence rate of problem gamblers in Macau was 4.3 per cent. The most popular games people engaged in were social games (e.g., mahjong), Mark Six, sports betting and casino games. Also, this study utilized the data from Macau Industrial Evangelical Services, which has offered free counselling services to gamblers since 2004. From 2004 to 2006, over a thousand cases have been received through telephone enquiries. There were a total of 108 treated cases. In this study, all participants were administered the South Oaks Gambling Screen (SOGS) (Leiseur & Blume, 1987). Any respondent with a score of over 5 was considered to be a pathological gambler. The findings were that all participants scored

over 5, with the mean SOGS scores of 13. Over 90 per cent of the cases demonstrated the following symptoms: chasing, gambling in excess of budget. Borrowing from family members, selling properties and obtaining loans from others, including loan sharks and banks were their main sources of credit.

However, these studies did not include the most severe type of pathological gamblers – those who do not maintain a stable home and hence do not have a home telephone. These individuals usually do not have stable employment and they might stay at the casinos in Macau for an extended period of time every day. Chan and Ohtsuka (2009a) have reported some of these cases, who left their families in Hong Kong and found themselves on the streets in Macau.

To date, there has been no qualitative study in Hong Kong and Macau that has sought to investigate the gamblers' personality and their subjective world. All of the gambling studies in the local context focus either on the demographics or prevalence of gambling. A small number of qualitative studies (e.g., Cheng, 2006, Lam, 2005) were based on brief interviews with a social work or sociological perspective. These investigations lack in-depth understanding of the gamblers' personality characteristics, their development history and their subjective feelings and instead focus mainly on the phenomenology of their gambling. These missing perspectives nonetheless are important elements for the designing of effective treatment programs.

Statement of the problem

Borrell (2008) argues that a discourse analysis on research articles, gaming industry reports and academic conference addresses can help understand the prevailing social attitude towards gambling. In a meticulous thematic analysis of the gambling

literature, Borrell suggests that the dominant and prevailing gaming discourse is that gaming industries often portray themselves as entrepreneurs delivering profit to shareholders while serving the gamblers as customers and enriching their lives with gaming products or entertainment. The providers of gaming services often subscribe to views associated with a civil libertarian position, defending their freedom to present a range of choices of products to informed customers. Individual gamblers in this view are voluntary free agents who are exercising free will. Problem gamblers, therefore, are a minority and are pathologically ill and morally aberrant. According to this perspective, the problem gamblers themselves should be blamed for their problems. The gaming industry and the government should not be responsible for individual problems.

If a similar discourse analysis on the general public attitude is applied to the research reports and public discourse on gambling in Hong Kong, the story would be totally different. The majority of local researchers under review (e.g., Hong Kong Polytechnic University, 2002) tend to endorse a negative view of gambling even before they began the data collection process. For example, in the series of studies reported by YMCA ("Research of Hong Kong Teenagers Gambling," 2004), an evangelical social service agency, the researchers apparently had the conviction that gambling is inherently evil. Almost all these studies criticized the government and the Hong Kong Jockey Club (the sole provider of gaming services in Hong Kong) for problem gambling. According to the critical views of these investigators, problem gambling is a product of failed government policies and gaming service providers.

The existing gambling literature in Hong Kong and Macau tends to treat gamblers, especially young gamblers, as a naïve and innocent homogeneous group, who fall prey to the temptations of wrongful desires of greed and impulsive behaviour. They, thus, fail to

respect and appreciate the personal freedom of choices in gambling as Reith (2008) suggests. Consequently, they neglect the subjective feelings, personal choices and simply ignore the existence of the phenomenological world of the gamblers. These elements are important as they would help the psychologists to understand the aetiology of their gambling problems.

One example of the lack of in-depth exploration of the psychodynamics of gamblers is found in So and Cheang (2008). The study is entitled “An in-depth analysis of problem gamblers in Macau.” The methodology consisted of interviewing the subjects on a preset interview protocol, which was structured on a closed-end and multiple choice questionnaire. For instance, the interviewer questioned the subjects regarding their psychological state. They were asked whether they had depression, insomnia, psychological stress, suicidal ideation and suicidal attempts. Answers to these forced-choice questions were quantified into percentages for statistical analysis. The emphasis was on classification rather than establishing the aetiology of individual problem gambling and subsequent trajectory. Ideally speaking, psychological testing should include a clinical interview and psychological tests. Multiple choice questionnaires might not address the aetiology and the personal subjective world of problem gamblers’ and individual case development.

In the literature, there are a number of terms that describe phenomena of problem gambling: compulsive, pathological, disordered, Level 2 and Level 3 gambling, neurotic, at-risk, problem, excessive and addicted (National Research Council. 1999; Petry, 2004; Schaffer, Hall & Bilt, 1997). All these terms, albeit conceptually grounded in a variety of theoretical basis, attempt to distinguish behaviour that represents controlled or social gambling and behaviour that causes significant harm to the gamblers and his or her

significant others. A wider and generally accepted view has been proposed that “problem gambling” should be defined as the more severe state of excessive gambling based on a continuum of gambling-related harm from non-gambler through at-risk gambler to problem gambler (Ferris & Wynne, 2001). In Australia, the standard definition of problem gambling describes problem gambling as “characterized by those who demonstrate significant difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, others or for the community” (Neal, Delfabbro & O’Neal, 2005).

There have been few studies that attempt to classify or make a psychological typology of Chinese casino gamblers. Although all gamblers are different, a typology of gamblers based on similarities is pertinent in the design of effective treatment for these individuals. Blaszczynski and Nower’s (2002) pathways model of problem and pathological gambling seems promising in that it recognises the diversity within the problem gambling population and addresses the development process of problem and pathological gambling, especially within the Australian population. One basic premise of this model is that the authors depict the pathway to pathological gambling as a linear model with three different groups of gamblers, each with different behavioural outcomes and treatment needs. The accessibility to gambling is crucial in the development of gambling. All three groups of gamblers either come from gambling families or grow up in a family or peer environment that condones or even encourage gambling. Usually, their first encounters with gambling are positive: an early win is often reported from these gamblers. There are common influences that affect all problem gamblers, such as availability and access, classical and operant conditioning effects in the maintenance of gambling, arousal factors and biased cognitive thinking patterns. There are three groups of pathological gamblers

which differ in their personality, their emotional states and coping styles. The first group is behaviourally-conditioned gamblers, who were normal and functioning well prior to the gambling experience. This group of gamblers may have had a stable career prior to gambling. They are not pathologically disturbed before they start to gamble excessively, but with repeated exposure to gambling activities, symptoms of pathological gambling surface. These symptoms include a preoccupation with gambling, depression, chasing losses, anxiety, insomnia and even substance dependency. Their problems are the consequences of their excessive gambling behaviour. These gamblers are often motivated to seek psychological treatment.

In contrast, the second group is composed of gamblers who have significant emotional problems prior to their gambling experience. This group of emotionally vulnerable gamblers tends to employ gambling as a means of modifying mood states. Jacobs (1986) has proposed a general theory of addiction. He argues that all types of addiction serve to regulate emotions. According to this perspective, problem gamblers gamble in order to seek an emotional escape from their problems. Gamblers from this group often report having depression, anxiety, substance abuse and deficits in coping with stress prior to their gambling. Gambling for these individuals is a means for obtaining emotional relief – a psychological oasis – through dissociation and mood modification. As such, gambling is a defense mechanism for these individuals. These high levels of pre-morbid psychopathology make them more resistant to treatment.

The third group is made up by individuals whom the researchers define as antisocial-impulsivists. This group of individuals might have inborn biological deficiencies, either neurological or neurochemical, to control impulses, though they also possess similar psychosocial vulnerabilities as the emotionally vulnerable gamblers

(Pathway Group 2). These individuals are characterized by antisocial personality disorders and impulsivity and/or attention-deficit disorders (Blaszczynski & McConaghy, 1994; Blaszczynski & Steel, 1998). The inability to control impulses can also be a consequence of learned behavioural patterns. These individuals may learn to seek immediate gratification of wants and desires during development. Gamblers of this type have a propensity to seek out constant stimulation from their environment. In addition to their gambling they tend to be clinically impulsive and display a broad range of problems, which might include substance abuse, poor relationship skills, a propensity to commit criminal acts, and a family history of antisocial behaviour. Gambling for this group usually begins at an early age, has a rapid onset and occurs in binges. Most gamblers from this group can be described as irresponsible, cunning, deceitful and manipulative of others (Blaszczynski, Steel & Farrel, 1997). Usually, these individuals are not amenable to treatment (Blaszczynski, personal communication, May 27th, 2009). They have poor compliance rates. And some do not even show up for scheduled psychological sessions, failing to see the need for treatment or intervention.

Empirical validation of this typology has been attempted by Wood and Griffiths (2007). Fifty problem gamblers, aged from 18 to 63, were recruited in Britain and given detailed clinical interviews. The focus of the interviews was grounded on the Blaszczynski and Nower's pathways model (2002). The results suggest that the majority of the gamblers fell into the emotionally vulnerable group. Using thematic analysis of the responses of the participants, the researchers found that problem gamblers gamble to escape from personal problems. The escape is achieved through mood modification involving fantasies, dissociation and/or changes in arousal. Gambling for these individuals serves the function of filling the psychological emptiness or the void within the person and helps

them to avoid their daily problems.

Clinical observations of some of the casino gamblers in Macau, however, have produced some interesting, and perhaps astonishing, features (Chan & Ohtsuka, 2009). Even though these gamblers might have come from different background and social classes, they all share similar characteristics, namely, a lack of motivation to seek treatment, poor development of conscience reasoning, a preoccupation with gambling, detachment from their families, an absence of guilt feelings, and a lack of rational thinking associated with the presence of paranoia and superstitious beliefs. Behaviourally, these individuals can be described as antisocial and impulsive. Some gamblers stay in the vicinity of the casinos all day. They ask or even beg people for money. These persons might appear to be in a low mood sometimes as most of them have left their families and have no significant means of supporting themselves financially except by gambling. But as long as they are in the casinos, they are lively and verbal and seek every means to obtain a penny to gamble. Clinically, these individuals might suffer from health problems such as chronic malnutrition and insomnia. As a group, they demonstrate most of the characteristics of the antisocial impulsive gamblers of the Blaszczynski and Nower's pathways development model. The Macanese call this type of a gambler Paichai (扒仔), which literally means a person who grabs money from others.

In Hong Kong and Macau, the majority of the research projects focus on the prevalence of problem gambling. Little research has been undertaken into the pathways development of problem gamblers. Though Paichais are not even mentioned in the gambling literature, they are a distinct group in the casinos. They have no legal means to make a living, relying on begging to finance their gambling. Often, they stand at the backs of other gamblers, cheering and supporting them while they are betting on the tables. At other times, they might

act as middlemen for loan sharks in the casinos or even steal money from other gamblers.

They act in various manipulative ways in order to make a living. These gamblers take good advantage of the complimentary food and drinks of the casinos. Some of them even sleep in the casinos, on sofas in waiting areas. These gamblers are preoccupied with gambling and their lives revolve around casino gambling. They can be described as the “resident gamblers” in the casinos.

The present study thus aims to investigate the personality characteristics and the subjective world of Chinese casino pathological “resident” gamblers known as Paichais, and to develop a typology of the Chinese pathological gamblers, using the Blaszczynski and Nower’s (2002) pathway model.

The purposes of this project were:

1. To understand the subjective and qualitative world of Chinese pathological gamblers
2. To make a psychological and social portrait of these gamblers in the particular cultural society of Hong Kong and Macau.
3. To recommend a psychological profiling and typology of these pathological gamblers

The current research aimed to construct a clinical and social profile of casino gamblers in Macau. More specially, the project examined the following questions:

- What is the development background of the gamblers? Are there similarities or common themes in their development?
- What are their pathways of development in gambling? What triggers their first gambling experiences? Are there significant milestones in their development of pathological gambling?

- What are their favourite games and their choice of gambling venues and why?
- What is the nature of their subjective world and what feelings do they hold towards gambling?
- How do they see their families and their communities?
- What are the cognitive schemas, especially their cognitive distortions of gamblers?
- What are their behavioural traits? And what are their personality characteristics?
- Do they have any somatic complaints like anxiety and headaches?
- Do they show any signs of clinical depression?
- What kinds of superstitions do these individuals hold? Do these relate more to particular social issues in the local culture?
- How would factors such as locus of control and gamblers' fallacy influence these gamblers in their gambling habits?
- What are the behavioural outcomes of their cognitive patterns?
- What is the nature of their relationship with their families?
- How do their gambling habits influence their career development?
- What are their daily living routines? How does their gambling fit in with their lives and those around them? How have their lives been influenced by their gambling behaviour?
- Have they attempted any treatment program for their gambling behaviour?
- What is the long-term prognosis of their gambling problems?

A detailed psychological assessment of these gamblers is necessary in order to present an accurate classification of individual circumstances leading to excessive gambling and possibly to establish a typology of the pathological gamblers in Macau. No research to date has focused on the Chinese “resident” pathological gamblers and little is known about their worldviews. Therefore, a grounded approach without imposing preconceived perspectives is deemed necessary and appropriate. Hence, this research will use qualitative in-depth interviews to investigate the Paichais’ subjective worlds. Further, insight gained through interviews and observation of the Paichais will be examined using a theoretical framework regarding the development and maintenance of problem and pathological gambling (e.g., Brown, 2002, Jacobs, 1986).

The current study will test the following research hypotheses:

1. The Paichais, as a group of distinct problem gamblers, share common developmental pathways. During their adolescent years, proximity to gambling is a significant factor in their development of problem gambling. They experience early wins in their gambling career, which are followed by subsequent losses and chasing.
2. When compared with non-Paichais, Paichais have a more intensive involvement in gambling. Their level of problem gambling should be more serious than non-Paichais.
3. A Paichai’s subjective world is preoccupied with gambling only.
4. Paichais’ pathway development best fit the antisocial-impulsive gamblers according to the Blaszczynski and Nower (2002) pathways development model.

In this project, the phenomenological research methodology is employed. The benefits of this methodology are to “describe as accurately as possible the phenomenon,

refraining from any pre-given framework, but remaining true to the facts” (Groenewald, p. 5). In simpler terms, the phenomenological approach seeks to understand social and psychological behaviour from the inner perspectives or the subjective world of the people involved. This approach uses a different approach from the traditional quantitative social research method. Firstly, random sampling is not a preferred approach in the collection of data. Instead, judgment sampling can be employed (Hing & Breen, 2006). In this method, the researcher will select suitable candidates for the study. Another method is known as snowball sampling. Snowballing is a method of recruiting new participants by asking one participant to recommend others for interviewing (Babbie, 1995). It was projected that 15 Chinese pathological gamblers would be invited to this study. The participants who meet the criteria of Chinese “resident” pathological and problem gamblers were recruited from casinos in Macau. The researcher would analyse the results of in-depth qualitative interviews and observation using the phenomenological approach. The Problem Gambling Severity Index of the Canadian Problem Gambling Index (Ferris & Wynne, 2001) is employed to assess their involvement in gambling. For comparison purposes, some non-Paichai gamblers would also be invited to the current study.

The data analysis followed Hycner’s (1999) explication process. The process has five steps:

1. Bracketing and phenomenological reduction: bracketing is a specific approach to phenomenological study, wherein the researcher’s interview questions are focused on the participant’s experiences, feelings, beliefs and convictions about the issues.
2. Delineating units of meaning: the researcher has to carefully examine the data and make a judgment on the true and holistic meaning of the participant’s

responses in the interviews.

3. Clustering of units of meaning to form themes: the researcher will derive themes from the interview records of each participant.
4. Summarizing each interview, validating it and changing it according to the situation.
5. Extracting and developing general and unique themes and making a composite summary.

This methodology intends to explore deeply the qualitative and subjective world of the casino gamblers and see the issue of gambling from their perspective. With this information, the gamblers will then be classified according to the Blaszczynski and Nower's pathways model (2002) of problem and pathological gambling. The classification can help future researchers and treatment specialists to make recommendations regarding the needs of the casino gamblers in Macau.

Chapter 2

Literature Review

Frame of reference:

Hong Kong and Macau are both self-governing Special Administrative Regions of the People's Republic of China. While the two governments are separate and independent jurisdictions, the people share the same Chinese cultural and ethnic heritage and language. The two regions are only 64 kilometers apart from each other. The majority of casino gamblers in Macau (population: about 540,000) come predominantly from Hong Kong (population: about 7 million). A lot of gamblers in Hong Kong go to Macau regularly as there is no casino in Hong Kong. The trip between Hong Kong and Macau takes only about 1 hour by ferry. Thus, it is fair and appropriate that this study draws on the literature and participants from both Hong Kong and Macau.

The State of Gambling in Hong Kong and Macau

Gambling is generally defined as "risking something of value on the unknown outcome of some future event..., the ultimate hope of gambling is to realize a value greater than that risked." (Aasved, 2003, p.3). Gambling first appeared in Babylon in 1,800 B.C. Reports of gambling were also found in Egypt in 1,600 B.C. The history of Chinese gambling even predates Babylon, as it can be traced back to some 4,000 years ago (McMillen, 1996). Throughout the Chinese history, gambling has been regarded as a cultural pastime. Historically, almost anything that involves chance and uncertainty has been gambled on. This includes Chinese chess, dice, cock fighting, cricket fighting, horse racing and mahjong (Zheng, Walker, & Blaszczyński, 2008). One of most popular Chinese games is mahjong. Traditional legend has it that Confucius, the great Chinese philosopher, invented this some 2,500 years ago (Lam, 2005). Usually mahjong is played among friends and relatives during holidays. It is a widely accepted form of family

entertainment (Ohtsuka & Chan, 2010). Today, mahjong is a popular game in China and the many Chinese communities around the world, as well as in the Western countries.

While social gambling has been accepted by many as a means of entertainment, problem gambling has been a concern for health care professionals (Delfabbro, 2008). Although the term “pathological gambling” is often used interchangeably with “compulsive gambling” and “problem gambling” in the gambling research literature, Delfabbro (2008) has made a clear distinction between the three terms. According to Delfabbro, the term “pathological”, though favoured by early researchers in the field (Custer & Milt, 1985), carries a medical connotation. It conveys the opinion that problem or excessive gambling involves a biological or hereditary origin. Problem gambling would then be considered a result of maladaptive brain functioning that culminates in the decrease in impulse control of behaviour, in this case, the control of gambling. On this issue, Blaszczynski (2008) argues that the medical tradition might be attributable to the emphasis on biological components as determinants of human behaviour which is especially popular in the United States. Mental diseases are often interpreted as a “disease of the brain.” Such classification ignores the cognitive and behavioural influences on purposeful behaviour. As such, the Australian and British researchers (e.g., Delfabbro, 2008, Orford, 2004, Walker, 1992) are more inclined to conceptualise excessive gambling in terms of behavioural patterns and consequences to self and others. Neal and his associates provide a working, “National” (Australian) definition of problem gambling in terms of the actual behaviour and its consequences: “Problem gambling is characterised by difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, others, or the community” (Neal, Delfabbro, & O’Neil, 2005). This definition represents the predominant model of problem gambling among Australian gambling researchers (Delfabbro, 2008).

In Hong Kong and Macau the majority of the research studies follow the American DSM IV-TR (American Psychiatric Association, 2000) definition of taking problem gambling as a disease model (e.g., Cheng, 2006; The Hong Kong Polytechnic University, 2002). The assessment criteria are often based on the DSM diagnostic model and the results on the South Oaks Gambling Screen (Lesieur & Blume, 1987). Thus, as the current study draws on the literature and participants in Hong Kong and Macau, “pathological gambling” is arguably the more preferred term for the present study.

DSM IV-TR (American Psychiatric Association, 2000) describes pathological gambling in terms of the personality characteristics of the clients and the consequences of gambling. The symptoms reflect the maladaptive nature of the gambling behaviour of the person and the damages the person has made to himself and significant others. Table 1 lists the following as the symptoms of pathological gambling:

Table 1: Definition of Pathological Gambling (DSM IV-TR 671)

| |
|--|
| <p>Symptoms of Pathological Gambling:</p> <p>Persistent and recurrent maladaptive gambling behaviour as indicated by five (or more) of the following</p> <ol style="list-style-type: none"> Preoccupation with gambling Needing to gamble with increasing amounts of money in order to achieve the desired excitement Repeating unsuccessful efforts to control, cut back, or to stop gambling Being restless or irritable when attempting to cut down or stop gambling Gamble as a way of escaping from problems or of relieving a dysphoric mood Returning another day to get even after losing money from gambling Lying to family members or others to conceal the extent of involvement with |
|--|

gambling

- h. Committing illegal acts to finance gambling
- i. Jeopardizing or losing a significant relationship, job, or educational or career opportunity because of gambling
- j. Relying on others to provide money to relieve a desperate financial situation caused by gambling

And the gambling behaviour is not accounted for by a manic episode.

Individuals demonstrating five symptoms or more are considered to be pathological gamblers.

DSM-IV-TR places pathological gambling in the category of impulse control disorders. While the psychiatric community is currently drafting the upcoming DSM-V, there has been an ongoing debate as to where to clinically locate pathological gambling (Fong, 2009). One perspective is to list pathological gambling (PG) on the obsessive-compulsive disorder category as PG shares similar symptoms of preoccupation, tension-reducing behaviour and repetitive rituals. Another perspective is to include it as an addictive disorder in view of symptoms of loss of control, craving urges and withdrawal symptoms. Thirdly, PG can be taken as a separate impulse control disorder with unique symptoms and characteristics.

The recent trial version of DSM V has been published.¹ Pathological gambling is re-classified from Impulse-control Disorder Not Elsewhere Classified to Substance-Related Disorder, which will be re-named as Addiction and related Disorders. The rationale for the re-classification is that pathological gambling shares commonalities in clinical

¹ The recommended version DSM V can be retrieved from <http://www.dsm5.org/ProposedRevisions/Pages/proposedrevision.aspx?rid=210>.

symptoms, etiology, comorbidity and treatment with substance abuse disorders. Also, the new proposed re-classification removes the illegal act criterion.

Prevalence studies in gambling are important as they give the policy makers, treatment specialists and researchers the extent of pathological gambling in a jurisdiction. In the following sections, the major prevalence studies in Hong Kong and Macau will be discussed in detail. In addition, problem gambling prevalence studies in other jurisdictions will also be presented for comparison purposes.

Prevalence Studies in Hong Kong and Macau

Prevalence studies of problem gambling have been performed in immigrant Chinese communities around the world. In Australia, one of the earliest reports on Chinese communities is a report produced in New South Wales in 1892, in which it was suggested that about a Chinese community of 3500, at least 700 or one fifth were “subsisting on the proceeds of the gambling houses.” (New South Wales Royal Commission, 1892). This figure might not be precise. But at present, it is difficult to validate such this prevalence rate. Nonetheless, this indicates that there was a high level of gambling activities in Chinese communities in New South Wales in the 19th century.

The first scientific prevalence study on Chinese gambling was performed in Canada (Sin, 1996). The sampled population were the service users of the Chinese Family Service of Greater Montreal ($N=229$) and the Chinese restaurant workers in the province ($N=56$). This exploratory study showed a prevalence rate of pathological gamblers of 1.7%.

In Australia, Blaszczynski, Huynh, Dulmao, and Farrell (1998) conducted a study of the Chinese community in Sydney. In this study, the researchers distributed questionnaires to students in a Chinese local school, who took the surveys to their parents. Some two thousand questionnaires were distributed. The response rate was 27.4%. Over

a quarter of the respondents reported being born overseas in Mainland China or in Hong Kong. Analysis was performed on the returned questionnaires. Using the Chinese translation of SOGS as the screening assessment, the researchers found that 2.9% of their Chinese sample was problem gamblers. More problem gamblers were found among males (4.3%) than females (1.6%). Respondents who reported a prior history of gambling in their countries of origin were more likely to develop gambling problems in Australia. More recently, Thomas (2000), in a report for the Victorian Casino and Gaming Authority, found that 10.7% of Chinese in the sample were probable pathological gamblers.

In a series of prevalence studies in Sydney, Zheng et al. (2008) found that 2.9% to 3.8% of a Chinese community sample was classified as problem gamblers by the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001). Male participants and those aged 35 years and over were more likely to wager on mahjong. In Chinese communities, mahjong is an important part of Chinese social life and is considered a social activity (Ohtsuka & Chan, 2010). Wagering on Mahjong during Chinese New Year is not regarded as gambling. The Chinese use the verb “play” rather than “gamble” when they refer to mahjong. Outside of holiday times, gambling remains a popular social activity. Mahjong is extremely popular among the older generation, especially women. Mahjong-mad mature Chinese women are proverbial in the Chinese culture and the portrayal of these women playing mahjong is ubiquitous in popular mass media (Ohtsuka & Chan, 2009). Although regarded as a benign form of gambling in the Chinese community in Macau, superstitious beliefs in mahjong are linked to problem gambling (Ohtsuka & Chan, 2010). A study of mahjong players in the Chinese community in Sydney revealed that these gamblers often ascribed to superstitious beliefs in Feng Shui, beginner’s luck, unstoppable winning streaks and specific phases of good and bad luck (Zheng et al., 2008). However, their study did not elaborate on whether Chinese culture

shaped superstitious beliefs or whether these beliefs predicted problem gambling in the community.

Recently, Thomas, Moore, Kyrios, Staiger & Graffam (2010) have reported a comparative study on the prevalence rates among international students in a university setting in Australia. In this survey, the authors compared three groups of international students from three ethnic origins: namely, Italian, Chinese and Western. Among the participants, Chinese students were found to experience more academic and socio-cultural stressors than the other two groups. Overall, gambling problems were infrequent and the three groups did not differ in the severity of gambling problems. However, while stressors were found to be unrelated to gambling problems for Western-background students, they were significantly related for the problem gambling problems of Chinese and Indian students. The authors concluded that stress and problem gambling appeared to be correlated. They hypothesized that Chinese international students employed gambling as a means to cope with stress.

In an excellent review of gambling research in Australia, Delfabbro (2008) writes about the gambling behaviour of Chinese people:

“....many people of Chinese background living in Australia become very actively involved in gambling, particularly in casino table games and in private betting revolving around the game of mahjong. Two groups of Chinese people who are thought to be particularly at risk in Australia are students and shift workers. For shift workers, gambling is very tempting because it appears to be an attractive and easy way to supplement meagre incomes, whereas students may be tempted to gamble because of the availability of student loans or other lump sum payments that are provided by their home countries to assist their studies in Australia (Delfabbro, 2008, pp.42-43).”

Apart from the small Chinese immigrant communities, the first major territory-wide investigation of the prevalence of gambling in Hong Kong was reported in 2002 (Hong Kong Polytechnic University, 2002). This research project was funded by the Hong Kong government and was carried out by a research group from the Hong Kong Polytechnic University. This ambitious study consisted of four parts:

- a. In the first major phase of the study, random samples of 2004 residents in Hong Kong were interviewed on the phone. The range of age of the participants was from 15 to 64.
- b. The second part of the study was a general survey of 2,000 students on issues of gambling.
- c. The third part was a qualitative study of twenty pathological gamblers and six family members of the gamblers. In this part ten social gamblers were also interviewed for comparison purposes.
- d. The fourth part was a detailed analysis and comparison of the findings in the current study with related literature in gambling research.

This study found that 78 per cent of the sample had participated in gambling activities in the previous year. The most common form of gambling was Mark Six (a form of lottery) (64.2%) and social gambling (45.9%). Using the criteria of DSM-IV (American Psychiatric Association, 1994), 1.85% of the participants could be considered as “probable pathological gamblers.” About half (48.6%) reported horse racing as their most favored game. These gamblers were more likely to be male, less educated (grade 9 or below), and to have a monthly income of HK10,000 or more.

In the student sample, about half of the respondents (49.2%) had participated in social gambling (gambling with friends and family during holidays and festivals) in the previous year. The findings indicated that young people did not consider social

gambling and Mark Six as forms of gambling. They considered these activities as part of their play and leisure activities. The prevalence rate of pathological gambling among underage students was found to be 2.6%.

The in-depth qualitative study of 20 pathological gamblers revealed interesting features of the pathway development of problem gambling. Most of these individuals were exposed to gambling at a young age. Beginning in childhood, they regarded gambling as a culturally and socially accepted behaviour. Very often they started gambling with peers and friends. Pathological gamblers in the study tended to overestimate their chance of winning in their gambling activities. They were more inclined to believe in luck and to hold superstitious beliefs. Very often they would remember more about their winning experiences while tending to forget about their losses. Further, they were likely to chase after their losses to maintain their level of excitement in gambling. As a group, these participants had more problems in the areas of stress management and self-control.

These gamblers had experienced a lot of problems as a consequence of their gambling. More than half of them reported having bouts of depressed moods. Several admitted having thoughts about committing suicide. Most of the respondents admitted having difficulties in their relationship with their spouses and colleagues at work. While all of them acknowledged the need to seeking help from professional counsellors, they had not participated in any forms of treatment prior to the study.

In 2005, researchers from the Social Services Centre of the University of Hong Kong launched a follow-up prevalence study of the gambling behaviour of the people of Hong Kong (The University of Hong Kong, 2005). The study consisted of three parts:

- a. A telephone survey of a territory-wide representative sample of 2,093 individuals aged 15 to 64.

- b. A survey of 2,095 students from secondary schools and institutes of the Hong Kong Vocational Council. The participants were given self-administered questionnaires covering questionnaires that assessed their gambling behaviour and patterns.
- c. Five focus group discussions with each group inviting different stakeholders of gambling, namely: pathological gamblers, family members of pathological gamblers, social gamblers, youths (aged 18 to 24) and students (aged 18 or below). The discussion aimed to understand the participants' views on gambling, the development of the gamblers and their perspectives on treatment and therapy.

This study produced similar findings to the 2001 study. Overall, 81.1% of the respondents participated in some forms of gambling (78% in 2001). The participation rate in horse-race betting decreased from 30.4% in 2001 to 25.5% in 2005 and the participation in illegal gambling activities in the previous 12 months decreased from 4.2% in 2001 to 2.1% in 2005. The researchers attributed such a decrease to the legalisation of soccer betting in 2003. In this investigation, 16.3% of the respondents have participated in football betting with the Hong Kong Jockey Club. Using the DSM-IV (American Psychiatric Association, 1994) as the assessment tool, the prevalence rates for pathological gamblers and problem gamblers are 2.2% and 3.1% respectively (the figures in the 2001 study was 1.8% and 4% in 2001).

The participation rate of gambling activities among youths aged 12 to 17 was 29.8%. There was a significant drop in the participation rate in Mark Six lotteries and horse-race betting with the Hong Kong Jockey Club among secondary students (from 19.4% in Mark Six and 9.2% in horse-racing in 2001 to 15% and 4.4%, respectively). Among youth, "killing time" was given as the main motivation for their gambling. Employing DSM-IV as the assessment tool, the rates of pathological gamblers and problem gamblers are both 1.3% (as compared to 2.6% and 4.5% respectively in 2001).

These two studies were the most comprehensive studies undertaken in the Chinese communities in Hong Kong and Macau. Despite its extensiveness in scope, the above two studies have a number of limitations. Firstly, the studies have relied mostly on telephone interviews. It is difficult, if not impossible, to validate data from telephone interviews (Volberg, 2002). Further, the response rate for these studies was low. For example, the 2005 study attempted to contact 17,654 individuals by telephone. Among these potential participants, only 2,093 or 11.86% completed the study successfully.

Prevalence studies of a comparatively smaller scale have been reported. For example, Tang, Wu and Tang (2007) collected data in two gambling treatment centers in Hong Kong. A total of 952 (841 men and 111 women) participated in the study. Female gamblers, as a group, preferred casino and mahjong gambling, while male gamblers preferred betting on horse tracks and soccer games. The authors attributed the differences to the particular economic and social conditions of the female gamblers as 65% of them were either non-employed or full-time homemakers. Gambling might offer them decision-making processes and access to economic independence, recreation and social contact with the community. In the sample, almost all gamblers were emotionally troubled by their gambling debts, their inability to control gambling and gambling related interpersonal problems. For the female gamblers in the study, gambling might serve as dissociation from emotional problems, a finding consistent with studies of women gamblers in Australia (Pierce, Sagris, & Loughton, 1997).

A similar study has been reported by a research group in the Chinese University of Hong Kong in July, 2006 (“A survey on gambling behaviours,” 2006). The researchers sampled 500 individuals in Hong Kong. About 70% of the participants had engaged in various gambling activities. About 54% of the participants in the survey are under 20. And about 7% of the gamblers started gambling under 12. The most popular

forms of gambling were Mark Six (78.2%), football betting (27.8%) and casino gambling (9.7%). Among the gamblers, most saw gambling as a means to make quick money, a way to socialise with friends and an entertaining and relaxing activity. One surprise finding is that 30% of the students surveyed were gamblers. Mark Six usually was the first gambling activity they participated in. Around 40% of these underage student gamblers had betted on the 2006 World Cup Football and their bets range from HK\$500 to HK\$50,000. This study, like many similar research projects, suffers a number of methodological problems: namely, the absence of random sampling, the superficiality of interview questions, and the lack of in-depth inquiry on the personality characteristics of the gamblers.

Macau, a special administrative region of the People's Republic of China, is situated some 60 kilometres southwest of Hong Kong. There are ferries that connect Hong Kong and Macau. The ferry ride takes about one hour and an economy class ticket costs around HK\$133 to HK\$180 (less than AUD25) depending on the time of the ride. A lot of gamblers from Hong Kong travel to Macau to gamble regularly. Some even go to Macau on a daily basis.

Macau, a sleepy village outpost of local fishermen, was placed under Portuguese administration in 1557. Portuguese were never the majority in Macau (only constituting less than 5% of population of 26,000 in 1640) and China retained sovereignty and Chinese residents in Macau were subjected to Chinese laws. After the Portuguese settlement in Macau, it became an important trade post between three major Portuguese trade routes: Macau-Malacca-Goa-Lisbon, Guangzhou-Macau-Nagasaki, and Macau-Manila-Mexico. Under the Portuguese administration, the small island (total area: 29.2 square kilometers) was transformed into a mercantile city with Western-style buildings and legislature. The Portuguese government appointed the Portuguese governors to rule and run the territory

though the majority of the government officials were from the local area. Western style educational and legal systems were installed in Macau. Though the Portuguese government encouraged the migration of Portuguese to Macau, over 90% of the local residents are now Chinese. In 1999, Macau was returned to Chinese sovereignty. It is now a special administrative region in China, which practices the Basic Law of Macau and a high level of autonomy is allowed in many areas, excepting only foreign policy and defence. The People's Republic of China does not intend to enforce the socialist system in Macao at least until 2049 (that is, 50 years after Macau's return to Chinese sovereignty). Macau has its own government and the people of Macau have the right to vote for 10 members of the 29-member Legislative Assembly of Macau and local councillors. The history of gaming industry in Macau started about 70 years ago. The first casino monopoly was granted to the Tai Xing company in 1937. In 1962, a territory-wide monopoly was given to STDM, a company headed by Dr. Stanley Ho. The company introduced western-style commercial gaming, including casinos, greyhound racing, horse racing and sport-betting into Macau. At present, there are over 33 casinos in Macau. While the majority of the casinos are under the management of STDM, American companies such as Las Vegas Sands, MGM, and Wynn, as well as Australian gaming companies have invested in a number of integrated resorts in Macau either on their own or as a joint venture with other local/international investors. While gaming is the major concern of the revenue structures of these integrated resorts, facilities also include hotels, luxury shops and boutiques, elegant restaurants, and entertainment shows.

Siu and Eadington (2009) have made an insightful observation regarding the nature of gaming industry in Macau. From its inception in 1930's, the gaming industry operated in a grey area without explicit government regulations. In 2008, the total casino gaming revenue was 13.57 billion, 67% of which came from VIP and junket operation.

The total casino revenue saw a five time increase from the figure of 2001, when the gaming operation belonged to the monopoly company headed by Dr. Stanley Ho. However, a local practice in Macau that allows junket operators to rent high roller facilities from casinos makes it difficult for the government of Macau to regulate gaming industry practice (Siu & Eadington, 2003).

The most recent prevalence study of gambling in Macau was reported by Fong and Ozorio (2005). In this study, a total of 1,121 subjects were contacted over the phone. About two-thirds of the respondents had gambled the in the previous year. The three most popular forms of gambling were social gambling, Mark Six lottery and soccer/basketball betting. Using the DSM-IV (American Psychiatric Association, 1994) as the screening tool, 1.78% of the respondents are classified as probable pathological gamblers and 2.5% are considered as probable problem gamblers. This research project is the first scientific study of problem gambling in Macau.

For comparison purposes, the life-time prevalence rate of pathological gambling in the United States in the same period ranges from 0.4 to 0.6% (Petry, Stinson, & Grant, , 2005; Slutske 2006). The estimate for Germany is 0.5% (Queri, Erbas, & Soyka, 2007).

In conclusion, the majority of the prevalence studies can only serve the function of counting the number of problem gamblers in Hong Kong, while neglecting in-depth analysis, such as the personality dynamics of the gamblers, their development history and how this relates to the acquisition of the gambling problems. Further, there are few studies that investigate the subjective world of the gamblers, their defensive mechanism in face of stress that results from gambling and their responses to treatment. The state of gambling research in Hong Kong and Macau is still in its infancy. It is more desirable to focus future research on the nature and problems of problem gambling.

Secondly, the validity of the assessment in a number of these studies is in doubt.

The majority of these studies employed part-time investigators. The reliance on investigators who were paid by the hour or numbers of telephone calls may impact on the quality of information gathered. Thirdly, many of these research projects aimed to study the personality and the behavioural characteristics of gamblers only.

The popularity of gambling in Hong Kong and Macau can be demonstrated by the study of the local popular culture as popular culture can be seen as a form of public fantasy – a collective dream world (Storey, 1997). In Hong Kong, films with gambling themes have had tremendous success at the box office. Four of these films, namely, "God of Gamblers Returns" (賭神 2-1994), "All for the Winner" (賭聖-1990), "God of Gamblers II" (賭俠-1991) and "God of Gamblers" (賭神 – 1989) are ranked in the top 40 of the cumulative box office income in Hong Kong movies in the past 50 years (MovieSuper.com, 2006). A review of the history of locally produced movies has manifested an interesting phenomenon. Chan and Ohtsuka (2010b) point out that such movies in the 50's and 60's often portrayed gamblers as sinners who ended up in moral degeneration, social instability and the destruction of the home. In the 80's and 90's, gamblers were portrayed more positively as likeable and heroic characters. Further, successful movies like "God of Gamblers" and "All for the Winner" presented gamblers as gods who possessed great skills, intelligence and the supernatural power to win. In the outcome of all these movies, successful gamblers often received recognition from an admiring crowd of followers and gamblers, won lots of money and the love of attractive women. As gambling films reflect the fantasy and the cognitive world of the contemporary social environment, it is reasonable to suggest that, for the majority of people in Hong Kong, gambling has been taken, in addition to being a popular pastime, as a fast and efficient means to achieve success in life .

Prevalence Studies of Gambling in Other Jurisdictions

United Kingdom

Prevalence studies of gambling have been reported in UK. There have been two nationally representative surveys, one in 1999 and the more recent one in 2007. The 2007 survey was performed by the National Centre for Social Research (Wardle, Sperton, Orford, Erens, Griffiths, Constantine & Pigott, 2007). In a random national survey of 9,003 individuals, 68% of the respondents had participated in some form of gambling in the previous year. This is a slight decrease from 72% participation rate in 1999. The most popular game was the national lottery. More than half (57%) of the respondents participated in the national lottery. The next most popular games following the lottery were scratch cards (20%), horse race betting (17%) and slot machines (14%). When compared to other games, only 3% of the respondents had gambled online (3%) and in a casino (4%). When compared to the 1999 survey, there were significant declines in general participation in the national Lottery Draw (from 65% to 57%), football pools (from 9% to 3%) and scratch cards (from 22% to 20%). Only 6% of the subjects in the study employed the internet to gamble (including online games and internet betting). Overall, 71% of the men in the survey gambled in the previous year (compared to 65% of the women). For each of the gambling activities except bingo, men outnumbered women in participation.

Socio-economic status (SES) and gambling were found to be inversely correlated. Individuals with higher incomes were more likely gamble than those with the lowest household income. And people with higher education were less likely to gamble. 61% of the respondents with a degree gambled in the previous year as compared to 73% of those educated to GCSE/O level (roughly equivalent to US high school diploma).

The study employed two measures of problem gambling; namely DSM-IV-TR

(American Psychiatric Association, 2000) and the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI, Ferris & Wayne, 2001). The rates of problem gambling were 0.6% (using the DSM-IV) and 0.5% (using the PGSI of the CPGI). When compared to the figure for 1999, there was no change in the total percentage of problem gambling in Britain (in 1999, the rate was 0.6%). In 2007, problem gambling was more prevalent among males and the low income group. A significant correlation was found between problem gambling and parental gambling. That implies that if a person comes from a family where the parents are gamblers, they are more at risk of becoming a problem gambler. Other risk factors were poor health, being single, having fewer educational qualifications and coming from a lower income group.

Detailed analysis of the participants' responses revealed some interesting characteristics of the gambling habits of the British. The highest prevalence of problem gambling was found among those who played games with spread betting (14.7%). Examples of such games are football pools and basketball game betting. In the survey, a new 14-item scale assessing the general attitude towards gambling was developed. Overall, the attitude towards gambling was more negative than positive. In general, the majority of respondents believed that gambling brought more harm than benefits to society. The respondents who showed the least favourable attitude towards gambling were likely to be over 55, widowed, and those with a relative who had a gambling problem.

Switzerland

Bondolfi, Jermann, Ferrero, Zullino and Oslek (2008) reported a prevalence study of gambling in Switzerland. The researchers were particularly interested to investigate whether the opening of new casinos in Switzerland had increased the incidence of problem gambling. A total of 2,083 telephone interviews were completed. The past-year rate of problem gambling was found to be 0.8% and the rate for pathological gambling was 0.6%.

No significant relationship was found between alcohol abuses and gambling. When compared to the results of a previous survey in 1998, the rate for problem gambling did not change significantly. The authors thus suggested that the opening of casinos did not significantly increase the rate of problem gambling in the community.

United States

There have been a number of prevalence studies performed in the United States in the last 20 years. Shaffer, Hall and Bilt (1997) performed a meta-analysis on 119 prevalence studies that were done in the United States during the last two decades. The research synthesis provided a more reliable prevalence rate on the national level. In the study, the authors defined four levels of gambling: Level 0 represented non-gamblers (individuals who do not gamble at all); Level 1 referred to social or recreational gamblers (individuals who gambled as a recreational hobby and did not experience any problems); Level 2 described problem gamblers (individuals who experienced less serious levels of gambling problems); and Level 3 represented pathological gamblers (those individuals who demonstrated the symptoms of pathological gambling according to the DSM IV).

This study combined the problem and pathological gambling into one group-disordered gambling. In this study, the lifetime prevalence rates for the US and Canada were estimated at 1.6% for Level 3 gamblers (pathological gambling) and 5.45% for Level 2 gamblers (problem gambling). The past-year prevalence rates were 1.14% for Level 3 gamblers and 3.94% for level 2 and 3 combined together. The prevalence rates for youths were higher.

This study is the most extensive of its kind in the US and Canada. It included samples from 1975 to 1997 and the majority of these investigations were conducted at the state level. However, the study has the following limitations. The South Oaks Gambling Screen (SOGS) was the commonly used instrument in the majority of the studies. The

scale was first designed to assess the clinical population (Lesieur & Blume, 1987). Its validity in application to the general population has been put under much scrutiny recently (Young & Stevens, 2008). The main problem is from the initial assumptions built into the original design of the screen. The SOGS was originally designed for the clinical population. Thus, the findings of the majority of research projects that employed SOGS as their primary assessment tool might be questionable. When compared to other instruments, the percentage for false positives of SOGS is rather high.

Another limitation of the prevalence studies reported in the US is the criterion for problem gambling. Among the sampled studies Shaffer et al. (1999) have analyzed, the majority used different definitions and criteria for gambling. For instance, the first national study on gambling was undertaken by the University of Michigan Survey Research Center in 1975 (Commission on Review of the National Policy Toward Gambling, 1976). From the sample of 1,736 adults, 0.77 % of the sample was classified as “probable” compulsive gamblers and 2.33% was identified as “potential” compulsive gamblers. The study did not have a clear measure or criteria for compulsive gambling as the classification of pathological gambling into the Diagnostic and Statistical Manual 3rd edition (American Psychiatric Association, 1980) was only completed in 1980. Recent studies, especially those launched in the 1990’s, would use the term “pathological gambling.”

Volberg and Banks (2002) have outlined some of the major methodological challenges of gambling research. The authors suggest that these problems fall into two distinct issues: the broad issues of measurement in the social sciences and specific measurement problems on problem gambling research. The first issue is the respondent denial and refusal rates in telephone surveys. The second issue deals particularly with gambling and problem gambling research. This includes the validity and reliability of the South Oaks Gambling Screen (SOGS).

Canada

In Canada, gambling is under the control and management of provincial and territorial government. Net revenue from gambling, including video lottery terminals, government-run lotteries and casino tax rose from 2.7 billion in 1992 to 12.4 billion in 2004, of which 5 billion was profit. Revenue from horse racing, however, dropped from \$532 million to \$415 million during the same period. In 2003, the national average of personal expenditure was \$477. Among the ten provinces, Saskatchewan ranked first with \$647 per person aged 18 and over. Gambling participation increased with household income. People from higher income families tended to spend more on gambling. Lastly, being alone might be a risk factor for gambling as one in six individuals living alone report involvement in legalized gambling (Marshall, 2005). This may indicate that gambling was more likely a favorite pastime for the isolated elderly.

The first national survey on prevalence of problem gambling was reported by Cox et al. (2005). The randomly selected sample, numbered 34,770, represented adults over 15 from all 10 provinces. The response rate was 77%. The overall gambling participation rate was 76% with little inter-provincial variability, with the highest rates of gambling participation in Quebec (79%) and the lowest in Alberta (72%). This study employed the Canadian Problem Gambling Index (CPGI) as its assessment tool (Ferris & Wynne, 2001). The nine-item Problem Gambling Severity Index (PGSI) of the CPGI proposes problem gambling as a one-dimensional construct that causes harm to self and or to others. The instrument consists of items on personal guilt or anxiety, financial problems, chasing losses and personal control on gambling. Scores of PGSI are categorized into four groups (0, 1 to 2, 3 to 7, 8 or over) to indicate the severity of gambling problems. Individuals scoring at the two highest levels are considered to demonstrate moderate problem gambling (3 to 7) and severe problem gambling (8 and over). In this

ambitious project, the researchers combined the two levels together as the indicator of problem gambling. Consequently, Manitoba and Saskatchewan (both 2.9%) reported the highest prevalence rate of problem gambling. The provinces with the lowest rates were Quebec (1.7%) and New Brunswick (1.5%).

The overall 12 month prevalence of gambling problems in Canada was 2.0%. The highest prevalence of problem gambling was found in areas where high concentrations of video lottery terminals and permanent casinos were placed in the community. This might indicate that the accessibility to gambling led to higher participation in gambling and higher prevalence of problem gambling. This proposal has also been put forward by other researchers (e.g., Rush, Veldhuizen & Adlaf, 2007).

Prevalence studies on a smaller scale have been undertaken in the individual provinces in Canada. An extensive survey, for instance, has been undertaken by Ipsos-Reid and Gemini Research in 2002(“ British Columbia problem gambling study”, 2003). The study contacted a representative sample of 2,500 adult British Columbians by telephone. The unique feature of this study was the employment of two problem gambling indexes. All the respondents were assessed by the South Oaks Gambling Screen (SOGS) and the Canadian Problem Gambling Index (CPGI). This study has a number of important findings. When compared to the previous studies in 1993 and 1996, the 2002 study found that fewer people in British Columbia were gambling on a lifetime (91%), past year (85%) and weekly (39%) basis. The biggest decline was evidenced in the participation of lottery games. Gambling was often taken as a form of low cost entertainment, as two-thirds of the past-year gamblers spent less than C\$10 per month. The age-group of 55-64 was those who are most likely to gamble on a weekly basis. Other pertinent risk factors were being male or retired, and having a lower level of education or a higher income.

The research employed the PGSI as their assessment tool. Severe problem gamblers (those who score 8 or over) on the PGSI were found to be 0.4% and moderate problem gamblers were 4.2%. This investigation considered both groups as having significant gambling problems. Thus, the researchers combined the two groups together and concluded that the overall rate of problem gambling was 4.6%.

Australia and New Zealand

Numerous studies on the prevalence of gambling have been reported in Australia and New Zealand (AC Nielsen, 2007; Queensland Government, 2007; Productivity Commission, 1999 & Abbott & Volberg, 2000). As a whole, these studies reported that between 70 and 90% of the surveyed population gambled at least once in the previous year. The most popular forms of gambling were lottery gambling, scratch tickets (or instant lotteries), electronic gaming machines (EGMs), race betting (thoroughbred, harness, and greyhounds), and Keno. In both countries, lottery gambling was the most popular form of gambling, with a 72% participation rate for the previous 6 months in New Zealand (Abbott & Volberg, 2000) and about 60% in Australia (Productivity Commission, 1999). In comparing the data between Australia and New Zealand, Delfabbro (2008) reports that Australians spent an average of \$1,223 on gambling while residents in New Zealand spent about less than \$700 per person. In New Zealand, lotteries were a more popular form of gambling than electronic gaming devices (EGMs). In Australia, EGMs attracted a significantly higher participation rate among gamblers. In addition, in a comprehensive review of gambling research reported in Australia and New Zealand in the last decade, Delfabbro (2008) suggests that the Northern Territory had the highest gambling expenditure per person (\$2,197), while Western Australia was the lowest (\$552). In six of the eight states (South Australia and Tasmania being the exceptions) a moderate increase in gambling expenditure per person was observed from 2005 to 2006.

Significant age and gender differences were found in the area of game preferences. Younger adults and men preferred casino games, keno, sports betting and racing, whereas older adults and women liked lotteries, bingo and scratch cards more. The gender differences in gambling might be accounted for by a number of reasons. Firstly, women were less interested in games that require skills. Thus, the low level of female participation in racing and sport gambling might be due to the fact that women preferred games that were less skill oriented. Also, men are taught from childhood to be competitive and work on challenging problems that require skills and precisions. Such adolescent interests and experience might predispose men in the study to prefer games that demand control, predictability and relevant skills. Secondly, motivational factors could be important as Pierce et al. (1997) discovered that women might be motivated by intrinsic factors like escaping from boredom or to relax. Thus, gambling represents an “oasis” for many women. This could be place where hard-work, precision and control, which were the basic requirement for winning in a skill-based game such as horse-racing, were not required.

The elderly (those who are 55 or older), when compared to the younger generation, gambled less and with a smaller amount of money. However, as this group of gamblers had generally lower income, they might potentially be more at risk of developing gambling problems. The elderly were more inclined to gamble in the day time. When asked about their motivation for gambling, the dominant responses were winning for money, supporting one’s club, escaping loneliness and isolation and dealing with depression and stress.

Ethnic cultural minorities such as Indigenous and Asian communities in Australia and Maori and Islander people in New Zealand showed a higher than national rate of negative impacts from problem gambling. One of the major findings was the lack of

suitable treatment and available resources for individuals in these communities. This argument has been frequently put forward by treatment specialists in Australia and New Zealand (Wong, 2010). In a recent conference in Melbourne, Wong (2010) has explained the difficulties of providing counselling services to the Chinese community in New Zealand. Firstly, Chinese people like to “save” face in front of others. Thus, they may not be willing to disclose family issues to strangers. Secondly, the unemployment rate is high among new immigrants. Usually these people are of a low socio-economic status (SES). Some of them cannot even speak English. Without meaningful work in the daytime, they like to go to the casino, where they can meet friends. When compared to other ethnic groups, Chinese new immigrants have a higher rate of problem gambling.

Major prevalence studies have been reported on the state and territory level in Australia. Studies performed prior to 2001 usually employed the South Oaks Gambling Screen (SOGS) as the means of assessment. Individuals scoring over 5 were considered to be problem gamblers. Out of such classification, the problem gambling rates appeared to be higher in New South Wales in 1999 (2.55%) and in Victoria in 2003 (1.22%) than in West Australia in 1999 (0.7%) and Tasmania in 2000 (0.9%). More recent research usually utilizes the Problem Gambling Severity Index (PGSI) (Ferris & Wynne, 2001). On this scale, out of a possible 27, scores of 3-7 indicate moderate risks gamblers and 8+ problem gamblers. This scale is more conservative than SOGS, which has been recently criticized for being too sensitive to tap into the problem of problem gambling. Consequently, the rate of false positives is high for this scale (Young & Steven, 2008).

Problem gambling appeared to be highest in Victoria and New South Wales (0.88% in 2003 and 0.80% in 2006 respectively) and lowest in South Australia (0.4% in 2005). This indicates that states and regions with high per capita expenditure such as NSW and Victoria might correlate positively with incidences of problem gambling. When

the rate of moderate risk gamblers and problem gamblers were combined as a means of problem gambling, the overall prevalence of problem gambling was about 2% of the adult population in Australia. The overall rate of problem gambling in New Zealand was 0.6%.

Comparing Hong Kong and Macau with other countries

When compared to other jurisdictions, the participation rate for gambling among people in Hong Kong and Macau (77.3%) is higher than the comparable figure in the US (63%) but lower than that of Sweden (89%) and Australia (80%).

It is not easy to compare the prevalence rate of problem gambling in Hong Kong with that of other countries as different assessment tools have been employed. In Hong Kong, the SOGS (Leiseur & Blume, 1987) and the DSM-IV (American Psychiatric Association, 1994) have been the preferred assessment tools. To date, all the major prevalence studies in Hong Kong and Macau (e.g., The University of Hong Kong, 2005, The Hong Kong Polytechnic University, 2002, Fong & Ozorio, 2005) have employed these tools as their means of assessment while in Australia and Canada the CPGI is the more commonly preferred assessment tool.

Researchers employing the PGSI of the CPGI prefer combining severe problem gamblers (those who score 8 or over) and moderate problem gamblers (those who score from 3 to 7) as having significant gambling problems. Following this classification, the prevalence rate for problem gambling in Canada is 4.6% (Ipsos-Reid and Gemini Research, 2002) and the rate of disordered gambling was estimated to be 3.94% (Shaffer, Hall & Bilt, 1997). It is lower than the rate in Hong Kong (5.3% in 2005) and similar to that of Macau (4.28% in 2005).

In addition, research on the prevalence of gambling in Hong Kong shares a number of similarities with other countries. First, the most popular game is lottery and the participation rate (64%) is comparable to that of the United States and Australia but lower

than New Zealand. In Hong Kong and Macau, there are no instant lotteries or scratch cards. And electronic gaming machines (EGMs) are non-existent in Hong Kong – these machines are only present in the casinos in Macau.

Gamblers in Hong Kong and Macau prefer table games to EGMs as over 90% of all earnings in the casinos in Macau are from table games, the most popular games being baccarat, black jack and Sic Bo, a type of Chinese dice game (Chan & Ohtsuka, 2009a; Lam, 2005). On the basis of a series of interviews with casino gamblers in Macau, Chan and Ohtsuka (2009a) suggest that Chinese gamblers like to gamble with others around the table. At home, mahjong is the most popular game. The game is often played among relatives and friends and during festivals. All Chinese traditional games (e.g., mahjong, Sic Bo, and Pau Ku) are table games. Chinese people, according to the researchers, love to gamble against one another in close proximity. They prefer the boisterous and competitive environment, where the gamblers bet a large amount to beat an opponent (Lam, 2005). Comparatively solitary gambling games such as the EGMs may not cater for the thrill-seeking Chinese gamblers in Hong Kong and Macau. However, the existence of EGM only casinos in Macau suggests that some Chinese gamblers prefer EGM gambling as well. Among the problem gamblers in Hong Kong, the most preferred games are horse racing, casinos, and sport betting. This is in sharp contrast to Australia where 70-80% of problem gamblers play EGMs (Delfabbro, 2008).

Lastly, underage gambling might be a problem in Hong Kong though the rate is significantly lower than in the UK. Research among adolescents in Britain found that the rate of pathological gambling among youths was as high as 5-6%, a two to three times higher than among of adults (Fisher, 1992; Griffiths, 1995). One of the reasons for the higher rate of problem gambling among young people in UK was that children were allowed to play fruit machines legally in bars. In Hong Kong, youth gamble mostly on

soccer betting. Though there is stringent regulation of age limits on gambling, the enforcement of such measures has always been a problem. Teenagers can ask others to place bets for them over the telephone. In Hong Kong and Macau, anybody can place a bet via telephone and the internet. To close the loop hole, legislation should be made stipulating more stringent requirements on placing bets through the telephone.

Explanation of Problem Gambling Behaviour

Walker (1992) divides the causes of problem gambling into two broad categories: distal causes and proximal causes. By distal causes, Walker means:

“Psychodynamic conceptions of personality expose a role for gambling which may stretch back to the childhood relations of the gambler and his parents. Explaining gambling in terms of the personality of the individual is an example of distal causation. The proximal cause of gambling will be such that it structures and motivates the gambling behaviour observed. Proximal causes are likely to be either behavioural, as when we link the gambling response to the immediate stimuli and conditioning history of the individual, or cognitive, as when we see the gambling behaviour as the consequence of the positive evaluation of gambling with respect to its alternatives (Walker, 1992, pp. 92-93).”

For the present literature, the explanation of problem gambling has largely been delineated into five major perspectives; namely, psychodynamic, cognitive, behavioural, physiological, and social. In this review, each perspective will be covered in depth.

Psychodynamic Theory

Psychoanalytic theories were the earliest to attempt an explanation of problem gambling. The fundamental concept of this approach is that problem gambling is the product of deep-rooted pathology of personal inadequacy and inferiority in the person's

unconsciousness (Aasved, 2002, p.19). According to this perspective, gambling is motivated by the gratification of instinctual impulses and the dynamics of gambling behaviour and problem gambling can be traced to relationships in childhood. The first psychoanalytic writer to investigate the topic was Hans Von Hattingberg (Rosenthal, 1987). Working in the psychoanalytic tradition, Von Hattingberg argued that gambling is a fixated behaviour emerging from childhood relationships. A person's love of gambling might be a result of frustration and punishment for unchecked eliminative functions of urination and defecation during the anal stage. In Von Hattingberg's proposal, gambling serves as means of coping with the anger and guilt of everyday life. The basic argument of this approach is that gambling is a product of fixation of the anal stage. In the psychoanalytic tradition, children derive autoerotic pleasure from urination and defecation by holding their urine and feces and delaying elimination to achieve urethral- and anal-erotic pleasure. For the psychoanalyst, the child's retention of feces is a form of anal masturbation and the act of defecation is an anal-orgasmic experience. Under such analysis, the feces is the first love object. According to this perspective, gambling, with its emphasis on money, is only an extension of such anal pleasure when the child reaches adulthood.

William Stekel

In 1924, William Stekel proposed a more complete psychoanalytic view of the pathological gambler. Stekel (1924) suggested that gambling is motivated by a number of factors: namely, escapism, regression to childhood, exhibitionism, undesirable id impulses like repressed sexuality and incest and power concerns. Stekel believed that there are two types of gamblers: real gamblers and professional gamblers. The professional gambler is a person who gambles for money. In contrast, the real gambler seeks to escape or to flee into a fantasy world. The need for tension and release and craving for excitement is universal. As such, all have a propensity to gamble and gambling serves a vital emotional

and adjustment function.

In addition, Stekel was the first writer to acknowledge the irrational belief structures of gamblers. Gamblers, according to Stekel, are inclined to believe in supernatural powers in obtaining luck in gambling. The real gambler appeals to such powers by prayers and superstitious rituals. These irrational beliefs relate to an infantile attitude to fate and the supernatural. And lastly, Stekel believed that gambling represents a defensive mechanism of repressed sexuality.

The major criticism of Stekel's theory is that Stekel derived his ideas from his clinical patients. His claim that gambling was a sublimated action for incestuous desires was taken from one single case only, where a gambler, being frustrated by his unfaithful wife, received sexual gratification by masturbating with his sister's and mother's underwear. This type of argument, albeit being non-scientific in the modern sense, was shared by many of his contemporaries in the psychoanalytic tradition.

Sigmund Freud

Like many psychoanalytic writers, Freud (1928) understood compulsive gambling as a type of defense against repressed infantile sexuality. For him, masturbation was the root of all addictive disorders. In the famous case of Fyodor Dostoevsky, whose behavioural patterns fit many of the modern criteria of pathological gambling, namely: preoccupation with gambling, tolerance, craving, loss of control and damage to self and significant others, Freud saw a causal relationship between gambling and repressed childhood sexuality. In a largely creative effort, Freud linked pathological gambling to guilt and shame over masturbation in childhood. In this regard, Freud believed that the gambler's use of hand in gambling is crucial: this signifies a sublimated replacement function for touching and playing with one's penis. Further, for Freud, gambling is a masochistic act of self-punishment. Thus, for Freud, the real gambler does not play to win

but to lose.

One of the fundamental problems with the Freudian approach, as in the case of William Stekel, is that Freud's research was largely based on case studies and the validity of his findings is doubtful. Secondly, his theory of repressed guilt over masturbation may also be problematic as, in some cultures, such as in Japan, for example, masturbation is not a serious taboo. Yet, there are many problem gamblers in Japan.

Compared to the more sexually repressive Victorian era, modern societies hold permissive attitudes towards sex. Although the extent of repressed guilt over masturbation must have abated substantially, problem gambling has shown no sign of decline. Also, the notion of using hand to gamble as the substitute for masturbation cannot explain the recent proliferation of internet gambling.

Edmund Bergler

As a psychoanalyst, Bergler obtained his data from his patients. In his classic book, *The Psychology of Gambling* (1957), he chronicled his treatment of 60 patients using traditional psychoanalytic techniques. In his analysis, gamblers play not to win but to lose. This unconscious desire stems from the deep-rooted guilt arising not from the phallic stage as Freud and Stekel proposed. Instead, the guilt stems from earlier fixations in the oral and anal stage. Thus, the basic psychosexual conflicts come from undesirable weaning and/or toilet training during childhood.

For Bergler, the fundamental conflict is not the guilt arising from patricidal wishes engendered against the father figure during the phallic stage; instead, it is aggression engendered by frustration in the oral and anal stages. Such aggressive urges towards the parent are the major source of the child's vengeful feelings, through which unconscious efforts at self-punishment are manifested in adulthood. Bergler sees the vicious circle of gambling and resulting losses as indications of the gambler's unconscious wish to lose.

For Bergler, the ultimate motivation of a pathological gambler is not the winning of the jackpot; instead it is the desire to punish oneself.

Like Stekel, Bergler believed that the gambler regresses to childhood through repeated gambling, where the inner child seeks to achieve “megalomaniacal narcissism.” By this, Bergler is referring to the infantile omnipotent wish of the child, when the mother is always there to provide adequate care. In adulthood, the parental figure is replaced by fate, which the gambler is determined to test and challenge through gambling.

Lastly, the psychoanalytic perspective of problem gambling conceptualises that problem gambling is an attachment object (Bowlby, 1979). In this perspective, the gambler may experience a deep sense of unfulfilled needs, which stem from difficult childhood experiences and/or parenting problems. Problem gambling, in this regard, is an outgrowth of in-depth desire for an attachment figure.

Taken all together, the early psychoanalytic views offer a viable explanation for gambling. These perspectives, albeit being brilliantly constructed through case histories, lack scientific empirical data to validate their claims. The majority of the proponents in the psychoanalytic tradition were treatment specialists who obtained their data from field work and observation. As in any case study in psychological studies, the theories derived need concurrent validation from other sources. Unfortunately, this has not been the case with the majority of the psychoanalytic writers. The largest pool of subjects is from Bergler’s study ($N=60$). The author suggests that the success rate for psychoanalytic intervention is 75%. However, Bergler fails to back up his claim by follow-up investigations.

Contemporary psychodynamic writers, however, do not stress much on the repressed sexuality of the gambler’s development. Instead, theories based on a neo-Freudian perspective put more emphasis on the subjective world and current

functioning of the gambler. For instance, Rosenthal (1987) emphasizes the defensive mechanisms that pathological gamblers employ in their daily lives. Such a here and now approach can help the therapist to more accurately and appropriately treat patients.

Rosenthal believes that the five major defense mechanisms are omnipotence (the belief that they can control everything and the wishful thinking of winning the final jackpot), splitting (the gambler's tendency to think about himself/herself as two persons), idealisation and devaluation of others (i.e., the gambler's inclination to see all others as either flawless or useless), projection (the externalisation of their own feelings and problems onto others) and denial (habitual lying to themselves and others about their own problems). By focusing on these characteristics, the therapist can better understand the severity of the problems the gamblers face.

Cognitive theory of gambling

The cognitive theory of pathological gambling posits that pathological gambling is the consequence of faulty thinking and a resulting maladaptive gambling behaviour.

Proponents of this approach believe that the major root of problem gambling is to be found in the irrational beliefs that induce a person to begin the gambling process, to persist in gambling and to relapse to gambling even after gambling has ceased. Walker (1992) has made an excellent summary of the cognitive basis of pathological gambling. The cognitive biases of gamblers include the various types of irrational thinking of pathological gamblers; namely gambler's fallacy, illusion of control, biased estimate of probability, chasing losses, and superstitious beliefs. In the following analysis, each of these beliefs will be discussed with reference to the most recent research findings. These concepts in cognitive psychology do not intend to be exclusive; rather many of these theories complement each other in constructing how one's thoughts can influence one's decision making in the initiation and the maintenance of gambling behaviour.

Dickerson (1984) has presented a cognitive perspective on the world of gamblers in order to explain why compulsive gamblers persist in gambling. Two particular cognitive patterns of compulsive gamblers are the gambler's fallacy and the illusion of control. The gambler's fallacy refers to "the gambler's over-estimation of likely success on a bet, following a sequence of incorrect predictions or losing..... The illusion of control has been used to refer to situations in which people treat chance events as if they were under their control, or perceive games of chance as games of skill." (Dickerson, 1984, p. 29). In brief, the gambler's fallacy is the belief that chance events are dependent on each other and that past events have a bearing over the outcome of future events. Thus, in the case of a roulette game, after a series of odd numbers, the gambler may believe that an even number is "due" to come. There are two types of gambler's fallacy. Type I fallacy refers to the notion that, after a series of particular outcomes in a gambling situation, e.g. a series of heads in a coin toss, the opposite outcome is "bound" to come in order to "balance out" the overall probability of events. Type II fallacy is just the opposite: it posits that after a string of heads in a coin toss event, it will stay that way in the upcoming events.

A more complete understanding of the cognitive approach is offered by Michael Walker in *The Psychology of Gambling* (1992), where he presents a socio-cognitive theory of gambling. Walker begins his argument that gamblers differ in their motivation and pattern of gambling. He gives the analogy of a filtering system as people become involved in gambling with different and possibly diverse motivations and intensities (pp. 134-135). Initially, almost all are uninvolved with gambling. Some never gamble, while most gamble occasionally. It is only a small proportion of individuals who develop gambling problems. According to Walker, "...in principle, any person could develop a problem in gambling and the theory attempts to specify the kinds of processes (social and cognitive) which lead a person into increasing involvement in gambling (Walker, p.134)."

In Walker's terminology, problem or excessive gambling is never a consequence of childhood development, nor is it a biological problem: it is mainly a problem of irrational thinking. Such thinking is characterized by three social psychological processes, namely (a) illusion of control, (b) biased evaluation of gambling outcomes and (c) entrapment (Walker, p. 147).

Gambler irrationality as an illusion of control has been demonstrated experimentally by Langer (1975), who defines illusion of control as an expectancy of a personal success probability inappropriately higher than the objective probability would warrant. In a series of pioneering studies on the concept, Langer found that people tended to hold a biased perception over chanced situations if they were allowed to exert a certain control on the gambling process. In one of these experiments, the subjects were allowed to choose and buy their raffle tickets for US\$1. Then, after the purchase, when asked how much they would be willing to sell their tickets to others, the average selling price was an amazing US\$8-\$72. Thus, by simply allowing the individuals to choose their tickets, people might have more confidence in winning.

Langer (1975) further brings up the notion of "skill cue." Skill cues include properties such as competition, familiarity, and cognitive activity. Illusions of control often arise when there is at least one skill cue in the gambling situation. People become more confident and behave as if they are able to control the outcomes of chance events. Thus, gamblers usually regard success as resulting from their controlling the results when there is at least one skill cue. For example, gamblers believe that touching their favorite cards with their index finger will bring them good luck. Then they will possess the power to control, or at least influence, the outcome of their bets.

The gambler's illusion of control over the outcome of gambling is best illustrated by their indulgence in superstitious beliefs. Superstition is an idea or practice based on the

belief that certain events cannot be explained by human rationality or physical laws and which people adhere to strongly (Ohtsuka & Chan, 2010). Most superstitious beliefs were developed long ago from the rituals of the earliest religions. People in the ancient world might use superstitious beliefs to discover or explain why and how things happen. In times of uncertainty, stress, or perceived helplessness, people tend to seek personal control over events by means of superstitions. In many cultures, children have been socialised into believing in magic and superstitious beliefs by watching and modeling their behaviour on that of their significant others. Therefore, if their parents or peers carry lucky charms, or do not walk under ladders, children are likely to imitate that behaviour (Vyse, 1997).

Aasved (2002) proposes that superstitious behaviour found in humans is learned in a social context. This type of learning comes from the examples set by others and reinforced through the rewards of social approval and acceptance. As such, if a gambler wears a lucky charm during a game of chance and subsequently wins, the superstitious belief is reinforced through the reward of winning. This phenomenon has been demonstrated in Bersabe and Arias's (2000) experiment. If the gamblers in the first five throws won more while wearing a bio-magnetic bracelet (positive contingency), they would then consider it as a lucky charm. In the same line of thinking, if the gamblers in the first five threw lost while wearing the bracelet, they would feel less confident of subsequent winning.

Wagenaar (1988) has delineated a crucial difference between luck and chance. Luck is more related to unexpected positive events whereas chance is more of a surprising coincidence. In a study with 412 bingo players in England, Griffiths and Bingham (2003) separated superstitious beliefs into two types: namely general superstitious beliefs and beliefs that are specific to bingo. The study discovered that a great majority of bingo players endorsed "everyday" superstitious beliefs such as the idea that the number "13" was

unlucky and avoidance of walking under ladders. Women players were found to be more likely than men to believe in superstitious beliefs specific to bingo like using different colored pencils to change bad luck.

Superstitious beliefs serve the function of filling in the gap between subjective hope of winning and the objective chances of winning. In a study of mahjong players in Macau, Ohtsuka and Chan (2010) found that gamblers, when compared to non-gamblers, ascribe to common superstitious beliefs. Examples of such beliefs are “going to the bathroom to change luck after a series of losses,” “wearing red underwear to strengthen luck,” and “tapping on shoulders to bring bad luck to the opponents.” Such behavioural superstitions are intended to bring good luck or to reverse one’s string of bad luck. As such, superstitious behaviour tends to give the gamblers the courage and, perhaps, the stamina, to continue to gamble in face of adversities. As such, these behavioural superstitions, at least among the Chinese mahjong players, are functional and beneficial for the maintenance of gambling behaviour. The study finds support to the claims of Ohtsuka and Ohtsuka (2010) that fate, for Vietnamese gamblers, is never static: it is amenable to change through personal endeavour.

One interesting finding of Ohtsuka and Chan (2010) is that many non-gamblers, like gamblers, subscribed to a good number of these superstitious beliefs. It appeared that superstitious beliefs might well be a part of the cultural heritage of Hong Kong and Macau. While superstitious beliefs were linked to problem gambling among Chinese, non-problem gamblers also believed in culture-specific superstitious beliefs.

Comparable results have been reported in Scotland. Moodie (2008) in his survey of 1,483 college students in Scotland found that probable problem gamblers endorsed more irrational beliefs than non-gamblers. In a study of Vietnamese Australian gamblers, Ohtsuka and Ohtsuka (2010) reported that gamblers held both universal and

culture-specific schemas to explain luck and winning in gambling. More specifically, the Vietnamese Australians took gambling success (winning) as being associated with positive internal qualities such as intelligence and skill whereas failure (losses) was attributed to external factors such as distraction or bad luck.

The second social psychological process of the gamblers' irrational thinking Walker names is the biased evaluation of outcomes (Walker, p.p.142-144). Here, Walker argues that gamblers have a tendency to justify their wins and explain away their losses. This is a manifestation of the self-serving bias which is an unconscious attempt to protect the self from blame and potential hurt. It is most prevalent in near miss situations, where the gamblers barely miss the target (Reid, 1985). A good example is found in soccer betting. When the gambler's team barely misses an easy goal opportunity, he is very likely to attribute the loss to bad luck or even a fluke or a "fixed" game designed by the players and the coaches. This interpretation of the gambling outcomes is intended, rather unconsciously on the part of the gambler, to confirm the correctness of his bet. With this, the gambler would then be able to continue on their gambling behaviour.

In this vein of thought, Issac (2001) has looked at the cognitive world of gamblers as expressed in the literature of movies and novels. He proposes that gamblers demonstrate irrationality in their behavioural patterns. The scope of this irrationality is evident in their biased estimates of the probability of winning and in their persistence in betting and chasing after loss. With repeated chasing, the gamblers may incur a huge amount of debt. Borrowing and bailouts from friends and relatives are the usual consequence.

The third social psychological process Walker points out is entrapment in gambling games (1992, p.p.144-147). The phenomenon of entrapment is defined as "a decision making process whereby individuals escalate their commitment to a previously

chosen, though failing, course of action in order to justify or 'make good on' prior investments (Brockner & Rubin, 1985, p.5)." Walker uses the example of lottery tickets to illustrate the concept. Most people choose the numbers out of their birthdays, personal lucky numbers, residential address or even common lucky numbers. Once players have started the behavioural pattern of purchasing the lottery tickets on a regular basis, entrapment may come in as the players would then believe their numbers are due to come out. Here the concept of entrapment is closely related to the Type I gambler's fallacy, where the gamblers believe after a series of misses that the winning number is due to come.

One of the consequences of entrapment is chasing one's losses. After losing a lot of money, gamblers will escalate their commitment to gamble and to "chase" their loss through persistent participation. Chasing means to continue the gambling behaviour to recoup one's losses. Normally, chasing implies continued investment of funds into the gambling process. Thus, in repeated chasing, the gambler needs to borrow money from friends and relatives to finance their gambling career. Chasing can be classified into two parts: within session chasing and between session chasing. Within session means that the gambler would continue to gamble within one gambling day or session. In the case of horse racing, within session chasing would involve the gambler, after incurring losses in the first few races, increasing the bet on the subsequent races of the day. Between sessions chasing is returning to the gambling venue on the next day to recoup one's losses. Chasing behaviour is a common characteristic of gamblers and, in the DSM IV-TR (American Psychiatric Association, 2000), chasing is included as one of the symptoms of pathological gambling.

Walker's position has found support in recent studies of gambling. Orford and his colleagues (2001), for example, have made a comprehensive study of the cognitive theory of problem gambling. The authors have included superstitious thinking and other

“common cognitive biases and distortions” such as the gambler’s fallacy, entrapment, unrealistic optimism, illusion of control, erroneous beliefs and biased evaluation of outcomes (Orford, Sproston, Erens, Wite, & Mitchell, 2001, p. 127) as causes of problematic gambling. According to these authors, people gamble excessively because they have cognitive biases.

The cognitive approach assumes that problem or excessive gambling is solely the consequence of faulty thinking processes. Cognitive theorists believe that treatment of gambling should entail cognitive reconstructing, teaching and training about the probability of games and the correction of biased estimates of outcomes. This perspective fails, however, to take into account the developmental or behavioural aspects of gambling. The basic premise of this approach is that people are rational and sensitive to change and help. While this approach may seem plausible, it fails to investigate the immediate environmental stimulus that controls the gamblers’ behaviour and life. In the narrative stories of gamblers, one of the common themes is not that they do not understand the probability of games, or the effects of chasing: individuals continue to gamble because they lack control of their gambling behaviour, especially in circumstances where the cues of gambling are present (Chan & Ohtsuka, 2009a). In this regard, the behavioural approach would complement the inadequacies of the cognitive approach in explaining a gambler’s acquisition and maintenance of gambling behaviour.

The Behavioural theory of problem gambling

Learning theories are important in the development and maintenance of gambling behaviour. There are three types of learning: namely, classical conditioning, operant conditioning and social learning. Each of these theories is important and will be discussed in detail in the following section.

Learning is the relative change of behaviour due to one's experience (Skinner, 1938). In the classical experiments into learning, changed behaviour is demonstrated to be the consequence of the pairing of two stimuli, where a conditional stimulus (CS) pairs with and predicts the concurrence of an unconditional stimulus (UCS). In the area of gambling, the unconditional stimulus can be money (which is basically a conditioned stimulus when it is paired with primary reinforcers such as food, security and possibly sex), excitement or, a venue of escape.

The basic attraction of gambling is the acquisition of money or the hope of winning more money (Walker, 1992, p.118-119). Thus, in gambling, the venue and the game (CS) is constantly paired with money, fun, excitement and happy moments (UCS). Thus, when the gambler is in the casino, he is frequently surrounded or even bombarded with noise and stimuli related to money. The casino, as a venue of gambling, attracts the gamblers by means of a number of architectural characteristics. The first is the basic layout of the modern casino. MacDonald and Eadington (2008) have made a good comparison between the traditional casino and the newly developed casino. The traditional casino consists only of gambling and related facilities. In these casinos, the focal point is gambling and the dining and accommodation facilities are subsidiary to the gambling venue. New casinos, which the authors refer to as integrated resorts, are congregate resort facilities where the gambling floors account for less than 15% of the total area. Luxury shops, hotel facilities, restaurants and leisure and sport areas account for the rest of the resort. These resorts present the patrons with an image of a relaxing and fun venue rather than just a place for money and gambling. The pairing of luxury lifestyle, fine dining and excitement with gambling help present gambling as an integral element of a dream world.

The recent development of casinos in Macau is a very good example. In an area

smaller than Las Vegas or less than one third of the area of Melbourne, Macau houses over 33 casinos, each with a different genre and theme. For example, the American gambling operator Las Vegas Sands has operated a number of casinos in Macau, one of which is called the Venetians. In this resort, the company has created buildings similar to the buildings in Venice. In addition to gaming, the company has sponsored a number of cultural events such as concerts, sports events and the Miss Macau Pageant. In the Four Seasons, a five star hotel of Las Vegas Sands, the customers can enjoy dining from famous French chefs and shopping at luxury brand boutiques such as Louis Vuitton, Gucci and Prada, in addition to excitement and fun at the gambling tables of the casinos.

Classical conditioning principles can also be applied to explain the acquisition of the gambling habit. If gambling is associated with positive events such as family festivals and dining, the behaviour can be easily established early in childhood. Blaszczynski and Nower (2002) have demonstrated that, among all pathological gamblers, the first crucial element in their development of gambling is proximity to gambling. This implies that problem gambling is a more likely outcome for people who have grown up in a gambling family or have been raised in a gambling environment. On this point, Papineau (2005) asserts that early family influences can be crucial factors in the upbringing of Chinese children. Gambling is often associated with family games and activities, especially during traditional holidays.

In China and among the Chinese diaspora, mahjong is considered as the prototype of all Chinese family games (Ohtsuka & Chan, 2010). There are many versions of mahjong, the most popular kind being the Cantonese version. In this version, four players are seated on a table and are given a deck of 13 mahjong tiles at the beginning of the game. Then they can draw new tiles and discard unusable ones, which can be taken up by other players. The winning player is the one who achieves a winning set in the fastest

time. The winner collects money from the other three players. In the Cantonese version, the number of game sets is fixed to multiples of four. So the players can play four sets, eight sets or twelve sets and so on. For skilful players, four sets of mahjong may usually take 2 hours to play.

Why is mahjong so popular among Chinese people? Ohtsuka and Chan (2010) have suggested that the popularity of mahjong can be explained by concepts of classical learning and social learning. Firstly, as previously mentioned, for the majority of the Chinese people, mahjong is often associated with family fun and entertainment. Very often, parents serve as modeling agents, who introduce the game to young children. In observing their parents playing mahjong, Chinese children learn to internalise the rules and principles of the game. Thus, in referring to mahjong, people tend to describe the game as a form of play, rather than a form of gambling. Also operant conditioning can be applicable here as people enjoy gossip and good food after the games. This is a good game for social interaction among friends and relatives, especially during cultural festivals

Secondly, the nature of the game demands a certain amount of skills embedded in what is a mostly a game of chance. With repeated training and exposure, one can enhance one's skills and thus have a better of chance of winning. During the process of each mahjong set, a certain level of cognitive decision making and risk assessment is required, as the player has to balance between his needs and the needs of his opponents. Such cognitive endeavour adds elements of control and excitement to the monotonous city lives of many, especially among non-working housewives. Herman (1967) has argued that in games that require substantial mental effort, the gambler gambles not just for the money: it is the intellectual exercise and the subsequent decision making that make the game attractive and challenging. Herman, in his study of the race track writes:

“Decision making requires of players that they study the past performance

records, ponder the tote board, consider reasonable lines of action, estimate probabilities, risk money, and collect the fruits of their actions. Though on a smaller scale, they emulate traditional, entrepreneurial roles – weighing alternatives, making decisions, and signaling these decisions by attaching money to them (Herman, 1967, p.101-102).”

While Herman’s view describes the underlying motivation of male gamblers as being based on the exercise of skill, obviously not all gamblers gamble from this perspective. In fact, a substantial portion of female gamblers are known to gamble for a different reason (Ohtsuka & Chan, 2009). In Hong Kong and Macau, housewives like to play a few hours of mahjong games in the afternoon. It is a time after children have come back from school and before their husbands return from work. Mahjong is a good game for casual social interaction involving gossip and challenging mental exercise and fun. Popular Chinese movies often, however, cast a sarcastic perspective on women’s gambling (Ohtsuka & Chan, 2009). While male gamblers are given titles such as “God of Gamblers” or “Saint of Gamblers” in Chinese contemporary movies, women gamblers are often denigrated as “desperate housewives,” who gamble out of depression and emotional concerns. In the movies that feature female gambling, the characters are often associated with emotional problems. Thus, mahjong is often taken as a motivation of escape for the female gamblers.

In addition to principles of classical and social learning, operant conditioning has been instrumental in the shaping and development of gambling behaviour. The pioneer work in investigating the relationship between learning and behaviour was done by the late B. F. Skinner. In operant conditioning, learning is based on the consequences of behaviour (Skinner, 1938). In the context of gambling, operant conditioning is applicable when the gambling behaviour is rewarded with the award of gambling, namely, money,

excitement, social approval or simply the company of others.

Delfabbro (2008) has made a critical summary of how operant conditioning can be applied to gambling on electronic gaming machines (EGMs). He writes:

“Although most forms of gambling could arguably be described in terms of these operant principles and in terms of schedules of reinforcement, EGMs provide perhaps the best example because of their capacity to maintain both persistent and also very rapid, rates of behaviour. EGMs are based upon a special form of variable ratio schedule called a random ratio (RR) schedule. A VR-10, for example, would be created by running a random number generator based on a seed value of 20, and getting numbers that lie in the range of 1-20, but which average 10 (i.e., 10 responses before the next reward), or 1 in 10 responses. By contrast, on an RR the number of trials between each reward would be generated by counting off the number of trials until the random number generator produced a 19 or 20 (or any 2 numbers). In the long run, this would also yield a $2/20=1$ in 10 hit-rate, but it is possible that some of the intervals could be considerably longer than 20 if no 19 or 20 was generated for a long time (Delfabbro, 2008, p. 115).”

The RR schedule is found to be highly effective in maintaining behaviour once the behaviour has been established. Delfabbro (2008) attributes this phenomenon to a “partial reinforcement extinction effect.” In the context of gambling, gamblers who have experienced a long period of losses might find reward eventually, which, of course, happens by chance. In this circumstance, the gambler willingly endures the “non-reward” period in the expectation of the anticipated reward. Indeed, the longer the waiting period, the greater the expectation of reward, and, as a result, the gambling behaviour persists.

The partial reinforcement extinction effect cannot, however, fully explain why people persist in gambling even though they persistently lose. On this, Coventry (2002)

suggests that arousal, as a powerful reinforcer, can motivate the high frequency gambler to continue gambling even after repeated losses. The importance of arousal in gambling has been investigated by Brown (1986), who argues that gamblers gamble to reach a pleasant state of arousal or dissociative state, or both. In this regard, the excitement of gambling is a potential and sufficient motivation; whether the gambling is reinforced with monetary gains is not important.

Further, Brown (2002) found that addicted gamblers always recall a trance state during gambling. Very often, the gambler might feel that he/she is a totally different person or outside of himself/herself. On this, Brown writes: “the dissociation is an epiphenomenon of high states of arousal which produce narrowing of attention and increased probability of access to desire dissociated states with concurrent altered cognitive and decision making phenomena (Brown, 2002, p. 215).” This dissociated state might present an oasis for depressed gamblers, who employ gambling as a form of escape.

In the typology presented by Blaszczynski and Nower (2002), a significant group of gamblers are identified as having been emotionally vulnerable individuals prior to the acquisition of their gambling habit. For them, gambling, especially in a noisy casino environment, is basically a self-hypnotic induction routine, where the person seeks a mildly dissociated state away from personal problems. This dissociated state is often associated with high arousal and the illusion of personal power and control. Thus, for Brown and Coventry, gambling behaviour, with its associated affective components, is a very powerful reinforcer by and in itself, especially for serious gamblers.

Physiological view of Problem Gambling

The physiological view of problem gambling explains problem gambling as a biological problem. In this vein of thought, problem gambling might be a result of inborn heritage or biological functioning. Tammik (2002) has made a critical analysis of the

current state of research on this issue. The argument is based on two main hypotheses: namely, Elderman's (1992) theory of neuronal group selection and Blum et al.'s (1996) dopamine hypothesis.

Working from the evolutionary paradigm of human behaviour, Elderman (1992) proposes that the experiential selection process of an individual's lifelong learning can strengthen or weaken connections within and among the numerous networking neural maps of the person. Connections that are strengthened are those that help the individual to adjust and adapt favorably to the environment. In the same manner, connections that are unsuccessful in helping the person are weakened. Further, the brain releases a higher level of dopamine, which may function as a reward basis for encouraging survival-enhancing behaviour.

Blum (1996) hypothesizes that certain persons can inherit different degrees of genetic predisposition which give rise to gambling addictions. Blum argues that such individuals are suffering from a "reward deficiency syndrome," a particular neurochemical imbalance that affects the signals of the various reward centers in the brain. By nature, these persons are more prone to anxiety and depressed emotions. Thus, they may employ addictive activities such as gambling, sexual activities and the over-consumption of alcohol to alleviate their moods. Blum further suggests that, for excessive gamblers, gambling activities are reinforcing as these activities can raise the dopamine levels in the pleasure centers of their brains located in the limbic system that regulates moods, memories and motivation. Thus, for them, gambling activities per se are rewarding regardless of the outcomes of gambling, which usually entails monetary losses and regretful feelings.

Blum's position has been supported by researchers in addiction research. For example, Herscovitch (1999) has found a lot of similar characteristics in his comparison study of alcoholics and compulsive gamblers. These characteristics include the need for

immediate gratification, immaturity, defensiveness, and changes in personality, mood swing and denial. Thus, it is possible that these two types of addictions might come from an inborn dopamine imbalance.

Also, in a series of studies on gambling addictions, Shaffer (1996) has demonstrated that, among persons with disordered gambling, gambling activity might trigger an elevation of dopamine activity, which in turn activates the “pleasure circuit” in the brain. The person then has a subjective feeling of excitement and/or pleasure. Thus, treatment to these individuals should include psychopharmacological medication that alters the level of dopamine.

Recent research into addiction has supported the notion of a physiological basis for gambling addiction. Castro, Fong, Rosenthal and Tavares (2007) have investigated the comparison between gambling addiction and alcohol addiction. 50 pathological gamblers and 42 alcohol dependent participants were compared regarding craving, emotional states and social functioning. The researchers found that the gamblers had a higher craving than the alcohol addicted individuals. Further, craving for gambling and alcohol had a significant correlation with emotional states. Craving for gambling was inversely correlated with positive affects while craving for alcohol was directly correlated with negative affects. This research project supports the hypothesis that pathological gambling is a biologically- based problem.

Recent research into medical intervention has demonstrated that medication has been effective in reducing gambling addiction (Fong, personal communication, 2008). In a well-controlled study of 21 pathological gamblers, Fong et al. (2008) found that olanzapine can be effective in reducing gambling urges, frequency of gambling and self-reported anxiety levels. Timothy Fong is the head of a research team in the University of California, Los Angeles. He and his team have found that naltrexone has

been effective in reducing gambling urges among excessive gamblers in treatment. According to Fong (2009), the dopaminergic system, which influences reward, motivation, and appetitive urges have been shown to be related to gambling addiction. Association has been implicated between dopamine agonists, Parkinson's disease and pathological gambling. Patients with Parkinson's disease, with no previous histories of gambling, are reported to be attracted to gambling after taking medications that contain dopamine agonists. This discovery leads medical researchers to speculate regarding the connection between dopamine reward pathways and the development of gambling.

In recent years, Fong and his associates in UCLA have been working on pharmacological intervention in treating pathological gambling. In a number of clinical trials with pathological gamblers, medication with the opiate agonists naltrexone and nalmefene has been effective in reducing thoughts and urges about gambling among gamblers (Fong, personal communication, May 27th, 2009). Naltrexone has been useful in reducing the craving of gamblers. In Fong's research, participants on regular doses of naltrexone were found to be able to refrain from gambling. A low dose of nalmefene (25mg/day) was found to be effective in helping the participants to stop gambling. Higher dosages (50 mg and 100mg per day) might produce intolerable side effects just as nausea, insomnia, and dizziness (Grant, Potenza, Hollander, Cunningham-Williams, Nurminen, Smits, & Kallio, 2006). The research findings support the proposition that treatment of pathological gambling should include pharmacological intervention.

These research findings support the view that one's behavioural and personality pattern is the outcome of one's biological heritage. This argument is clearly important to the design of treatment plans for gamblers. Tammik writes: "Highly individualized

treatment plans for problem gamblers should perhaps include components to learn to develop a greater diversity of less addictive alternative consciousness shifting activities. Encouraging clients to learn theater acting, sports or musical performance or meditation might, for example, help them develop a greater diversity of potentially consciousness-shifting activities as they reduce their singular focus and dependency on gambling activities. In this way, their inherited dispositional tendencies could be rechanneled towards more diverse and equally satisfying, but less personally and socially destructive, alternatives for altering their consciousness (Tammik, 2002, p. 102).”

The above section shows that biological disposition and the acquired values of a person can be a decisive factor in influencing his behaviour and, of course, specifically in the development and maintenance of gambling behaviour. This throws a challenging question to the behavioural scientist: can one control one’s behaviour? Or do one’s biological dispositions shape one’s behaviour? In a keynote address to the National Association of Gambling Studies (NAGS) in 2008, Alex Blaszczynski (2008) has traced the current biological advances in the etiology of problem gambling. However, he argues that one’s biological dispositions cannot alone determine and shape one’s behaviour totally. Instead factors such as motivational factors, the personality patterns of the individual and situational factors can all contribute to one’s choice of behaviour. In other words, our mind should control our body and not vice versa.

Recent research into the treatment of gamblers has also provided support to the mind over behaviour debate. Chan and Ohtsuka (2010a) have chronicled the treatment of 17 problem gamblers in gambling anonymous meetings in Hong Kong. 16 of the 17 were diagnosed as problem gamblers by the CPGI. Some of them have gambled for over 30 years and they demonstrated almost of all the symptoms of pathological gambling according to the DSM IV-TR. One of them is a 60 year old male gambler, Don

(Anonymous name), who started gambling at 9. He has been a avid gambler for over 30 years. He has participated in every form of gambling, has often chased losses and has incurred a huge amount personal debt. He came from a good wealthy family, and reportedly, he has lost HK 30 million (roughly around 4.8 million AUD) over the years. He started to join the anonymous meetings in 2005. Through prayers and “mental control,” he has been able to achieve abstinence for 5 years. There are a number of similar cases among the members. Thus, this clearly demonstrates that a person should be able to control their gambling.

The above sections have outlined the various perspectives that shape and help gambling behaviour. Gamblers are a heterogeneous group of individuals. Each theory can help explain different types of gamblers. Among the many perspectives, the present investigation emphasises the role of personality and social conditions that shape one’s gambling. The Blaszcznski and Nower (2002) pathways model incorporates a person’s biological, social and personality variables into the understanding of problem gambling. Thus, it is taken as the theoretical framework of this study.

Social Construction of Problem Gamblers

Aasved (2002) has made an excellent summary of the understanding of problem gambling from a sociological perspective. Sociological theories attempt to explain problem gambling from a functional view. According to this view, problem gambling is a result of particular social conditions and problem gambling serves a particular function to help individuals to adjust and adapt to the demands of society. The following is a survey of the notable theories and research into the social construction of problem gamblers.

Edward Devereux (1968) attempts to understand gambling from a structural-functional view. According to this perspective, gambling fulfills three vital functions in society, namely (a) providing a safety valve to marginalized groups, (b) giving

hope to the disillusioned and hopeless individuals and (c) maintaining the status quo in society.

The first function that gambling fulfils is as a safety valve for society.

Devereux's proposition is that in the western industrialised countries, values associated with capitalism and traditional puritan Protestant ethics often generate a great deal of tension and conflict within individuals. The values associated with capitalism include competitiveness and individualism, acquisitiveness and consumption, hedonism and a desire for leisure and personal wealth. Not everyone, of course, can achieve the goals implicit in these values. On the other side of the coin, the traditional Christian ethics of obedience and conformity to law present a lot of frustration amongst marginalised groups in society. Now gambling can fit in nicely as the society's safety valve as it gives the frustrated persons opportunities in the capitalist world such as decision making, risk taking and the potential of winning a large sum of money in a short time.

The second function Devereux identifies is that gambling presents hope for the lower classes. Hope can be distinguished into two types, namely, long-term hope and short-term hope. Long term hope is something people look for years ahead of their lives, for example retirement benefits, life savings and a comfortable retirement. Some, especially those with a religious outlook, even look forward to heaven or a life after death. Short-term hope entails something that is immediate in one's life, i.e. money for food and rent, peaceful feelings or an escape from personal pain and depressed moods. Devereux argues that gambling offers hope for those without hope, specifically to those who do not have comfortable and secure earnings. In gambling, these individuals can find a glimpse of hope, mostly of a short term nature, that is otherwise denied to them.

Thirdly, Devereux argues that gambling helps to maintain and preserve the social system. Legalized gambling allows individuals to gamble in the hope of getting an instant

fortune. It offers the possibility of easing, or even ending, the frustration of lowly paid workers and individuals on welfare. In gambling, they find their dream and possibly an escape in life. Thus, legalized gambling helps to maintain the status quo in society.

Devereux's ideas borrow much from alienation theory in sociology. Aasved (2003) presents an excellent summary of alienation theory:

“Alienation, as the term is used by sociologists, refers to a condition in which certain individuals are removed from the decision-making processes which govern the greater part of their daily lives. Although this term has sometimes been equated with the lack of job satisfaction in general, it has more often been used in a specifically Marxist sense. Many sociologists believe that the advent of modern industrialization, with its time clocks, monotonous assembly line labor, and large bureaucratic organizations, has caused workers to feel uncreative, isolated, unable to exercise any initiative, and lacking any meaning of control in their lives. Consequently, many of the first sociologists to consider gambling attributed it to the strong feelings of alienation encountered by a large segment of society (Aasved, 2003, p.27).”

Recent empirical research has lent support to Devereux's argument. In the prevalence study in the United Kingdom, the involvement of gambling was found to be inversely related to socio-economic status (Wardle et al., 2007). It was found that the poorest sector of society invested a larger portion of their disposable income to gambling when compared to the relatively well-off individuals. In Hong Kong, a recent territory- wide study (the University of Hong Kong, 2005) reported that people with a lower income tended to gamble more. The only legal gaming operator of betting in Hong Kong is the Hong Kong Jockey Club, which is a non-profit organization. The club contributes a major portion of the club's profits to charities. The club operates horse racing, Mark Six lottery and soccer

betting. Further, it operates a number of off-course betting shops all over Hong Kong. It is interesting to note that the off-course betting shops are more likely to be located in the low income housing areas. A lot of working class individuals spend their whole Saturdays in these shops, putting bets on horse races and soccer games.

In Macau, Fong and Ozorio (2005) conducted telephone interviews with 1,121 residents in Macau. Two-thirds of respondents stated that they had participated in gambling activities in the previous year. The three most popular forms of gambling were social gambling, Mark Six lottery, and soccer/basketball betting. 1.78% of respondents were classified as probable pathological gamblers and 2.5% could be classified as probable problem gamblers. Regression analysis of the data indicated that male respondents with a monthly personal income of less than MOP 8,000 (About AUD 1,176 on AUD\$1 equals to MOP 6.8) were more vulnerable to problem and pathological gambling.

Ginakis and Ohtsuka (2005) have found that gambling gives people short-term hope, especially for those who lack a sense of control in their lives. Thus, for the individuals on the lower spectrum of this society, gambling is functional as it gives hope for those who are otherwise unable to escape from the lives of everyday hardship and toil. In this vein of thought, poor people might be attracted to gambling more than affluent individuals (e.g., Brenner, 1986; Fong, 2009). Likewise, with the concentration of EGMs in low SES suburbs in Melbourne, Australia has been identified and criticised for allowing predatory business practices by gambling operators (Productivity Commission, 1997).

Why do individuals in the lower classes gamble even though the majority of them know they would lose in the casino? The late Noble prize laureate Milton Freedman proposed a convincing theory for this phenomenon. His theory, named the Friedman-Savage model of gambling and social climbing (Friedman & Savage, 1948),

proposes that gambling offers hope for the poor while insurance protects the wealth of the rich. The model explains the different income levels and risk tolerance for individuals from different social classes in society. Those in the low end of the society would most likely play in state lotteries with the distant hope of climbing up the social ladder. Those individuals already at the top layer of the society would not gamble as much as they already have the wealth. Instead, they are more inclined to take out insurance to protect their valuable resources. On the contrary, the poorest segment of the society would not gamble as they cannot afford even the lightest losses. Lastly, the majority of the society's middle class would do both: buying lottery tickets in the hope of advancing their social position and paying for insurance to protect what they possess.

Here the utility theory of gambling (Aavsed, 2003) suggests that gambling is functional in our society as it provides participants with a number of intrinsic and extrinsic opportunities and values. The intrinsic motivation includes the opportunity to play and to take risks. Play theorists often argue that gambling provides opportunities for play and entertainment (Abt, Smith & McGurrin, 1985; Caillois, 1961; Smith & Abt, 1984). In gambling, one can experience the emotional highs of betting and winning. Thus, the process of gambling is fun in itself. In a series of observations of the casinos of Macau, Lam (2007) reported that baccarat players enjoyed the process of gambling as much as the outcomes of gambling. Gamblers liked to rub and yell at the cards on the tables, discussed the patterns of card outcomes with other gamblers and simply enjoyed the vibrant atmosphere in the noisy casinos. Hence, the excitement of gambling presents an entertainment value for the gamblers, especially those who lead a monotonous and routine life in a big city. The benefits derived from this entertainment might form the basis of their gambling. In a discussion of the entertainment value of gambling, Ohtsuka and Ohtsuka (2010) wrote:

“Gambling, especially games of chance, treats each player equally affording the same odds of winning. Hence, theoretically speaking, an Aussie “battler” (a struggler to make a living) could compete against the rich opponents in gambling. This perception of gambling as a random redistribution system of wealth has a greater appeal to people from low SES than to the rich. Since new immigrants often lag behind to achieve economic parity with their mainstream counterparts. Hence, it is logical to deduce that the higher percentage of new Australians would find gambling more appealing comparing to Australians who settled earlier (Ohtsuka & Ohtsuka, p. 35).”

In their study of gamblers attending gamblers anonymous meetings in Hong Kong, Chan and Ohtsuka (2010a) discovered the importance of entertainment value in the maintenance of gambling behaviour. Most gamblers in the study reported that they started to participate in gambling activities such as mahjong and horse races when they were young. The word they employed to describe this engagement was not “gambling” or “賭” in Chinese but “play” or “玩” in Chinese. In their recollection, these activities were integral parts of their pastimes during their childhood. Very often they were introduced to gambling by members in the family. Among the first games they played was mahjong, a family game often shared by closed relatives during holidays.

This finding supports the argument of Oei and Raylu (2007) that Chinese gamblers often learn to gamble as they grow up in their families. The notion of “play” implies that Chinese gamblers often take consider gambling as to be a part of their hobby or fun-seeking activities. Gambling is described as simply an entertainment activity shared by friends and family. Reinforcement, then, is not derived from the winning of a large amount of money; what is important is the sharing, the fun, the excitement that come with

the games or even the sharing of food and drinks during the games.

In addition to entertainment value, the usefulness of gambling can be seen in the expected utility of the rewards of gambling (Hartley & Farrell, 2002). The absolute value of the rewards is not important; instead it is the expected utility that counts. Here, the expected utility is the fact that gamblers believe that the jackpot, no matter how distant that may be, is useful in their lives. A jackpot of ten thousand dollars in a Caribbean Stud game in the casino does not mean much to a professional accountant; but for a factory worker, that can be a life's savings. Hence, the expected utility of winning is more important than the actual possibility of winning – the distant hope of winning can sustain the continuous investment of time and money into gambling. While some would suggest that in the pursuit of a distant jackpot, gamblers are entrapped by the structures and the rewards of the games (Brockner & Rubin, 1985), in essence, gambling itself is functional as it presents an existential meaning for the individuals, especially those who have very little to look for in life.

To conclude, from a sociological perspective, gambling is a functional behaviour as it presents a safety valve to individuals at the lower socio-economic status (SES) of society. It gives them a favorite pastime and a hope. Such hope may play a role in the perpetuation of their gambling behaviour.

Treatment of problem gambling

This section on the treatment on pathological gambling is presented for two reasons. Firstly, a review of the literature regarding treatment is useful as it will help to assess the effectiveness of the current treatment of gamblers in Hong Kong and Macau. More importantly, it can help the development of a suitable treatment for the researched population in the current study.

The earliest report on the treatment of problem gambling was by treatment specialists in the psychodynamic traditions (e.g., Fernichel, 1945; Freud, 1928). Bergler (1957) reported the first comprehensive study of the treatment of problem gamblers. In his book, he chronicled the treatment of 60 patients. His therapy was grounded in the psychodynamic theory that gambling is a rebellion against an authority figure, usually the father figure. Such rebellion is, however, mixed with an unconscious hatred towards self. Thus, according to Bergler, the gambler has an unconscious wish to lose as a form of self-punishment. The therapist's role is then to help the patient to work through such guilt. Bergler reported that 45 out of the 60 patients recovered from his treatment. Bergler, however, failed to report any follow-up of these cases.

In the literature of clinical psychology, treatment of pathological gambling has received little interest from clinical researchers until relatively recently (Marotta, 2002). One of the major reasons for this lack of interest is that pathological gambling was not formally recognised as a disorder until 1980 when the Diagnostic and Statistical Manual of Mental Disorder (DSM III) (American Psychiatric Association, 1980) included it as an impulse control disorder. Since then, treatment specialists have reported a great variety of treatment modalities for pathological gambling (Rosenthal & Rugle, 1994; Sylvain, Ladouceur & Boisvert, 1997; Toneatto & Millar, 2004). In this review, each major treatment perspective will be reviewed in detail.

Group counselling was introduced as a treatment modality through the work of Robert Custer and Monsignor Joseph Dunne in the Veterans Administration Hospital in Brecksville, Ohio, USA. In the earliest inception of this treatment model, a number of different treatment methods were employed. These include stress management, couple therapy, assertiveness training, rational-emotive therapy, behavioural therapy and pharmacotherapy. In Hong Kong, group counselling has been widely employed as a

means of treatment for problem gamblers (Chan & Ohtsuka, 2010a). Usually, these meetings are held on a week-night. In a regular group meeting, the members are usually seated around in a circle. They are free to share and discuss how gambling has impacted on their lives and families. In addition, the meetings often carry a Christian perspective in Hong Kong. One problem with these groups is that dropout rates are high. Also, problem gambling is an intimate personal issue, and Chinese people need to save face in front of others. The actual success rate of group counselling might not be high. A review of the usefulness of the programs has indicated that peer counselling and support is the most powerful treatment tool in the program (Taber & McCormick, 1987).

A number of researchers have made a summary of the treatment methodologies for problem gamblers (e.g., Blaszczynski, 1998; Blaszczynski & Silove, 1995; Viets & Miller, 1997). Cognitive-behavioural therapies have been widely employed in the treatment of pathological gambling. These therapies aim at helping individuals develop adaptive coping skills and problem-solving strategies in handling their gambling habits. The emphasis is on the modification of gambling-related behaviour, reducing gambling expenditure, limiting access to gambling venues and the development of an adaptive and healthy lifestyle.

One therapeutic method is the exposure and response-prevention approach. Gamblers are exposed to stimuli that elicit the urges of gambling. These may include the noises of EGMs, the context of the casinos, the baccarat tables and casino music. In treating the gamblers, the therapist would ask the client to experience such stimuli, but, at the same time, the therapist would prevent the client from performing the corresponding behaviour, i.e. gambling. In other words, the treatment emphasises abstinence behaviour when the client is presented with the stimuli. The procedures intend to train the person to develop control over their gambling urges.

Exposure and response prevention is a powerful tool for achieving abstinence in gambling. This procedure can be done covertly. Blaszczynski, Drobny and Steel (2005) have demonstrated that imaginal desensitisation is a powerful and cost-effective cognitive-behavioural technique in helping gamblers. The procedure is simple. Firstly, the client learns to relax in a comfortable environment. Then, he/she is presented with the stimulus situation that elicits his gambling behaviour. He is asked to imagine through the process without gambling. A typical scenario is presented here:

“Imagine you are walking to the New Lisboa Casino. You notice the big entrance with a lot of people going in. You hesitate for a moment. It is your usual place of having fun. You go in eventually. Imagine you walk through the door. There are baccarat tables to your left. You look and look and try to figure out the “ways” or patterns of the game. After twenty minutes, you have a good hunch that the next round of card should favour the “Banker” and you want to bet MOP 200. Stop. Think about your family and children. They don’t want you to gamble. Think what would happen if you lose or your family finds out. You should walk out the casino. You decide this is the right thing to do. You stand up and walk away from the tables. You walk through the door and you have achieved control on your gambling.”

There are other cognitive-behaviour techniques that have proved useful in helping clients. These techniques include limiting access to gambling and money. In this approach, gamblers are told to refrain from entering any gambling premises or from associating with friends who might introduce them to gambling. Limiting the access to cash is more direct. Gamblers are told not to carry any credit cards or extra cash. On the positive side, gamblers are advised to join diversion programs that can redirect their energies and concerns away from gambling. This procedure is known as response

substitution.

Empirical studies have assessed the effectiveness of cognitive behavioural approaches. Bujold, Ladouceur, Sylvain and Boisvert (1994) included three elements in their treatment package of a small group of problem gamblers ($N=3$). These elements were the identification of erroneous beliefs, problem solving and relapse prevention. This treatment package proved to be successful as the gamblers reported having more control of their gambling. Follow-up periods of 3, 6 and 9 months indicated that the treatment was effective as the three gamblers were all able to abstain from gambling. An extended study that included cognitive correction, problem solving training, social skill training and relapse into the package also proved to be successful in correcting the cognitive distortions of the participants (Sylvain, Ladouceur & Boisvert, 1997).

One of the major problems of these investigations is the issue of validity. In order to be classified as empirically validated treatments (EVT; Chambess & Hollon, 1998), treatments have to be carried out by randomised clinical trials and have to be carried out by two separate teams. To date, very few investigations have employed such randomised controlled outcome studies (Blaszczynski, 2005). In an excellent review on the conceptual and methodological issues in outcome studies, Blaszczynski (2005) has outlined the challenges and concerns in studying the outcomes of treatment. On this he writes:

“Cognitive and behavioural therapies have some randomised controlled outcome data to support their effectiveness but the methodological problems associated with most studies prevent any definitive statement on evidence-based best practice guidelines for treatment. It is recommended that a multi-centre randomised outcome study using a set of consensually agreed to standardised assessment and outcome measures are carried out to evaluate the comparative effectiveness

and efficacy of several treatment interventions. These interventions should be applied in a uniformed manner with reported protocol compliance Blaszczynski (2005, p.10).”

In Hong Kong, the development of treatment for pathological gamblers is only in its infancy. In Hong Kong, treatment of gamblers is provided mainly by non-government agencies. These agencies are commissioned by the Home Affairs Bureau of the Hong Kong Government and they receive funding from the Ping Wo Fund. The Ping Wo Fund is sponsored by the Hong Kong Jockey Club. The four major counselling and treatment centres are operated by Caritas-Hong Kong (the major Catholic social services provider in Hong Kong), the Tung Wah Group of Hospital Even Centre (a social service agency of the Tung Wah Hospitals, a group of not-for-profit hospitals in Hong Kong), Zion Social Services Limited and Hong Kong Lutheran Social Services. The last two agencies are affiliated with Christian groups in Hong Kong. These four centres provide free counselling services, hold group counselling sessions and conduct research studies on gamblers.

Among the four centres, the Tung Wah Even Centre is the first major gambling treatment centre in Hong Kong. Established in 2003, it offers the most comprehensive treatment for problem gamblers in Hong Kong. The centre operates a hot-line, where problem gamblers and their families can call in 24 hours a day. Counselors are available to answer their questions and concerns. Also, there are counselors who provide individual counselling sessions to the gamblers. Usually, these counselors employ a cognitive-behavioural approach in their treatment. Clients are usually seen on a weekly basis and each session lasts about an hour. The centre also provides group counselling services and counsellor training for anyone who is interested in becoming a gambling counsellor.

In addition to these centres, there are a number of counselling services providers, which provide counselling services to gamblers without government funding. These groups are often run by the rehabilitated gamblers. Like the Tung Wah Even Centre, these centres offer free counselling services to clients and hold weekly group counselling sessions. Usually, these services receive donations from Christian groups. The researcher of this present study has served as a volunteer in one of these groups. He has helped to provide counsellor training for the counsellors and started a research project in the centre. This project intended to chronicle the pathways development of the problem gamblers seeking treatment in Hong Kong. A paper based on this project, titled “A study on the typology of Chinese gamblers in Hong Kong”, has just been presented to the recent Diversity in Health 2010 Conference in Melbourne (Chan & Ohtsuka, 2010a).

This study intended to typologise the Chinese gamblers attending the gamblers anonymous meetings in Hong Kong. The subjects were recruited from the two treatment centers that offer free group counselling for gamblers. All the active members were invited to join the study. A total of 17 participants (15 males and 2 female, aged from 21 to 56) were recruited. All the participants were assessed by a clinical interview based on the DSM IV-TR (American Psychiatric Association, 2000). The individual profiles were then assessed with the Blaszczynski and Nower (2002) pathways development model. It was found that the majority ($N=8$) of the participants were of the behaviourally conditioned type, 5 participants belong to the antisocial-impulsivist type and 3 participants belonged to the emotionally vulnerable type. One participant was not a problem gambler: he gambled socially. He came to the meetings as his son was a problem gambler. The majority of the participants started to gamble during adolescent years. Soccer betting and horse racing were their most favoured games. The study demonstrates that religious indoctrination and involvement can be a viable treatment for behaviourally conditioned gamblers as a

significant number of these gamblers achieved total abstinence through attendance of the group meetings.

There have been few outcome studies evaluating the effectiveness of the treatment facilities in Hong Kong. To date, only one study has been performed by a research group from the Hong Kong Polytechnic University. This research team was commissioned by the Hong Kong Government to evaluate the effectiveness of the Tung Wah Even Centre and the Caritas Addicted Gamblers Counselling Centre (The Hong Kong Polytechnic University, 2006). The team found that the two centres were successful in providing cost-effective treatment for problem gamblers. However, this evaluation has a number of limitations. In determining the effectiveness of the treatment, the research team relied mainly on the reports given by the two centres. A good research program should investigate the effectiveness of the programs by interviewing the recipients of the services rather than the providers of the services. Lastly, the report makes a fundamental mistake by suggesting that “Total abstinence from gambling is not possible. Positive treatment outcomes should be viewed as helping gamblers understand their personal responsibility so that they can develop self-control when engaging in gambling activities (The Hong Kong Polytechnic University, 2006, p. xi.)”.

Lastly, in the review of the treatment of problem gamblers in Hong Kong, the major problem is the lack of pharmacological intervention. Recent advances in medical research have shed new light on treating gamblers (e.g. Fong, 2009). However, treatment facilities in Hong Kong do not pay much attention to the importance of the medical model in the treatment of pathological gamblers. Another difficulty is the lack of treatment facilities and trained personnel. In Hong Kong, there are less than ten centres for a population of about seven million.

Conclusion

This section has presented a literature review of gambling and problem gambling in Hong Kong and Macau. Among the various theories on the etiology of problem gambling, Blaszczynski and Nower (2002) presents the most complete model on the different pathways to problem gambling. This perspective takes in the biological and psychological characteristics of the gambler in his/her development of problem gambling. Recent empirical studies (e.g., Haw, 2009; Woods & Griffiths, 2007) have supported this model. Thus, the present study employs this model as the theoretical basis for data collection and analysis.

Treatment effectiveness has been a concern of research into problem gambling (Blaszczynski, 2005). The latest Cochrane review on the treatment effectiveness of problem gambling has shown that problem gambling is a treatable psychological disorder (Anderson, 2010). Professional trained individuals have been found to be more effective in helping individuals to recover from this disorder. Pharmacological treatment is helpful and, among the various kinds of drugs, opiate antagonists such as naltrexone have been found to be effective in reducing the craving of gambling urges among active gamblers. In the comprehensive Cochrane review, cognitive behavioural therapy is found to be most helpful in helping gamblers to control their gambling behaviour (Anderson, 2010). The crucial element in the treatment of pathological gambling is the development of impulse control (Dickerson & O'Connor, 2006). Dickerson and O'Connor (2006) argue that the fundamental problem of pathological gamblers is that they lack the ability to control their impulses and urges in gambling. Such inability might have a hereditary or biological origin, or be due to a conditioned behavioural pattern involving poor decisions. Thus, for treatment professionals, intervention should include sessions devoted to the development of assertiveness and impulse control. In comparison, self-help groups are not as effective as

treatment is not provided by trained professional counsellors. The dropout rates from these groups are always high (Chan & Ohtsuka, 2010a).

Chapter 3

Method

The current study investigated the personality and cognitive styles of Chinese pathological gamblers in Macau. The proposed outcomes of this investigation were to achieve a detailed description of their social behaviour and personality patterns. This data is important for the design and implementation of the treatment of problem gamblers. This section will cover the author's perspective on the study, the theoretical basis, the hypotheses, the participants, the procedure in the data collection, and the methodology of the data analysis.

The Author's perspective: An Ethnographic approach

The present study aimed to understand the subjective world of the gamblers from their words and behaviour. To this end, an ethnographic approach was employed in this study. This research method is frequently used in cultural anthropology (Hammersley & Atkinson, 1995). Basically, ethnographic research is an interpretative form of social research. The purpose of ethnographic research is to understand the culture and lifestyle of a specific group.

In the research methodology literature, there are three common definitions of ethnography.

- a. "Ethnography is the art and science of describing a group or culture. The description may be of a small tribal community in an exotic land or a classroom in middle-class suburbia (Fetterman, 1998, p. 1)"

According to this view, the ethnographer seeks to describe a phenomenon. The ethnographer's work is primary that of a reporter, who investigates a social issue. He/she might interview the relevant people in the issue, weigh the different testimonials, and make a good analysis of the problem. For instance, the

ethnographic researcher might investigate the lives and the adjustment of new Chinese immigrants in Melbourne. She might then interview new Chinese immigrants in the community, talking to their family members, observing them at work or even participate in the dinners and festivals. In this way, the researcher is making a construction of the participants from their subjective world.

- b. Ethnography is both a product and process of research (Agar, 1996, p. 53). In this perspective, ethnography consists of repeated and prolonged observation of a social phenomenon. For example, ethnography of a gambler would include repeated observations of the person during gambling. Also, the product is an ethnography – a written manuscript and study of one's observations of the phenomenon under study.
- c. Atkinson and Hammersley (1994, p. 248) defines an ethnographic study as a form of social research with the following features:
 - a strong emphasis on exploring a particular social issue;
 - a piece of work originally on the unstructured data;
 - an investigation of a small number of cases in detail. Sometimes, there will only be one case in the study.

The analysis of the data involves basically the interpretation of the meanings of the behaviour and communication of the study's population. The use of quantitative analysis would play much less of a role in the overall analysis.

The two common methods employed in ethnography were used in this research project: participant observation and interviewing.

- **Participant Observation.** This requires the researcher immersing himself in the daily lives of participants being studied. This fieldwork often involves extensive work and

time in the setting being studied. In this thesis research project, the researcher observed casino gamblers while they were gambling in the casinos. In this regard, the participants' gambling behaviour was coded and recorded. A special coding system was developed to record their behaviour. The researcher did not interfere with the participants while they were gambling. The notes were transcribed in a quiet location in the casino, usually in the men's toilet. These records were the primary source of information for the present study.

- Interviewing. Ethnographic researchers learn about a culture or group by interviewing with informants or members of the group. These interviews might vary in degree of formality (from formal interviews to casual talks). In the present study, informal interviews were used. Usually, the interviewer interviewed the participants in the casinos.
- Collection of artifacts in the studies group. Ethnographers may also study about a particular culture by collecting and studying artefacts in the studied environment as these materials might represent the lives and work of the culture under investigation. In the present study, the researcher did not employ this method as interview data was more reliably extracted by obtaining information from the participants.

In summary, ethnographic studies focus on seeking social meanings through intensive field observation of a selected cultural phenomenon. The recorded observations, including the conversation and actions of the participants, are the basis of the data. Qualitative analysis of the data serves as the focus of the investigation. The researcher usually carries no preconceived perspective on what the data should be. Instead, he lets the data speak for itself. Concepts are then derived from the data and the final analysis is based on this data.

The current study is based on this ethnographic paradigm. The researcher let the participants in the study tell their stories of gambling, describing their social upbringings, their

family background, their career development, and their relationships with others. In more simple terms, the current study seeks to investigate the world-view of the participants from their own perspectives. This methodology enables the researcher to see and feel the subjective experiences and behaviour of the casino gamblers. In other words, the researcher attempted to understand how Chinese pathological gamblers see their own actions, their gambling problems and their worlds. In this approach, the researcher observed and interviewed the participants repeatedly throughout the study. And, throughout the study, the researcher held a non-judgmental and impartial attitude towards the participants.

The Theoretical Basis of this study

In this study, the researcher attempted to classify the Chinese casino gamblers according to the Blaszczynski and Nower (2002) pathways development model of problem and pathological gambling approach. Their pathway model classifies problem gamblers into three types, namely: behaviourally-conditioned gamblers, emotionally vulnerable gamblers and problem gamblers with co-morbid impulse control disorders. This model has been discussed in detail in the introduction and the literature review. In brief, the model proposes that all gamblers begin with a proximity to gambling. This may include growing up in an environment that encourages gambling. They may gamble socially in their adolescent years and usually have an early win in their gambling career. Subsequent involvement in gambling might be the consequence of poor decision making and life stresses. Out of this background three distinct groups emerge, namely behavioural-conditioned gamblers, emotionally-vulnerable gamblers and antisocial-impulsivist gamblers. Each type of gamblers possesses a specific set of personality characteristics and thus might benefit from different intervention techniques. The data from the current study was analysed using the concepts of this model.

Recently, Wood and Griffiths (2007) have published a qualitative study on problem

gamblers in the United Kingdom. The purposes of this study were to understand how problem gamblers perceive their gambling and the role gambling play as a means of coping among gamblers. 50 problem gamblers, aged between 18 to 63 years, participated in the study. The focus of the interview was to explore the subjective world of the participants. Detailed analysis of the responses of the participants identified “gambling to escape” as the core category of motivation for gambling. In order to achieve this state, gamblers attempted, rather unconsciously, to modify their mood by fantasies, dissociation, and/or changes in arousal. For these participants, mood modification was the primary motivation.

To date, there has not been a study of the Paichais, the resident gamblers in Macau’s casinos. Their antisocial behaviour might fit the description of antisocial-impulsivist gamblers in the Blaszczynski and Nower (2002) pathway development. Even though Paichais might have come from diverse backgrounds, their behavioural characteristics such as their manipulative behaviour look strikingly similar. Why do the other two groups of gamblers not present among the Paichais? Can Paichais’ pathway development be different from the antisocial-impulsivist gamblers of the Blaszczynski and Nower’s (2002) model? And, lastly, what are the cultural variations and influences on their development? A more detailed assessment of the personality and social background of these gamblers is necessary to provide an explanation of these questions.

The present study employed a grounded approach to understanding the world view, beliefs and the gambling behaviour of Paichais. In more detail, this study sought to explore Paichais’ developmental pathway of problem gambling, their cognitive patterns including their schema of their lives, their use of superstitious beliefs and ego defence mechanisms, their personality patterns and their gambling behaviour.

In achieving these objectives, the current study aimed to test the following research hypotheses:

1. The Paichais, as a group of distinct problem gamblers, share common developmental pathways. During their adolescent years, proximity to gambling is a significant factor in their development of problem gambling. They have had early wins in their gambling career, which were followed by subsequent losses and chasing.
2. When compared with non-Paichais, Paichais have a more intensive involvement in gambling. Their level of problem gambling should be more serious than non-Paichais.
3. Paichais' worldview centres on gambling only.
4. Paichais' pathway development best fit the antisocial-impulsivist gamblers according to the Blaszczynski and Nower (2002) model.

The testing of these hypotheses was based mainly on self-reported information and the researcher's participant observation in the casinos.

Participants

In the process of recruitment, the researcher went to the casinos of Macau and invited suitable participants into the study. In the course of the study, the researcher made 119 personal invitations. Only fifteen adult participants, 9 males and 6 females, agreed to join. The success rate of invitation was about 12.6%. The researcher visited all the casinos in the process of participant recruitment. To classify a gambler as a Paichai, the gambler had to gamble in the casinos often and engaged in hustling or begging strangers for money. They were easily distinguishable from other types of patrons as they were in the casinos almost every day.

The mean age of the participants was 39.4. Among the participants, 11 were married and 4 were single. The requirements were that they had to be excessive gamblers and they should be the legal age of 18 or over. The criterion for selection as "excessive gambler" is that the participant had to gamble in the casinos always. As the researcher in this study would visit the casinos repeatedly, he would invite the suitable participant if this person often gambled

and appeared to be always in the casino . The criteria might seem to be based on subjective judgement. But as the recruitment process of active gamblers into the study was very difficult, the present approach was the most appropriate to achieve the research purposes. When they were invited into the study, participants were given a brief description of the purposes and details of the investigation. A copy of the Information for Participant Form is found in Appendix A . The Chinese translation is given in Appendix B. If they agreed to participate, they were asked to sign a Consent Form (Appendix C; Chinese translation in Appendix D). Through this process, fifteen subjects took part in this project. There were eleven Paichais and four non-Paichais in the study. The four non-Paichais were recruited as a comparative sample. Among the Paichais, two were originally from Mainland China. Three came from Hong Kong and six were from the community of Macau. Their incomes ranged from HK\$3,500 to HK\$20,000 per month. In the area of education, the Paichais were mostly under-achievers in school. Five of them achieved a primary education only and six had finished a high school diploma. By comparison, the four non-Paichais were at least educated up to the high school level. One of them, Derrick , aged 24, was working on a post-graduate degree in tourism in a local college. Their demographic data is given in Table 2.

Materials

An interview protocol (Appendix E; Chinese translation is given in Appendix F) was constructed for the study. The interview protocol covered the demographic data, developmental relationships, career development, the history of gambling and the person's gambling history, and the impact of gambling on his or her life and significant others. This interview guide was designed according to previous research in the psychological literature and the author's experience in the field of gambling. These structured interviews covered questions on the following areas:

- Family of origin

- Significant events of the participant's childhood development
- Relationship with parents
- School experiences
- Career development
- The state of gambling (precipitating events and triggers, age of onset of gambling, family reactions to gambling, and losses and wins in gambling, fantasies and wishes regarding gambling, usual gambling venues, use of superstitions, size of bets, favourite games, and the consequences of gambling)
- Marital life and family relationships
- Lifestyles and habits
- The participants' views of their own lives and others
- Responses to gambling: attempts at treatment of gambling, amenability to gambling, uses of treatment modality and relapse

The interview was based on the ground theory approach (Strauss & Corbin, 1990).

This interview centred on the participant's family background, history and trajectory of gambling, as well as the root causes and impacts of gambling on their lives. During the interview the participants were given ample opportunities to freely express themselves. As each participant was somewhat different from another, the researcher focused on different themes and concepts for each participant. For example, if a participant had been physically or sexually abused in childhood, the interview would place more emphasis on this theme and would investigate how this factor had contributed to the maintenance of the participant's gambling. Family members of the participants were not included in the study.

Further, participants were repeatedly observed during their stay and gambling in the casinos. Their behaviour and conversation during gambling was coded and transcribed into notes. Operational definition of gambling behaviour was made in order to functionally assess

the participants. For example, impulsivity was operationally defined as the inability to resist the urge to gamble, always wagering despite repeated losses and failure to stop gambling and leave the casino even though one has lost all one's funds. Chasing was operationally defined as continuing to bet in order to recover one's loss. Chasing was classified into two types: between session chasing and within chasing. Conduct disorder was operationally defined as the kind of behaviours that runs contrary to social expectations. A good example of this is truancy from school. The emotional state of the participants was assessed by their behaviour in the casinos. If the participants were depressed, they would demonstrate symptoms such as lowness of mood, disturbances of eating patterns, extreme mood swings and low energy levels.

The reliability and validity of the self-reports of Paichais and non-Paichais

The question of reliability of self-report needs more elucidation. Chinese people are reluctant to give out personal information to strangers, especially in crowded noisy casinos. Their involvement in gambling, their personal finances and their relationships are often areas of taboo among Chinese gamblers. As the main source of data of the current report was from the self-reporting of the participants, the researcher employed a number of strategies to ensure the validity and reliability of these self-reports. Firstly, all the participants were interviewed and observed repeatedly in the course of the study. If a discrepancy was found between the observed behaviour and the self-report, the researcher would confront the participants regarding this particular behaviour. Secondly, the validity of their responses could be checked by other participants in the study. Almost all the Paichais in the current study knew each other. Thus, it was not difficult to check the accuracy of their information from other participants. After the data was transcribed into notes, the resulting documents were analysed by the researcher and a person who did not know the participants. This approach ensured a good reliability in the assessment of the

collected data as the two raters discussed all transcribed documents.

All participants were assessed by the nine-item Problem Gambling Severity Index of the Canadian Problem Gambling Index (CPGI) (Ferris & Wayne, 2001). Participants responded to items that measured gambling severity. The items are constructed on a four-point scale: (0) *never*, (1) *sometimes*, (2) *most of the time*, and (3) *almost always*. Scores range from 0 to 27. Individuals scoring higher on this scale might imply a greater problem severity. Scores on the PGSI can be used to classify individuals as non-problem gamblers (score of 0), low risk gamblers (scores of 1 or 2), moderate risk gamblers (scores between 3 and 7), or problem gamblers (scores of 8 or higher). The PGSI has been a preferred assessment tool for gambling research in Australia (Neal, Delfabbro & O'Neal, 2005). This instrument has demonstrated good test-retest reliability, internal consistency, criterion validity with measures of gambling involvement and concurrent validity with other assessment tools of problem gambling (Ferris & Wynne, 2001; Holtgraves, 2009; McMillen & Wenzel, 2006). Several studies suggest that PGSI outperforms other measures of problem gambling in terms of overall rationale, internal consistency, item difficulty, construct validity and factor structure (Holtgraves, 2009; Neal, Delfabbro & O'Neal, 2005; Young & Stevens, 2008). The instrument contains nine forced-choice questions measuring aspects such as preoccupation with gambling, chasing behaviour, the effects of gambling on the person, perceived control of gambling behaviour, and guilt and remorse over gambling. This is a widely used instrument in research in gambling (Delfabbro, 2008, pp. 65-70). A copy of the PGSI is placed in Appendix G (the Chinese translated version is given in Appendix H).

Procedure

Ethics approval was obtained for the current study from the Human Research Ethics committee of Victoria University. The ethics approval number is HRETH 08/92 and was

granted on the 30th of July, 2008. All the guidelines of the ethics committee were followed in this study. The procedure of the study was as follows: The researcher visited the casinos and spotted potential participants for the study who qualified for the definition of Paichais in Macau. In Macau, Paichais are a distinct group of problem gamblers in the casinos. Macanese identify a gambler as a Paichai when he or she has the following characteristics:

1. Staying in the casinos all day, taking advantages of the facilities and nourishing themselves with free food offers available within casinos.
2. Constantly begging for money from other gamblers.
3. Being the most boisterous group at the casinos, cheering for the other gamblers at the gambling tables.
4. Engaging in illegal or shady activities such as stealing money from other gamblers, working as a middleman between gamblers with mounting debts and a loan shark, and causing nuisance for the management.

Based on such criteria, the researcher would invite the prospective participants to participate in the study. Participants in the study could also be recruited through the process of snowballing. In this process, participants in the study introduced their friends or acquaintances, who were also excessive gamblers, into the study. Since participants meeting the criteria for participation spent excessive hours in casinos, their social network tended to overlap with a circle of similar gamblers.

When the prospective participants agreed to join the study, they were asked to sign the consent form (Appendix D). They would then be fully briefed on the purposes of the study, their rights and details of the procedure to be followed. They were encouraged to ask questions about their obligations and privileges. All of the participants understood that they would be

observed and interviewed in the casinos.

After they signed the consent form, they would enter the first part of the study, i.e. the ethnological approach, during which they were observed repeatedly when they gambled in the casinos. The researcher made a good record of their gambling behaviour, their conversation, and details of their life stories and gambling histories. The researcher's notes on the transcripts and the field notes of emerging themes were taken throughout the research process. These recordings were the description of the participants' conversation, behaviour and mood. The researcher would not write down the notes in front of the participants; very often these notes were written down in the private corners of the casinos or in the restrooms. Taping of the conversation might also be performed if the participants agreed to such a procedure. The recorded tapes would then be transcribed to notes for further analysis.

For comparison purposes, a few entrenched casino gamblers who did not fully satisfy the definitions of Paichai but who shared some characteristics with Paichais were also recruited into the study. The criteria for selection were that they would not stay in the casino every day and they would not hustle others for tips.

The methodology of the data analysis

The analysis of the data consists of two parts. The first part was an analysis of the demographic data of the subjects. This included the subjects' age, education level, marital status, income level, and the types of games they played. These demographic variables would give a general picture of the sample of Chinese pathological gamblers in Macau.

The second part consisted of an analysis of conversations, experiences and feelings, and interviews to gain insight into the subjective world of the participants. In achieving this purpose, the current study used Hycner's (1999) explication process in the analysis of the data. There are five steps in this process:

1. Bracketing and phenomenological reduction: bracketing is a specific approach in phenomenological study, wherein the researcher's interview questions are focused on the participant's experiences, feelings, beliefs and convictions on the issues. Audio-taping of the sessions might be necessary for the researcher to develop a holistic sense of the participant's subjective world. The transcribed notes, field notes and the hand-written notes are taken during the observation and subject to coding. As the interviews progress, new themes identified by the researcher are introduced to subsequent interviews to enable theoretical coding. Conceptual relationships among the themes are assembled through a process of axial coding.
2. Delineating units of meaning: the researcher has to carefully examine the data and make a judgment on the true and holistic meaning of the participant's responses in the interviews. In doing this, the researcher might need to study the interview notes repeatedly in order to achieve a general understanding of the client's world.
3. Clustering of units of meaning to form themes: the researcher derives themes from the interview records of each participant. The themes should collectively form a theoretical viewpoint. Such themes are compared and contrasted with the existing theories in the gambling literature.
4. Summarising each interview, validating it and changing it according to the situation: Based on the theoretical viewpoint, the researcher returns to the interview data and checks the validity and meaning of the data. How does each interview record relate to one other? What are the subjective feelings and concerns of the subject? Why does the person make choices in gambling?

These are the pertinent questions for the researcher to find out in this stage.

5. Extracting and developing general and unique themes and making a composite summary. Based on the summaries of all the interviews, the researcher can arrive at a general theory that can explain the facts and the findings of the investigation. Using this information, they are able to explain the gambling behaviour and lifestyle of the participants. The final theoretical framework which emerges from this process forms the basis of the data analysis of this study. Investigations that have employed this approach can be found in Hayano (1982).

The researcher in the current study used the theoretical concepts and findings derived from the data analysis to test the hypotheses. He attempted to answer the following research questions:

1. How would the theoretical framework of this study compare with the Blaszczynski and Nower (2002) model of problem gambling? In achieving this end, the collected data has been interpreted according to the three pathways in the Blaszczynski and Nower (2002) model. For example, the operational definition of impulsivity in this model was assessed on the basis of the participants' own description of their lifestyles and gambling history. If the person demonstrated a consistent pattern of undisciplined conduct disorder and a failure to learn from experiences, then the participants were classified as impulsive.
2. Can the findings support the hypotheses?
3. And, lastly and most importantly, what is the general picture of the subjective world of the Chinese pathological gamblers in Macau?

Chapter 4

Results

This research intended to investigate the pathological gamblers in Macau, specifically “resident” gamblers who stay in the vicinity of the casinos for extended periods of time, in some extreme cases all the time. These individuals spend the majority of their lives in the casinos. In Macau, people call them “Paichai, (扒仔)” which literally means those who grab money from others. Many “resident” gamblers find this term highly derogatory and no gambler would formally acknowledge such a label in public.

Thematic analysis of the responses of the participants produced surprising findings. The participants can be classified into two groups: Paichais and non-Paichais. Paichais demonstrated much of the antisocial/impulsive characteristics of pathological gamblers. Usually, they began gambling at an early stage in life. Early wins were often reported among these participants. With prolonged periods of gambling, they failed to develop a law-abiding career and lifestyle. Many of them had little contact with their families. They centred their lives around casino gambling only. Repeated interviews with them indicated that they had neither much remorse for their gambling nor any desire to quit. They enjoyed being in the casinos every day. For them, gambling was their life. In contrast, the four non-Paichais had more control over their gambling. Usually, they had a stable career and would not stay in the casinos every day. They gambled for excitement and fun. Their problems were the consequences of poor decision making. Though they would chase their losses, they would not work on illegal means to finance their gambling. Compared with the Paichais, they were capable of having insight into their problems. They were not antisocial characters.

The Paichai as a distinct type of problem gamblers

The Paichai is a distinct type of problem gambler. Paichais can be easily spotted as the most boisterous and active gamblers in the casinos. Usually they gather as a group behind other gamblers at gaming tables, cheering and yelling at each dealt hands. Even when they do not gamble, they enjoy yelling and predicting the outcomes of dealt cards. The following analysis of the social and clinical construction of these individuals is built from the qualitative interviews and observation of these individuals in the casinos.

Always in the casinos and always gambling

Paichais are always in the casinos. They literally stay in the casino and gamble for all waking hours. Paichais gamble every day of the year in Macau where casinos are open 365 days. Casinos are their second home (Five participants described the casino with this term; others even went further to declare that the casinos are their primary residences!). In the Paichais' subjective world, casinos are where the action is – the centre of fun and merry making. The majority go there well past midnight or early hours when there are fewer people. Wally (a 52 year old male Paichai), for example, “commutes” to casinos in the evening often after dinner at home. As a group, Paichais love to gather and occupy their “own” floors poised for action for the long night often well into the morning hours. They will spend the whole night in the casinos during which they hop from gaming table to table, observing others in action. They appear to be most attracted to the liveliest gaming tables, happily looking over the shoulders of other gamblers. Very often, they will yell and cheer at the dealt cards and the outcomes of each game at the table.

Jenny, a 52 year old female Paichai, offered her unsolicited advice to another female gambler at the baccarat table.

Jenny: “I told you that the next round of cards would favor the Banker. Honey,

you should have listened to me. That's why you lost. Listen, I have been here long before you were born. I tell you the route of cards now favors the "Banker" according to the usual "ways" (patterns) of the game" (Jenny, a 52 year old female Paichai)."

Female gambler: "go away, you're annoying me."

Jenny seemed to pay no attention to what the gambler said. She did not feel embarrassed by the rude comments of the gambler. Instead she continued to stay at the table, talking to other gamblers about the "ways" or patterns of the cards.

Paichais appear happy to hang about the gambling tables even when they are not betting at all. Fu (a 52 year old male Paichai) declared that he regarded casinos as his second home as he would go there every day. Mary (a 44 year old female Paichai, could not wait to visit the casino as soon as she woke up in the morning. As a number of the casinos in Macao provide free food and drinks, Paichais can take advantage of such complimentary nourishment. Fu (a 52 year old male Paichai) has shown the researcher how to take advantage of the casino's facilities:

"There is free food in the casino. Once you sit down and pretend you are gambling, you can ask the waitress for food. Nobody knows how much you gamble or whether you are betting or not. No-one cares. Free snacks like meat, bread and tea will be available around the clock. Restrooms are clean. Hey, you can sleep on the couch. Sometimes I like to take short naps, here or in the park outside. I don't care what other people say about us. I love to be in here. Life is good here in the casino. (Fu, 52 year old male Paichai)."

Apparently, Paichais are happy literally making casinos their homes. They like

to stay in the casinos all day, and every day of the year. Fifty two year old Paichai. Wally, claimed one corner of the New Lisboa Casino gaming floor as his “sphere of influence.” He would come in to check his “business” every night. In the present study, it was found that Paichais enjoyed each other’s company in the casinos. They loved to gather as a group to discuss the patterns or the “ways” of the games. These “ways” or patterns were often the main discussion topics. During the numerous interviews and observation in the present study, one consistent finding was that Paichais were obsessed with the “ways” or “patterns” of the outcomes of the cards. Very often, they would stand in front of the casino tables for a long time to study the patterns. One interesting observation was that one Paichai, Johnny (a 36 year old male Paichai), liked to stand in front of the baccarat table for one hour without moving his hands or his head. He enjoyed holding such a catatonic posture while focusing on the ways of the cards. The following is an excerpt of how Mark (a 40 year old Paichai) explained the fundamental structure of the “ways” or “patterns” to the researcher.

“You are a novice in gambling. You don’t know how the games run. I will show you. Now there are a number of “ways”: Big “way” that summarises the run of the cards in the last 36 rounds and small “ways” that cover six rounds of cards. We name each “way” according to their configuration of the cards. For example, (pointing to the table) the current “way” is the “cockroach way” – you see the results go in pairs – “Banker- Banker” and “Player-Player”. So I am very sure the next set will be “Banker” because this set is “Banker” (Mark, 40 year old Paichai).”

In order to find or figure out the “ways,” Paichais intensively study the card outcomes. They seem to be certain that there is a system that governs the outcomes of the

card. In the process, they are projecting a pattern into the random numbers. This might well be a type of cognitive bias (Coventry, 2002). In essence, the belief that there are “ways” or patterns in the cards is a control belief with which gamblers seek to understand the random world and to gamble with confidence (Langer, 1975). To these gamblers, the discovery of such patterns or “ways” takes effort and ability. Thus, they focus on the card outcomes diligently and faithfully when they are in the casinos. And if their prediction of the “ways” is correct, they tend to attribute this to their abilities. The following is an excerpt of discussion between Jenny (a 53 year old female Paichai) and Mark (a 40 year old Paichai).

“That’s why I told you. The small “way” runs the “cockroach way.” That’s the reason that the last outcome is the “Banker.” I figured it out before they drew the cards (Jenny, a 53 year old Paichai).”

Even though Jenny was not wagering at all, she was elated when her prediction was proved right. If her predictions were wrong, she would attribute that to the misbehaviour of others. She would suggest, for instance, that the dealers had cut the cards too early thus disrupting the system or that other gamblers had too loudly discussed the “ways” of the cards which, according to the Paichais, would change, or in their token, “blow” the “ways” apart. Jenny’s behaviour best illustrates the attribution theory of Weiner (1985), where people tend to attribute their own success to ability and failure to the misdeeds of others.

When Paichais are in the casino, they like to wander around their usual areas, looking for customers who might tip them. For these gamblers, the casino is their home. This is particularly true for the three Paichais from Hong Kong. Prior to their gambling experiences, these gamblers came from Hong Kong. As their gambling involvement

intensified, they started commuting to the casinos in Macau on a daily basis. Eventually, they were stranded in the casinos in Macau opting for a “full-time” gambling career. One good example is Ming (a 47 year old male Paichai). Prior to the acquisition of gambling habits, Ah Ming had been a factory worker in Hong Kong. Married and with two children, his life took a drastic turn when he started to visit the casinos in Macau for gambling.

This is his account of his gambling life:

“I used to play mahjong and bet on horse races in Hong Kong. Nothing serious. Then one day some friends of mine asked me to come to Macau. Wow, there are a lot of attractions over here. I was in one of the casinos. I bet and I won. More than HK\$100,000 dollars (AUD15,380). I worked my ass off in the factory in Hong Kong and then what did I get? I only received a few thousands Hong Kong dollars a month. On the day I won big, I spent it all in Macau. There are pretty women, prostitutes around. You know the rest (of my story) (Ming, a 47 year old male Paichai).”

His gambling habits intensified in the following few months. Then in early 2003, he took an early retirement package from the factory and secured a lump sum payment of approximately HK\$150,000. He tried to increase his retirement savings through gambling as he was free to commute to Macau every day. Not surprisingly, he eventually lost all the retirement money. He said that he would not dare going back to see his family as he has lost “face.” Having become stranded in the casinos in Macau, he tried every means to scrape a few dollars for a living. For instance, he took full advantage of the free food and drinks provided by the casinos – although far from nutritious and healthy, he did not have to worry about the grocery budget. At night, he would sleep in the parks around the casinos or in the deserted shopping malls. He might frequently ask for money

from passers-by or search for loose coins in the slot machines. But he appeared to be most relaxed and vibrant once he was in the casinos. During many repeated observation sessions, Ming was seen walking around the gambling tables, talking aloud to other patrons. He would spend much time in guessing and figuring the ways of the games. He would predict, with good confidence and an air of authority, to other gamblers about the outcomes of the next hand in the game of baccarat. And if his guesses were correct, he would ask or more accurately hustle people for tips. However, other gamblers apparently did not seem to appreciate his volunteer “service.” The following is an excerpt of a conversation of Ming and another gambler.

“I can tell the next round of cards should be the “Banker.” (Ming, a 47 year old male Paichai).” When the dealer dished out the cards, Ming yelled loudly, “Banker, Banker.” But the customers said: “Shut up, go away.”

Ming always followed other customers, especially the “big spenders” and asked them for money. He would constantly be begging others to spare a few dollars. During the interviews, the researcher has seen the casino security officers literally throw him out of the casino. But the next day he would return to the casino as there is no mechanism for excluding individual gamblers. In Macau, as long as the gamblers are not cheating in the casino, they will not drive them out. There are few provisions for excluding gamblers who over-stay in the casinos.

Ming’s story is reflected in two other cases of Paichais (Fu, 52, male and Mary, 44) from Hong Kong. They shared similar pathways and trajectories in the development of their entrenched gambling habits in Macau. Like Ming, their gambling intensified as they went through transitional stages in their lives. Fu, for instance, took an early retirement in 2007 while Mary was laid off from her work in 2006 during an economic

downturn. Since 2008, there has been a period of recession in Hong Kong. Without a stable career, these gamblers began to gamble more frequently in the casinos in Macau. With repeated gambling losses, they were stranded in the casinos. An unexpected finding is that even though they were penniless, these Paichais all lived for the dream of scoring a jackpot one day. They would scrape for pennies and once they had the money, they would put it back into gambling. In fact, they preferred to continue living in a fantasy world. Not surprisingly, they did not wish to return to their mundane normal lives to Hong Kong. Rather they chose to chase their losses in the casinos. Crossing back to a normal life does not cost much. A ferry ticket from Macau to Hong Kong usually costs only HK\$130 (or AUD 18.50). Fu told the researcher that on average he might make HK\$100 a day. But he would rather put his earnings back into gambling than secure a ticket to go back to normal life in Hong Kong. Fu repeatedly told the researcher that one day he would recoup his losses. Thus, he would chase the losses for now.

The third group of Paichais came originally from Mainland China. These Paichais visited the casinos regularly. Like the local Paichais, they stayed in the casinos every day, constantly looking for opportunities to make a living. In addition, they also served as middlemen between loan sharks and casino gamblers who had lost big in the casino. This group of Paichais often came in a group with the leader, who was usually connected to a triad or Chinese criminal syndicates in China. These Paichais were also entrenched gamblers themselves. They would always put the money they received from others into the baccarat games. Like the other local Paichais, they were preoccupied with the “ways” of the cards, chased their losses and hustled for loose change from other gamblers.

The Paichai's background

On exploration, the majority (6 out of 11) of Paichais came from -Macau. The rest were from Hong Kong and Mainland China. Paichais from the local area usually had no degree or certificate beyond secondary education; nor did they have a stable job. Being in the casino was their career. The majority of them would not disclose much about their families. One example is Jenny (a 52 year old female Paichai), who told the researcher that she had a daughter. But she appeared to have little attachment to her family as she spent the majority of her waking hours in the casinos. She refused to disclose details of her marriage or career development. In the repeated interviews, she only talked about issues related to gambling, her friends in the casinos and how to take advantage of the system.

Among the Paichais who agreed to disclose their histories of development, two elements were often mentioned in their disclosure of their histories. Very often, they reported incidences of sensation-seeking behaviour and conduct problems in childhood. For instance, Mark (a 40 year old Paichai) reported that he liked to skip school to go to X-rated movies. Johnny (a 36 year old Paichai) had a history of conduct problems in school. Starting early in his adolescent years, Johnny enjoyed risk-taking behaviour such as smoking and having unprotected sexual intercourse with his girlfriends. It appears that these two had a propensity to seek out rewarding activities to receive stimulation and excitement. As a group, the Paichais showed more conduct disorders such as substance abuse and truancy in school than the non-Paichais in the study. Some Paichais reported having parents who were abusive. The following is the story of Jennifer (a 32 year old Paichai).

“I came from a family with no love. Father is an alcoholic and mother is a

gambler. No-one took care of me when I was young. I started stealing from friends to buy food. Gambling is fun. I learned to gamble when I was little. I like the excitement (Jennifer, 32 year old Paichai).”

The theme of poor relationships with others, especially family members, is often reported in the interviews of Paichais.

“I hate my parents. I hate all those who take advantage of others. I guess I hate men as well. That’s why I am single. (Jennifer, a 32 year old Paichai).”

Reasons for gambling

When asked about their reasons and motivation for gambling, all the Paichais said that it was for the money. While monetary gains were a major motivation for their gambling, Paichais received a number of secondary gains in the process. The first such was the excitement of the game. The majority of them said that the “thrill of the game” was what they were looking for every day. Three Paichais claimed that “being in the casino was part of their lives.” For example, Wally (a 52 year old male) claimed that he came to the New Lisboa Casino every day to “check his business.” He could not think about a day without visiting the casino and regards his gambling activities as his business.

Another secondary gain of their gambling was the dissociation from the worries and concerns of daily life. This is especially the case for the three Paichais from Hong Kong. They left their families in Hong Kong and were stranded in the casinos of Macau. They spent all day in the casinos, scraping pennies for a living. With the money they received from begging or hustling casino gamblers, they reinvested all takings into gambling again. One of them, Fu would stay in the casinos 24 hours a day. He would take the free complimentary food from the casinos, sleep in the coaches or even the toilet.

In the casino, he was most happy and, in a way, he could dissociate himself from all the worries and anxieties of life. The dissociation might be taken as a form of escape for these gamblers. To these individuals, casino gambling was a form of experiential avoidance, where they tried to escape from their anxieties and worries.

Lastly, all Paichais always dreamed of making it big one day. In the interviews, one major theme always appeared – payback for one’s losses.

“I have been unlucky all my life. It’s time for me to re-coup my losses and get what should be mine (Kong, 36, male Paichai).”

Such ideas sustained their continuous chasing of losses. Ming, for example, repeatedly told the researcher stories of gamblers who had been able to make millions out of a hundred dollars. This distant hope appears to be the only sustaining support for his continuous gambling.

Their involvement in gambling

Paichais were involved in gambling at an early age. This might have included coming from a gambling family where gambling was condoned or even encouraged by parents. Their exposure to gambling led to an involvement of gambling, usually in their primary school years. One participant commented on his first exposure to gambling

“I gambled on everything when I was young. Others like to eat; I like to gamble. People got a lot of fun at ball games; we like to put in elements of gambling. Real bad, isn’t it? All the boys in the neighborhood did that. In my primary school the teachers studied the gambling tips during lunch. I guess gambling was in the air (Mark, a 40 year old Paichai).”

In some other cases, the introduction to gambling was through friends. Most of the participants reported that their first experiences of gambling were positive. That might mean that they derived pleasure and fun through gambling activities or early wins. Winning was particular reinforcing for those who were from a low socio-economic class. An early win might mean a dream of riches and influence that were otherwise not attainable for them. One example is Mary (a 44 year old Paichai), who started to gamble after winning a jackpot of HKD20,000 in a Caribbean Stud game in the casino. But with continuous involvement in gambling, they soon found themselves to be regular customers in the casinos.

All the Paichais in the study were given the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001). The results indicated that all could be considered as problem gamblers. They averaged 21.18 in the CPGI. In the CPGI, those who score over eight can be considered as a problem gambler. This average is higher than that of the non-Paichais ($N=4$, mean scores=16.5) in the current sample. In the PGSI, a problem gambler is portrayed as someone who loses control over gambling, chases after losses, suffers significant problems in their career and with their family due to gambling, fails in repeated attempts at treatment and often commits illegal acts to finance his/her gambling. The Paichais in the sample had all the characteristics of problem gambling. The following are excerpts from interviews with the Paichais:

“I wake up every morning to come here. I have no place to go. It is my second home. Just watching people play is fantastic. I don’t care what other people say. Some like badminton; some go to church. To me, coming here is my life (Jennifer, a 32 year old Paichai).”

“I always think about how to win. If I see people winning on the baccarat table, I try to figure out how they win. Yes, the word ‘rumination’ is right. I have been thinking about gambling all days (Fu, a 52 year old male Paichai).

With continuous involvement in gambling, all Paichais had failed to achieve anything significant in the area of career development. Of the 11 Paichais, 6 of them obtained a high school education. The remaining five participants finished primary school only. Nearly 70% of the participants (11 of the 15) did not have any consistent career. Some stayed in the vicinity of the casinos all day and tried to make a living out of gambling. All participants were asked about their earnings. The average earnings of Paichais were significantly lower than the non-Paichais. On average, a Paichai earned around HKD 6,236 a month, while a non-Paichai made around HKD 12,675. As a group, the average monthly income of all the participants in this study was HKD 7,493.

Their self- perception of their “work”

The majority of the Paichais took pride in their “work,” especially the local Paichais. They usually saw themselves as mentors or teachers for other gamblers. Their favourite games were baccarat and Sic Bo (a Chinese dice game). They believed that they were helping others to win by giving them tips about card playing. In return for their services, they would ask the other customers for tips. The following is how a Paichai sees his/her career:

“I teach people to play. I like to teach people to play in the casino. You know people come in the casino without the knowledge of how to play (Jennifer, a 32 year old female Paichai).”

“In the casino, a lot of people do not know how to bet in the appropriate way. I am more than happy to help them out (Kong, a 36 year-old male Paichai).

As instructors, Paichais took themselves as experts of the games. They would use a number of peculiar methods to predict the outcomes. One common way was looking at the pattern of the outcomes of the cards. In all casinos of Macau, there are computer displays recording card outcomes at baccarat tables. While the Paichais loved to regard themselves as masters of gambling and boost their ego as gambling experts, they were mainly tip-hustlers pestering gamblers for small change as a reward for their services.

Their lives in the casinos: dissociation from the outside world

For the Paichais, the casinos were their homes. They literally spent more time in the casinos than anywhere else. This is especially true for the three Paichais from Hong Kong. These Paichais had left their homes in Hong Kong, lost everything and found themselves in the casinos in Macau. In the repeated observation and interviews in the casinos, these Paichais, albeit being isolated from their families in Hong Kong, seemed to care less about their problems while they were in the casinos. They were always talking to others, running from one table to another and constantly looking for opportunities to hustle money from others.

In the casinos, the Paichais are most cheerful and happy. One Paichai (Ming, a 47 year old male Paichai) said that he would forget all his problems in the casinos. He was too busy looking for opportunities, seeking every means to hustle money from others and figuring the patterns of card outcomes. For him, the casino was a place of oasis or dissociation, a place he described as “my quiet place.” The dissociation effect of

gambling has been put forward by Brown (2002), who argues that addicted gamblers employ gambling as a means of dissociating from personal problems. During gambling, according to Brown, the addicted gambler can assume a different identity, which is free from his/her anxieties and worries. Thus, continuous gambling is functional for these gamblers, who are emotionally vulnerable or suffer from depression.

During the repeated observations in the casinos, Paichais were often busily calculating the odds or analysing the patterns of the cards. As they focused all their attention and energy on the games, they dissociated themselves from the anxieties and worries of their mundane lives. The dissociation was real and continuous, as one Paichai, Johnny (a 36 year old) told the researcher, he felt as if he was out of his usual self once in the casino. He would always be energetic, happy and excited. He could be gambling continuously for two days without the need to go to bed. In the casinos, they could always dream about recouping their losses and providing an existential meaning for their lives.

Further, the casino is a “place of dream and hope.” This description of the casinos was repeatedly given by the Paichais. The casinos have provided them with a city of fantasies and hope. These fantasies and hope are not just about winning money; they are a “recapture of glory and a lifestyle that gambling might have cost them (Fanny, a 48 year old female Paichai).” At least three Paichais (Ming, Fu, and Mary) talked about how their lives had been changed by gambling. They had lost their families, careers and most importantly, in their description, their dignity of life to gambling. Therefore, they reasoned that, if they should win big one day, they could recapture what they rightly deserved.

The noise and cheering of the gamblers, the loud music and the availability of friends presented these gamblers with a “residence,” a place where they found validation

and support from similar problem gamblers. Their prolonged stay and their dissociation from the outside world distorted their reality. One Paichai said: “For me, nothing is important except the casino. I cannot think what life would be without coming here (Kong, a 36 year old male Paichai).” Kong, like all the Paichais, found a new life in the casino, a life that was devoid of meaning except gambling. For them, the casino and its gambling was their subjective world. Kong told the researcher that he was married and had two children. Kong was originally from Chu Hai, a city in Mainland China neighbouring Macau. Kong had not been home for two years. He had been living in the casino since he lost all his savings two years ago. However, he never appeared to be depressed at all. Instead, he was most excited when he could win MOP 100 (about AUD15) on the baccarat. In his subjective world, money and gambling ruled over everything.

Casino gambling as a defense mechanism

Psychodynamic theories (e.g., Ciarrocchi, & Richardson, 1989; Rosenthal, 1987) seek to understand how gambling functions as an ego defense for the Paichais. Deep down, they might be in a low mood as almost all of them had forfeited their families, career, time and dignity in life for gambling. But once they were in the casinos, the stimulation and fantasies masked their depressed feelings. The fantasy of hitting the jackpot was a form of fantasy that repressed the negative effect and depressive feelings caused by life’s frustrations. In empirical research of problem gamblers, Haw (2009) reports that gamblers with high scores in impulsiveness often show lower scores in depression. Haw believes that impulsiveness mediates the effect of depression on his group of participants. That means that the level of depression of antisocial-impulsive gamblers is lower than that of

emotionally vulnerable gamblers. In the current study, none of the Paichais demonstrated any observable signs of depression. They never reported any chronic low moods. When they were in the casinos, their attention would focus on the cards. And the excitement and stimulation of the vibrant and noisy casino kept them in a constant high mood. This high mood might alleviate or even mask the effects of depression. None of the Paichais reported any suicidal ideation; their lives in the casinos were full of purposes: these were the purposes of winning, of recouping all losses and lastly of regaining dignity and pride. It is this hope that kept them gambling every day.

The fantasies of getting all back on one lucky day might well be a manifestation of the “megalomaniacal narcissism” of the inner child (Bergler, 1957). As a child, according to the psychodynamic tradition, a gambler consistently engages in wishful thinking. Such wishful thinking might focus on the milk of the mother or the unconditional love and attention from others in childhood. According to this theory, as a consequence of repeated frustration in life, Paichais might regress to a childhood state and be entrenched in infantile wishful thinking – in this context, focused on the winning of a multi-million jackpot.

Observation of Paichais’ behaviour has lent support to the psychodynamic claims. Like children, they enjoyed staying up all night and having fun just by watching others gambling. They enjoyed sharing complimentary food and drinks with each other and begging other customers for money, much like children asking parents for coins. They also liked having fantasies about riches. As in the case of small children, these dreams often took the form of visits to the Disneyland, becoming a superman and saving mankind or being the Lone-Ranger or James Bond who protects one’s country. For the Paichais in the current study, their wishful thinking was about hitting the jackpot in the Caribbean stud

game.

Along with the repression of depressed moods and escape to fantasies, Paichais used extensive rationalisation and intellectualisation of their winnings and losses. Winning they tended to attribute to their ability. Some might even attribute it to Karma. For example, Ha (a 32 year old female Paichai) once told the researcher that she had lost a total of at least 3 million Hong Kong dollars (approximately AUD 442,000). Because of her gambling, she seldom saw her husband. Now she was penniless and had been stranded at the New Lisboa Casino since 2008. She often re-invested all the money she received from other customers. She had repeatedly told the researcher that her winning days were due as she had lost everything in life. Her fate was due to turn good. Her thinking might be more than a manifestation of the heuristics and biases that Coventry (2002) and Wagenaar (1988) suggest: her use of intellectualisation was an ego defense for her existence. Through intellectualisation, Ha presented a reason for her failures at gambling, which gave her comfort and validation for her chasing of losses. In other words, intellectualisation has been a functional defense mechanism for Ha and the other Paichais as it gives them an existential meaning to their continued gambling.

According to existentialist psychology (Frankl, 1997), people are always searching for meaning in their life. Such meaning will render people a purpose in life. In the face of frustrations and life's adversities, meaning in life helps one to withstand pain and suffering. Such meaning might take the form of a loving family, a lover or a mission in life such as caring for the sick and elderly. Without these goals, people will be living in an existential void, a hopeless vacuum which causes threat and damage to one's ego. People thus tend to seek out goals to guide their lives. Hence, a homeless Paichai's continued gambling has an existential purpose: it gives him/her a goal and meaning in life.

To gamble is to re-coup one's losses and dignity in life.

Lastly, some Paichais appeared to employ reaction formation unconsciously to deal with frustration in life. One interesting finding in the interviews is that the majority of the Paichais held a positive attitude towards the casino management. For example, Jenny (a 52 year old female Paichai) described the casino in very positive terms: it was a place where she could find her friends, enjoy free food and drinks and a “nice and cozy” place to meet fellow gamblers. Jenny even said that the casino was her second home and the place to pursue her dream to become rich. This portrayal of the casino was very common among the Paichais in this study. Hence, they preferred spending most of their waking hours inside the casinos. Even when they did not gamble much, as they were often poor, they wanted to be in the casinos. They might go there to meet friends, to pick up a few free sandwiches or just to look and check. In the casinos, they were often the most boisterous group of gamblers. They liked to discuss with others about the “ways” of the cards, the stories of winning and losing and lastly the lucky tables of the day. However, these positive feelings towards the casino were mixed with an intensive yet repressed hatred towards the casino. It was the place where they had lost almost everything. Yet, they could not survive without the food of the casinos. It was the last hope of their lives. One statement by a Paichai clearly demonstrates this perspective: Jenny (a 52 year old female Paichai) remarked that if the casinos would not let her go in, she would rather die.

This love/hate paradox helps to explain that, while they were happy to be in the casinos, enjoying the company and the complimentary food and drinks there, at the same time, they also loved to yell at the dealers and the casino management when they lost. Even though they might not be wagering any money, they would be very happy if other

gamblers won the jackpot. Seeing others beating the dealers seemed to be a source of vicarious reinforcement for them. This was a source of satisfaction for them.

Their peculiar pattern of play

In order to be constantly in the action of gambling, Paichais had a peculiar pattern of play. One of their betting patterns was the “maxi-mini method.” In this strategy, they would stay around the baccarat table for the maximum amount of time to check the “ways” of the outcomes. After they had a hunch regarding the “ways of the outcomes of cards,” they would usually bet the lowest amount. For instance, during an interview, Mary (a 44 year old female Paichai) liked to wander from table to table to look for “patterns of outcomes” in baccarat. After one hour, she put down MOP100 on the “banker” and MOP110 on the “player” in the same baccarat game. Thus, she was actually wagering MOP 10 (AUD 1.25) on the “player” in that game. As the minimal bet is MOP 100, this type of play could prolong her gambling and her stay in the casino. Even though she was betting a small amount when compared to other gamblers, she always cheered and screamed at the table.

By using this “maxi-mini” method, Paichais could extend their play and create meaning to their stay in the casinos. To be continuously in the “action” seemed to be their basic purpose in wagering. The excitement might not be the winning of money; it was the excitement of the game and the arousal connected with it that they were looking for. The observation notes indicate that they would never invest more than a few hundred dollars on one game. The main reason for this is that they were always poor. However, even when they had the money, they enjoyed putting a small amount on each game. A good analogy is with young children at a sumptuous buffet dinner. The young children love different

types of food. Thus, they will hop around tables, looking and trying to taste all kinds of food in small amounts. And they never want to leave the dining hall, just like the Paichais never want to leave the casinos.

Further, Paichais had an ingenious method of tracking and predicting the card outcomes. They would employ a detailed recording of the last 36 or even 72 sets of outcomes of cards. In achieving this goal, they focused all their attention on the cards during gambling. Most Paichais said that they were “not interested or motivated” in or by anything but gambling. Some even reported that they lost their appetite when they were at the gambling table. They might only eat one box of cup noodles during gambling sessions. Their minds were fully focused on the “ways”, and nothing else was important.

The game that the Paichais in the current study liked most was baccarat. Almost all would avoid tables with few customers. Instead, they would gather around tables with a lot of patrons, which they termed as “hot tables.” Paichais would seldom gamble on the electronic gaming machines (EGMs). Fu (a 52 year old male Paichai) once remarked that he could not trust the machines as he believed that the casino management can manipulate the machines. He liked baccarat because he could touch the card. He saw baccarat as a fair game as he could see the dealers shuttle the cards and he could touch the cards. Paichais have a belief that if they can touch the cards, they can have more control on the outcomes of the cards. In fact, none of the Paichais in the study liked to play the EGMs. The touching of the cards served as a type of control Paichais exercise in their subjective world. The other type of control was the extensive use of superstition.

The use of superstition in gambling

The majority of Paichais employed superstitious means to assist them in their

prediction of card outcomes. Two Paichais used lucky charms to help them determine the outcomes of the cards; another one resorted to the traditional Chinese astrological calendar in his prediction. In this approach, the Chinese astrological calendar would predict a person's lucky moments according to the birthday of the person. Thus, each person should have different times and zones of luck. Paichais, with their experience in studying the patterns of outcomes, would suggest to the other customers the flow of the dealt cards and the patterns according to their birthdays.

Johnny (a 36 year old Paichai), for example, would study the patterns of the last thirty six hands of dealt Baccarat cards to look for future trends. For instance, if the "Banker" won 10 times in a row, he would expect the "Player" was due to win. This type of thinking typifies of the gambler's fallacy (Langer, 1975). Others like Jenny (a 52 year old Paichai) used specially-made dice to predict the card outcomes. She would throw the dice before she bet. She said that her predictions were at least 90% accurate. The researcher observed Jenny's prediction on a number of occasions in the New World Casino. Her predictions were right roughly 50% of the time. However, she would often attribute her misses to the misdeeds of others. For example, baccarat players often yell at the cards loudly or rub the cards on the table. So, Jenny would often make up excuses for their misses.

Superstitious beliefs might help the gambler develop a control over uncontrollable events. Langer (1975) has demonstrated that people employ superstition in games of chance, where they have no control. Thus, superstitious beliefs give people secondary imaginary control over uncontrollable outcomes. In Asian culture, fate is never static; people can alter their luck by means determined by behavioural superstitions (Bovee, 1998). In this perspective, people can change or enhance their luck by a number of

peculiar behaviours. In the study of mahjong players in Macau, Ohtsuka and Chan (2010) found that problem gamblers were more likely to endorse superstitious beliefs than non-gamblers. Examples of these beliefs included “going to the toilet after a series of losses to change luck” and “wearing red underwear to strengthen luck.” It is interesting to discover that non-gamblers endorsed quite a number of superstitious beliefs in gambling, though to a lesser extent when compared to problem gamblers. Thus, the authors argue that superstitious beliefs are an integral part of the Chinese culture.

The Paichai’s moral view

As a group, Paichais did not have any desire or purpose to lead a lawful life. Their sole purpose in life was gambling and chasing the money they lost. Thus, they would want to seek every means, legal or illegal, to finance their gambling and prolong their stay in the casinos. Their legal means included teaching others to gamble and running errands for gamblers. Very often, they served as a servant for other gamblers by ordering food for them and cheering and providing emotional support for them during their gambling.

In addition to these legal means, Paichais were seen to engage in a number of illegal activities in order to obtain money from others. Some Paichais would readily lie to obtain an advantage. For example, during repeated observation, Fu (a 52 year old male Paichai) was found lying to strangers on numerous occasions. Some of his typical lies were that he had lost his wallet and was stranded in Macau. Or he would beg for money, saying that they had been hungry for days. Subsequently, when people gave him money, he would use the money for gambling. Another Paichai Mary (a 44 year old Paichai) often pretended to be sick in the casino and ask passers-by for money. Once, the

researcher saw her approach a young lady, telling her that she had been sick for one year and had little money for medicine. The young lady took her to a nice meal in the restaurant and gave her a few hundred dollars. After the lady had gone, Mary took the money and re-invested it into the baccarat game. She even joked about how stupid the young lady was in trusting her. Apparently, she, like all Paichais, lacked the empathy to understand the pain they had caused others, even their own families

Lying was just one of the many manipulative behaviours of Paichais. Some Paichais were found stealing money from other gamblers or serving as middlemen for illegal loan sharks. Loan sharks in Macau usually belong to the Chinese mafia and they charge very high interests. An interesting finding is that some Paichais had been victims of these loan sharks. After years of gambling in the casino, they might identify with and subsequently joined the loan sharks to hurt other gamblers. This might be another demonstration of reaction formation. All the Paichais in the study lacked social responsibility; none appeared to possess any insight into their behaviour. They did not show any remorse over the pains they incurred to others. Their only regret might be that they had lost a lot of money in the casino.

The Paichais' moral development corresponded to the pre-conventional stage of moral development (Kohlberg, 1981). Individuals in this stage base their moral judgment on their view only. Being egocentric, they do not empathise with the perspectives of others and they never honour the rights and privileges of others. They often have problems with authority figures and the laws of society. Their conscience development is poor.

Socially, Paichais in the present study were opportunistic and manipulative in their relationship with others. None of them reported missing their families or loved ones

when they were gambling in the casinos. They were always looking for means to scratch a penny for gambling. In the casinos, they would wander around the gaming tables, seeking an insight into the “ways” or the patterns of the outcomes of the cards. Their discussions with others centered on gambling and money. All other issues were not important to them. Thus, they saw no wrong or shame in begging or lying to obtain money. Their only concerns in life were money and gambling.

Their cognitive distortions

Paichais have a peculiar pattern of understanding of their subjective world. To them, their preoccupation with gambling is everything; gambling is all they see and think about every day. Mark (a 40 year old male Paichai), for instance, said that every day, starting from the moment he woke up, he ruminates on issues of gambling: the patterns of the card outcomes, the opportunities to obtain more money for gambling, “the hot tables” (where the gamblers always win), and the play strategies that win big. Their cognitive schema is often filled with these issues. Nothing is more important than gambling. On the good side, this serves as a defense mechanism of escape: gambling becomes an oasis from their problems. However, an undesirable outcome is that they are not interested in any other issues of their lives and their communities.

Two dominant features in their cognitive schema are money and gambling. They interpret everything in their world in terms of money and gambling. For them, money only serves one function: providing capital for wagering. If they receive one hundred dollar tips from other gamblers, they will not use the money for food nor clothes. They invest all the money in gambling. These issues are even more important than their families. This explains why they choose to stay in the casino rather than returning home

at night.

Paichais in the current sample had a significant number of cognitive biases and heuristics. They tended to attribute winning to their abilities while explained away the losses to the wrongdoings of others. Jenny (a 53 year old Paichai), for example, often attributed many of her losses to the behaviour of other gamblers or the dealer. On one instance, she told the researcher that she lost money when other gamblers on the baccarat table cursed and yelled at the cards. This, according to her, had changed the flow and the outcomes of the card. This incident might have been more than an attribution error; it was an unconscious means by which she validated her gambling behaviour. This gives the otherwise hopeless Paichais the stamina and the support they need in their daily gambling and, perhaps, struggles in the casino.

Coventry (2002) has described a number of the cognitive biases of problem gamblers. According to this list, the Paichais in this study exhibited the following cognitive distortions: (a) Hindsight bias: they were inclined to be “surprised” by what the card outcome was and they would seek plausible explanation to explain their losses, (b) Reliance on habits: they followed the same betting method and went to the same casino areas to gamble as they might have won in the past in that location, (c) Illusory correlation: the belief that two variables such as dealers on the baccarat tables, weather, furnishings of the casinos or even the colour of their underwear could influence the consequences of the bets even though there was no such relationship, and (d) Illusion of control: the belief that they could control the outcomes of the cards by performing certain behavioural rituals such as rubbing the card on the table or yelling at the cards.

Attempts to quit and control gambling

None of the Paichais in the present study have attempted to seek treatment.

When asked about the reason for this, most of them said that they were happy to be in the casinos, even though they understood that they had lost a lot, in some cases, everything, in gambling activities. When asked about whether they had heard about the availability of treatment, most of them said “no.” Out of 11 Paichais, Ming (a 47 year old male Paichai) was the only one who had made enquiries about the self-exclusion policy in the casinos. During an interview, he even showed the researcher a copy of the signed application. But he never sent in the application. In his description, he would wait until he recovered some of his losses before he would send in the form. Apparently, he had little motivation to attempt treatment.

The Paichais’ personality development

As a group, the Paichais in this study represented a type of antisocial and reckless gambler. They held little regards to the traditional norms of social responsibilities. They were impulsive and were prone to seek stimulation in gambling activities. Their lifestyle centered on casino gambling. They did not have any insight nor any remorse about their gambling behaviour. Hence, they did not see any need to seek any help for their gambling.

Their personality development fits the description of the antisocial/impulsivist gamblers according to the Blaszczynski and Nower (2002) pathways development of problem gambling. The personality characteristics of such gamblers are impulsiveness, recklessness and difficulties with delaying the gratification of needs and wants. They have significant deficits in controlling impulses. They are socially irresponsible and show contempt for a law-abiding lifestyle. In childhood, these individuals might have had conduct disorders and/or attention deficit hyperactivity disorders (Blaszczynski, Steel &

Farrel, 1997; Blaszczynski & McConaghy, 1994). Often they are underachievers in school and in their career development. To illustrate their personality development, the following are the personality and social development of two participants, whose stories are prototypical of the social and clinical construction of the Paichais in our study.

Wally (a 52 year old male Paichai) was born in Mainland China. He moved to Macau to seek a better life some thirty-five years ago. He was educated to the primary level. The researcher recruited Wally into the study through the process of snowballing. In the seven interviews with and observations of the participants, Wally was seen to be a fun-seeking person who had over thirty years of gambling experiences. He loved to go to the casino every day, even during the Lunar New Year Holiday. He told the researcher he “had to” check the business every day. He had been married three times, twice In Macau and once in Mainland China. Now he was living with a girlfriend. He had a daughter who was studying social work in a local college.

Wally was a construction worker prior to his acquisition of gambling habits. Construction workers in Macau are usually employed on a contract basis. Each contract may last for a few days to a few months. Workers are free to seek new employment after each contract. Some workers are thus paid daily. A typical worker gets around MOP 500 a day (roughly equal to AUD 78). It has been a tradition for the Macau workers to have dinner and beer after each working day. For Wally, he picked up his gambling habits some thirty years ago. After getting his paycheck each day, he would go into the casino to gamble. Sometimes he would stay there all night, skipping work in the morning. His impulsiveness could be seen in his lack of control over his gambling. He told the researcher that he just “could not” leave the casino once he started gambling. He failed to achieve anything significant in the area of career development. Ten years ago, he decided

to become a “full-time” gambler in the casino and quit work. Now, he was in the casino every day.

Wally never admitted that he was a “Paichai,” as the name carries a derogatory label. He told the researcher that he was an instructor who taught people play. He took much pride in his “work.” In seven interviews, he showed the researcher numerous techniques of studying the “ways” of the baccarat games. For instance, he told the researcher that the card outcomes often followed a fixed pattern. The patterns were only recognisable by full attention and expertise, which only a few gamblers could master. He proudly said that he knew all the skills of gambling. However, during another interview, he told the researcher that he had lost at least a few million in the last thirty years.

In addition to being an instructor in gambling, Wally worked as a middleman for loan sharks. His work was to search for gamblers who needed a loan and refer them to the “big boss.” The following is an excerpt of his daily work:

“I walk around the casino all day to spot suitable customers. I always look for those who are holding a lot of chips. Then, I follow them until they lose everything. I ask if they need help. If they do, I take them to see the boss. Take them to a café and run a background check on this man. Call his wife. After you lend him money, stay with him or call his wife to bail him out (Wally, a 52 year old Paichai).”

“Usually we lend him ten or twenty thousands. Not much. Always stay with him. If he doesn’t pay, take him to his family in Hong Kong. If their family members are middle class people, they will be afraid of us. We will make sure they pay. Please do not ask me what I will do. We can chop his hand off. Anyway, they borrow money from us and they have to pay. If we lend out ten

thousand, we demand fifteen thousand back in a week. If they delay paying the money, we demand more interest (Wally, a 52 year old Paichai).”

When Wally was talking about his life as a loan shark, he seemed to carry little remorse for the pain he caused to others. He believed that was part of his way of making a living. His callous attitude towards others’ sufferings was a good demonstration of his antisocial behavioural patterns. He was socially irresponsible to others, even to his own family. He told the researcher that he had a wife and a child in Mainland China. But he seldom visited them. In his life, gambling was everything.

Like other Paichais, Wally was a vivid gambler. He enjoyed going to the New Lisboa Casino late at night and staying in the casino all night. He was most happy in his “usual” floor; i.e. the second floor of the casino, where he and his clan claimed one corner as their sphere of power and influence. He liked to hop from table to table, studying the “ways” of the games and looking for customers. When he was around the tables, he would be fully focused on the cards. In the New Lisboa Casino, there were live music and bikini girls dancing on the stage all day long. But Wally was not interested in that at all. He told the researcher that, once he was in the casino, he would focus on the cards and ways to make money to finance his gambling. One last comment on Wally is that even though he had lost over 3 million dollars MOP in the casinos in the last thirty years (that is in his own estimation), he appeared not to have any regrets about gambling or to be depressed over his losses. When asked about whether he would stop gambling, he plainly said that it was his decision to gamble and he would continue to be a gambler for all his life.

Wally fits nicely into the anti-social-impulsivist type of the Blaszczynski and Nower (2002) model. He was reckless, had little impulse control, and was socially

irresponsible. He constantly sought excitement in gambling. He would lie for personal gain and hurt others for his own benefit. He had little regard for the suffering of others and had little insight into his own problems. He could, thus, be classified as a pathological gambler according to the DSM IV-TR (American Psychiatric Association, 2000). His problems were not amenable to treatment because he did not want to change; he had no desire to stop gambling. For him, as with the other Paichais in this study, gambling was his life and his job.

In addition to being antisocial and impulsive, Wally showed a number of traits indicative of personality disorder. First, he was narcissistic and egocentric. If he won big in the casino, he would buy good clothes and have an elegant dinner. He would not give the money to his wife in Mainland China or repay his loans. Secondly, he was suspicious towards the world around him. In the many interviews, Wally often said that other gamblers had plans to steal his money, or that the card dealers had certain buttons under the table to change the flow of the cards. Wally had paranoid feelings towards others and the outside world. On one occasion, the researcher saw Wally running hectically away from the casino. When asked about the reasons of his behaviour, Wally said that he had won MOP 2,000 from the New Lisboa Casino, and he believed that the casino authority was following him and would beat him up. This paranoid ideation was typical among Paichais in the study. Paichais always believed that the casino management had certain schemes to change the cards or follow them when they won a lot of money. Wally even went further to believe that New Lisboa Casino had all his personal details, including his address, and would persecute him one day. Wally and the Paichais lend support to Blaszczynski and Steel's (1998) observation that antisocial-impulsive gamblers often demonstrate a number of personality characteristics and share very similar

development pathways.

The second case is Fanny (a 48 year old Paichai). Fanny was recruited in the casino when she was gambling with her friends. Fanny told the researcher that she was married and had a daughter though she refused to elaborate more on the details of her family. Fanny, like Wally, had been a factory worker prior to her acquisition of her gambling habit. She started gambling some twenty years ago. First, she started to gamble with friends in the casinos. Her gambling behaviour intensified when she quitted her factory job in 2000. Then she began to stay in the casino every day, taking advantage of the complimentary food and drinks. She made her living by begging and hustling other gamblers on the baccarat tables. She told the researcher that she had been doing this job for ten years.

Fanny shared a number of behavioural characteristics with the antisocial-impulsive gamblers. She was socially irresponsible and exhibited little empathy for the pain she had caused to others. Secondly, she was impulsive and reckless in her gambling. However, like Wally, Jenny never demonstrated any signs of depression, even though she has lost almost everything due to her gambling. She did not have any significant career development and, most importantly, she had lost her dignity as she had to hustle others for tips every day. In the several interviews, she seemed to be in a happy mood when she gambled. The following is an excerpt of how she described her life and her gambling.

“I used to work in the factory as a worker. I got paid around MOP150 a day (roughly about AUD 23). I had to pay for the lunch and transportation. Now I come here every day. I don’t have to pay for anything. There is always free food and drinks. It is fun to be in here. I can play the games. And I can

teach others as well. Life is good. Some social workers said gamblers need treatment. They are crazy. If you kick me out of the casino today, I will die (Fanny, a 48 year old Paichai).”

The New World Casino was her second home, where she spent the majority of her time of the day. She enjoyed meeting friends there, hanging around the baccarat tables and, most importantly, studying the “ways” of the games. She only gambled occasionally, as she was always poor. Like Wally, Fanny was not motivated to seek treatment as her life was built entirely on gambling.

In the present study, four participants were non-Paichais. These gamblers, by comparison, had a stable and legal means of work. Their occupations were mostly semi-skilled work in offices and factories. They were loyal to their career as they would only come to the casino on weekends. Their educational achievement, as a group, was comparatively higher than the Paichais. All of them achieved at least a high school education. One individual (Derrick, 24) had finished a college degree and was pursuing a master’s degree in tourism.

When compared to Paichais, these four participants, as a group, earned more. They made an average of HK\$12,675 a month. (Paichais, as a group, earn around HK\$6,236 a month). Usually, they visited the casinos in Macau twice a week. They always returned to work after gambling exploits in Macau. However, they did not devote much effort to their career development. For example, one participant, Joseph (a 28 year old male gambler) had worked in more than 10 different jobs in the last 10 years. He never put his mind to work. And in weekends, he went to the casinos to gamble. For these non-Paichais, a career was just a job that could pay their rent and give them money to gamble in the casinos during weekends. The following is how Joseph described his career

development:

“My Mother left my father when I was four. During my school years, I never studied. I left school after Form 2. Since then, I worked in a number of different trades. I worked as a cleaner in 2003. Then I was laid off. A friend of mine told me it would be better to learn some skills. Now I am enrolling in an elevator traineeship. I receive HK\$6,700 a month (about AUD 1,100) (Joseph, a 28 year old non-Paichai).”

The lack of career development is typical of these non-Paichais. Gambling was at first a type of hobby, which they took up early in life. As their gambling behaviour intensified, they, like all the Paichais, reported a preoccupation with gambling and loss of control. However, their extent of loss of control was less serious than the Paichais – all of them could at least return home at night. They did not stay in the casino all night like the Paichais. One of them, Sylvia (a 35 year old female gambler) said that she always rushed back to Hong Kong as she was afraid to miss work (she was a clerk in a small firm).

All of the non-Paichais can be classified as problem gamblers according to their scores on the PGSI of the CPGI (Ferris & Wynne, 2001). But as a group, their involvement in gambling activities was not as extensive as the Paichais'. Their average score on the PGSI was 16.5, whereas the average PGSI score for the Paichais was 21.18. One significant difference between the two groups of gamblers is that non-Paichais had a significant sense of guilt about their gambling. All of them saw the damage they had brought to their family, and they would do things to make up for their bad behaviour. Two of them said that they would try to pay back the money they owed to their friends and families. One (Joseph, a 28 year old male non-Paichai) said he would seek treatment for his problems. As a group, the four non-Paichais' major problem was their “preoccupation

with gambling” and “chasing.” However, they were able to achieve a certain level of control. Thus, they were able to stop gambling when they lost over their limits. Secondly, they had not been involved in criminal activities nor would they beg for money. Most importantly, they had a conscious control over their gambling and they had a home to return to at night. By contrast, a lot of Paichais had no home. The following is an abstract of how the concept of “home” means to two groups of problem gamblers; namely non-Paichai and Paichais.

“I always go home after gambling in Macau. It’s dangerous in the casino at night (Richard, a 32 year old male, non-Paichai).”

“I sleep anywhere. You have seen me a lot of times in the casino. Sometimes, I take a nap on the couches. Other times, I sleep in the empty malls outside (Ming, a 47 year old Paichai).”

Table 2: Demographic Details of the Participants

| | Pseudo nym | Age | Gender | Marital Status | Work | Education | CPGI | Monthly earnings (HKD) | Age Group |
|----|---------------|-----|--------|-------------------|-------------|---------------|------|------------------------------|--------------|
| 1 | Wally | 52 | M | M | Paichai (L) | Primary | 22 | 15,000 | 51-60 |
| 2 | Jenny | 53 | F | M | Paichai (L) | Primary | 23 | 7,500 | 51-60 |
| 3 | Fanny | 48 | F | M | Paichai(L) | Secondary | 25 | 5,000 | 41-50 |
| 4 | Ming | 47 | M | S | Paichai (H) | Secondary | 25 | 4,500 | 41-50 |
| 5 | Ha | 32 | F | M | Paichai (M) | Primary | 18 | 4,000 | 31-40 |
| 6 | Johnny | 36 | M | M | Paichai (L) | Secondary | 16 | 5,000 | 31-40 |
| 7 | Mark | 40 | M | M | Paichai (L) | Secondary | 24 | 3,600 | 31-40 |
| 8 | Fu | 52 | M | M | Paichai (H) | Primary | 19 | 3,500 | 51-60 |
| 9 | Mary | 44 | F | M | Paichai (H) | Secondary | 19 | 7,000 | 41-50 |
| 10 | Jennifer | 32 | F | S | Paichai (L) | Secondary | 20 | 7,000 | 31-40 |
| 11 | Kong | 36 | M | M | Paichai (M) | Primary | 22 | 6,500 | 31-40 |
| 12 | Derrick | 24 | M | M | Clerk | Post-graduate | 15 | 15,800 | 21-30 |
| 13 | Joseph | 28 | M | S | Apprentice | Secondary | 14 | 6,900 | 21-30 |
| 14 | Richard | 32 | M | S | Salesperson | Secondary | 17 | 8,000 | 31-40 |
| 15 | Sylvia | 35 | F | M | Clerk | Secondary | 20 | 20,000 | 31-40 |

Paichai (L): Local Paichai: those who were born and raised in Macau.

Paichai (H): Paichai who is from Hong Kong. Usually they are problem gamblers, who have lost all their money.

Paichai (M): Paichai from Mainland China.

Testing of the hypotheses

1. The Paichais, as a group of distinct problem gamblers, share common developmental pathways. During their adolescent years, proximity to gambling was a significant factor in their development of problem gambling. They had early wins in the gambling career, which were followed by subsequent losses and chasing.

This hypothesis has been confirmed. All Paichais reported that they lived or worked in locations near to the casinos during their adolescent years. Also, they came from gambling families. They often started gambling early in life. Early wins, subsequent losses and chasing were reported in all these cases.

2. When compared with non-Paichais, Paichais have a more intensive involvement in gambling. Their level of problem gambling should be more serious than non-Paichais.

This hypothesis has been confirmed. As a group, Paichais had higher scores on the PGSI than non-Paichais. Paichais demonstrated more pathology in terms of loss of control of gambling, chasing losses, the lack of remorse for gambling and their poor attitude towards treatment.

3. The Paichais' worldview centres on gambling only.

This hypothesis is confirmed. Paichais were preoccupied with issues associated with gambling. The majority of their time and effort was spent on obtaining money for gambling, or studying the "ways" of the games and methods to beat the dealers.

4. The Paichais' pathway development best fits the antisocial-impulsive gamblers according to the Blaszczynski and Nower (2002) model.

This hypothesis has been confirmed. The Paichais' pathway development best fits the antisocial/impulsive gamblers in the Blaszczynski and Nower (2002) pathways development model.

Chapter 5

Discussion

The current study has investigated the problem gamblers known as Paichais who spend most of their waking hours in the casinos in Macau. Their behaviour and cognitive patterns can best be interpreted by the Blaszczynski and Nower (2002) pathways development model of problem gambling. According to this model, problem gamblers can be classified into three developmental pathways; namely the behaviourally conditioned type, emotionally vulnerable type, and the antisocial-impulsive type. Paichais best fit the description of antisocial gamblers. Gamblers of this type possess a number of behavioural and cognitive characteristics. Firstly, they do not have adequate insight into their own behaviour. They are reckless and impulsive in both their general behavioural patterns and in their gambling behaviour. They are constantly looking for excitement and stimulation. Their impulsiveness might result in criminal behaviour. They show little genuine remorse for their antisocial behaviour.

As a group, Paichais demonstrated more pathology in gambling than the four non-Paichais in the study. Most Paichais had difficulties in the area of impulse control in their gambling, and in their preoccupation with gambling and chasing. Their preoccupation with gambling was particularly strong as they appeared to think about gambling all the day. Their thinking and lifestyle centred on gambling only. They had no other goals in life. They have no remorse over their gambling behaviour. And none of them have participated in any treatment for gambling.

The main differences between the Paichais and non-Paichais were their personality characteristics, lifestyles and the time they spent in the casino. The four non-Paichais had full-time employment and they usually would return home at night. They could demonstrate a certain degree of conscious control of their gambling. Some

would say that they would always go home at night. And they, unlike the Paichais, did not stay in the casinos daily. In other words, they were not “resident” gamblers in the casinos.

Blaszczynski and Nower’s (2002) pathways model argues that the proximity to gambling in childhood is a crucial factor in the development of problem gambling. This factor can explain the development of gambling problems for the Paichais. In the present study, proximity can carry two meanings: psychological proximity and geographical proximity. Paichais usually came from working class families, which condoned or even encouraged gambling. In the literature, gambling problems are often associated with low socio-economic status (Aasved, 2003; Wardle et al., 2007). Devereux (1968), in his classic study of gambling and social class, argues that gambling provides a safety valve for the lower classes. Through gambling, individuals in the lower classes can at least have a hope for advancement in their living conditions. Such hope can present a short term hope for the poor who are disillusioned with their lives (Ginakis & Ohtsuka, 2005). Thus, monetary gain is the basic motivation for the gambling behaviour of individuals from the low socio-economic class of society.

In Chinese culture, gambling is considered to be a family activity. Papineau (2005) in her study of the Chinese immigrant community in Montreal, argues that the Chinese family fosters gambling through the tutelage of gambling. Gambling is considered as a play activity and children, from a young age, are exposed to it. This might predispose the children to gambling when they grow up. In the current study, all the Paichais started to gamble at a young age. They acquired their gambling habits either from family members or from association with friends at school and in their neighborhood. Very often, they reported that their first gambling experiences were mahjong games with family members in Chinese festivals. Mahjong, though being considered as a family

game, could be a possible gateway to gambling. In a study that investigated superstitious beliefs among mahjong players, Ohtsuka and Chan (2010) found that mahjong players endorsed more superstitious beliefs than non-mahjong players. Superstitious beliefs appear to be a part of Chinese culture as the majority of the participants endorse these beliefs. Some of the more common superstitious beliefs are those that can enhance one's luck in gambling such as going to bathroom after repeated losses.

In an extensive review of culture and gambling behaviour, Raylu and Oei (2004) suggest that certain cultural groups are more likely to gamble than others. In their view, cultural values and beliefs, the process of acculturation, and the influence of culturally determined help-seeking behaviour can play an important role in the acquisition of problem gambling. Chinese parents are often found to introduce gambling to their children. In Australia, Moore and Ohtsuka (2001) found that Anglo Australian youth were more likely to be introduced to gambling by parents whereas European-Australian youth and Asian-Australian youth were introduced to gambling by peers. Asian-Australian students were less likely to gamble than Anglo-European students, spent less money on wagering, but scored higher on the problem gambling scale.

This argument is applicable in the understanding of Paichais' pathway development. Most Paichais started to gamble socially during adolescent years. And by the age of 20, most said that they had become regular casino visitors. Their usual game was baccarat. One of the contributing factors in their acquisition of gambling was their geographical proximity to gambling. Proximity, as a major factor in the development of problem gambling, has been reported in the literature (e.g., Rush, Veldhuizen & Adlaf, 2007). Easy access to casinos can contribute to heavy gambling especially for those who are predisposed to problem gambling. In Macau, there are over 33 casinos in a community less than one tenth the area of New York City. Anyone in Macau can gamble

in a casino within fifteen km from their home or place of work.

The current findings support Wynne et al.'s (1996) assertion that societal accessibility and availability of gambling opportunities contribute to young people's gambling propensity. In a comprehensive study employing two Australian samples (one youth sample consisted of 751 high school students and one adult sample of twenty one cases), Fabiansson (2008) discovered that children were often introduced to gambling by parents when they were young. Gambling activities were first undertaken as types of social recreational pastimes. But, for a group of students, their attitudes towards these recreational activities had been distorted by their absolute quest for winning. Their gambling persisted into adulthood and, like the Paichais, some of them became problem gamblers.

In addition to proximity to gambling, the Blaszczynski and Nower (2002) model suggests that early wins are crucial factors in the development of gambling. Almost all Paichais reported having early wins in gambling, which might range from HK\$15,000 to HK\$400,000. This is a huge amount for working class individuals in Macau, whose usual daily wage is only HK\$200 (AUD 30). In the participants' own description, an early win was important as this reinforced their gambling as a means of achieving financial success. This hope is the main source of their motivation of gambling later in life.

The present research also supports Lam's (2004) study of casino gamblers in Hong Kong. In her study, nineteen out of twenty one problem gamblers experienced a big early win in their gambling history. The author asserts that early wins gave the gamblers, especially those with little education, hope and that they could move upwards in the society. In the current study, most of the Paichais completed only secondary school; some even stopped education at the primary level. They had little chance to achieve financial success except by gambling. And their early wins might have given them the false hope that

gambling is the short cut to road of success – a dream which they always cherish and which helps keep them gambling.

Some Paichais, especially the three from Hong Kong, had a slightly different development pathway. Though these three all shared the characteristics of the antisocial gambler's behavioral patterns, they developed their problem gambling relatively later in life. Though they all gambled socially during adolescent years, their development of problem gambling often came as they encountered crises in life. For example, they gambled more when they were laid off by their companies or accepted early retirement. They were then given a relatively large amount of money as compensation. They then started to go to the casinos in Macao on a daily basis. And within a year, they lost all their money and became resident gamblers in Macau. The present study indicates that, in times of financial distress, more people can become problem gamblers.

Thus in times of economic downturn, it is reasonable to suggest that low-intensity gamblers could end up as Paichais. Among the participants in the current study, the four non-Paichais could develop more gambling problems if they were laid off from their work. Being unemployed, these gamblers might have more time for gambling. They might go to the casinos more often and stay longer as they would not have to return to work the next day.

The peculiar cultural situation in Macau has facilitated the development of problem gambling among the gamblers. Unlike most countries, there are few statutory requirements for responsible gambling in Macau (Wong, 2009). In Australia, however, there are strict policies that promote responsible gambling. For instance, Breen, Buultzen, and Hing (2005) have examined the levels of implementation of responsible gambling in gaming venues. They examined 30 venues and interviewed 35 venue managers. The level of implementation varied but the majority of the venues had implemented between 40

to 60 percent of the responsible gambling code in the gaming industry. Gaming operators can forfeit their license if they do not follow such regulations.

In Singapore, where two new casino-type integrated resorts are being built, the government established a new government agency, the Casino Regulatory Authority, to promote responsible gambling in 2009. The purpose of this organisation is to develop codes of responsible gambling in Singapore and to investigate malpractice in casino management (Kian, 2009). However, in Macau, almost the only effective responsible gambling measure is the rule that a person has to be over eighteen years of age in order to enter a casino. In some American casinos in Macau, like the Sands and the Venetians, there are provisions for self-exclusion. But there is very little promotion of these policies. Very few people have joined the scheme or even heard about it.

In order to attract more patrons, all casinos in Macau are open 24 hours a day and every day of the year. Almost all casinos provide complimentary food and drink, free entertainment and free transport for patrons. As long as the customers are not making a nuisance for others, they can stay in the casinos as long as they want. To facilitative patrons drawing money for gambling, automatic teller machines (ATMs) are located in the casinos. There are illegal loan sharks operating legally in all casinos, and they charge very high interests. In Australia, it is a statutory requirement that the gambling operator should not let any patrons gamble under the influence of alcohol. Australian gaming operators must satisfy requirements according to Australian gaming laws regardless of the jurisdiction in which subsidiaries operate (Delfabboro, 2008). So, security personnel would ask the gambler to leave if he/she is drunk. In Macau, the opposite applies: as long as the customer is gambling, the gambling operator will give him/her complimentary drinks. In other words, the majority of the casinos care only about their own profits, not the welfare and interests of the gamblers.

Thus, a lot of gamblers in Macau visit the casinos a few times a week; some even go to the casinos daily. It is a place of free food, entertainment and excitement. Also, it is a place to socialise and have fun with friends. More importantly, it is a home for seeking riches for the lower classes, who otherwise lack such opportunities in life.

What then are the attractions that keep the Paichais in the casinos? In the interviews, the majority of them said that the attraction was the idea of getting rich. Others mentioned the free food and entertainment. But deep down, the main motivation for their gambling was that they wanted to be in the action of gambling all the time. They were impulsive and stimulation seeking, starting from childhood years. Repeat observation and interviews indicated that Paichais sought to stay in the casinos as long as possible. Even when they were unable to wager any money, they loved sharing the fun and joy of gambling with other gamblers. They would stay at the back of the other patrons, watching and yelling at the cards “as if” they were gambling themselves. Thematic analysis of their responses in the interviews reveals that “sharing the fun and excitement,” “being always in the centre of action and stimulation,” “meeting friends and checking things out,” are the core categories of their purpose in being in the casinos. The casinos, in other words, are not simply a place for gambling for the Paichais: they are a source of fun and entertainment and the centre for life and stimulation for these individuals. One Paichai aptly summarised how important casino gambling has been to her life. “I have no place to go except here in the day. There is free food and drinks. Toilets are clean. I enjoy watching other people play. I have friends here. If the casino would not allow me to go in, I die today (Jenny, 52).” Thus, the title of “resident gamblers” best describes these gamblers.

The current finding also validates previous observations of Chinese casino gamblers. Lam (2005) writes: “While winning is a major motivational factor, Chinese

generally find table games more exciting and entertaining to play than slots. In addition to the fun and excitement of beating the house, the company of others (i.e. other gamblers on the table and the crowd surrounding the table) enhances the entertainment and excitement values of gambling (Lam, 2005, p.70).” Hence, Chinese people enjoy gathering around the table to gamble (Ohtsuka & Chan, 2010). Mahjong is a very good example of a Chinese popular game.

The psychology of Paichais might not be adequately explained by the classical research in addiction. Jacobs (1986) believes that addiction serves to regulate emotions. Individuals who are constantly in a high state of arousal might resort to addictive behaviour that alleviates their anxieties. For instance, a security broker who has to make fast decisions in security trading might become a heavy smoker, as cigarettes can help him to relax after a hectic day in the trading room. Likewise, according to his general theory of addiction, emotionally vulnerable problem gamblers or those who harbour a deep sense of inadequacy may employ gambling, rather unconsciously, as a means to alter their mood state. The process might be an attempt to escape from the painful reality of their existence and related problems. Some crucial elements in this process are that gambling presents the individual with an oasis and a solitary place in which to relax.

Hence, for depressed individuals, gambling appears to fill a void in their subjective world. On this issue, Wood and Griffiths (2007) have performed a qualitative study of 15 problem gamblers, aged between 18 to 63 years old, with a mean age of 39 years. The purpose of the study was to understand the role gambling played in the lives and development of the gamblers. The research employed a grounded theory approach. Critical analysis of the interview responses of the participants indicated that “gambling to escape” was the core category of their purpose in gambling. Such escape was achieved through mood modification involving fantasies, dissociation and or changes in arousal.

For most of the problem gamblers in the study, mood modification was their primary motivation.

However, Jacob's hypothesis does not address the psychology of Paichais as Jacob's proposal only applies to the emotionally vulnerable group of gamblers and their inadequacies as a precursor for problem gambling. Blaszczynski and Nower's (2002) pathways model can better explain their personality characteristics. In the Blaszczynski and Nower model, one type of gamblers, namely the antisocial-impulsive gamblers, best describes the core characteristics of Paichais. Moeller, Barratt, Dougherty, Schmitz and Swann (2001) define impulsiveness as a "predisposition toward rapid, unplanned reactions to internal or external stimuli with diminished regard to the negative consequences of these reactions to the impulsive individual or other" (p. 1,784). Behavioural manifestations of impulsiveness include inadequate self-discipline, lack of deliberation before the execution of a particular behaviour, and constant craving for excitement. And these characteristics best describe the personality of Paichais in the current study.

Recent empirical studies among electronic gambling machine players have provided support to the view that impulsiveness mediates, at least partially, the relationship between depression and problem gambling. Clarke (2006) sampled 159 university students enrolled in an introductory psychology class in New Zealand. The criterion for inclusion in the study was that the participants should have gambled once during the previous twelve months. Using the South Oaks Gambling Screen-Revised cut-off score of three or greater (Abbott & Volberg, 1996), Clarke reported that 16% of the sample could be considered as problem gamblers. The study also included measures of depression and impulsiveness in the sample. Results indicated that depression had a direct effect on problem gambling. However, such effect could be mediated by impulsiveness. In a recent replication study by Haw (2009), the effect of impulsiveness on mediating

depression is smaller though significant.

The current findings suggest that impulsiveness mediates the effects of depression among problem gamblers. Even though all the Paichais in the study had lost their careers, a lot of money and time in gambling, and most importantly, dignity and meaning in their life, none of them showed any signs of depression. Data from observation and interviews reveals that they demonstrate the majority, if not all, of the characteristics of impulsiveness; namely, lack of self-control and discipline, inadequacy of deliberation in decision making, excitement seeking, and recklessness and risk-taking in pursuit of goals (Blaszczynski, Steele, & McConaghy, 1997; Moellar, et al., 2001).

In addition to being impulsive, the Paichais showed a number of antisocial behaviours such as pathological lying, social irresponsibility and a lack of moral reasoning. This observation is consistent with the findings of Steel and Blaszczynski (2002), who investigated the relationship between impulsivity, personality disorders and pathological gambling. The participants in the study were eighty-two gamblers seeking treatment in a facility in Sydney. They were administered with the South Oaks Gambling Screen (Lesieur & Blume, 1987) and a battery of personality tests measuring depression, anxiety, impulsiveness and personality characteristics. The researchers reported that the participants showed elevated traits of impulsiveness and that such impulsiveness is “best understood as part of a general personality disorder structure characterised primarily by DSM-III R Axis II cluster B and cluster C personality disorders” (Steel & Blaszczynski, 2002, p. 108). In other words, these antisocial-impulsive gamblers also shared a number of characteristics of personality disorders such as borderline, histrionic and narcissistic personality disorders (Cluster B disorders) as well as dependent, avoidant and passive aggressive personality disorders (Cluster C disorders).

The observed behavioural patterns of Paichais might be consequences of inborn

biological dysfunction combined with a complex learning process through years of gambling in the casinos. Mischel and Shroda (1995) have proposed a theory that incorporates situational factors and emotional and personality factors into the development of a person's behavioural pattern. According to these researchers, personality and emotional factors linked together with contextual factors shape a person's behaviour. Personality variables such as traits, self-efficacy of performance of a specific behaviour and expectancy and the purpose of that behaviour all predispose a person to execute specific acts. Such predisposition towards behaviour interacts with environmental factors in the production of the behaviour. This chain of behaviour is reinforced if the behaviour generates positive outcomes. If the pattern repeats itself a number of times, this behavioural pattern then becomes a stable trait of the person in that situation.

Incorporating this theory into the gambling behaviour of Paichais, their behaviour could thus be interpreted as a function of their biological, emotional and psychological factors as well as the context factors in the casinos. Once they are in the casino, their behaviour is maintained by the stimuli in the environment: the noises, the cards, the people, the money, the fun and the joy. Often the vicarious reinforcement involved takes the form of seeing others hitting the jackpots in the casinos. These stimuli are linked to fun and joyful emotions as well as subsequent risky behaviour. These behavioural links are reinforced and strengthened on numerous conditions and later become an integral part of their personality. The emotional highs are quickly subdued as they leave the gambling tables in the casinos. Thus, in order to maintain the elevated mood and the aroused state, Paichais continuously stay in the gambling environment. Their antisocial behaviour can thus be viewed as the consequence of learning processes.

Further, this gambling environment provides a perfect shield, whereby the Paichais can dissociate themselves from life outside. In the casinos, they take on a

different identity. For instance, Ah Ming, the Paichai from Hong Kong, had left his family and had been stranded in the casino for several years. In this context, he could now dissociate himself from all the anxieties and regrets of life and focus solely on the games. The whole process is behaviourally functional: casino gambling gave him a place to live and work for a dream. Consequently, he became a resident gambler in the casinos. In the casino environment, the Pachais' purposes are simple: obtaining as much money as possible, investing that money into gambling and staying in the casino as long as possible. And the casino is full of stimulation and excitement, which these gamblers are constantly seeking.

From a psychodynamic view, one of the defence mechanism Paichais employ is dissociation from the outside world. In a pioneering work with addicted and social gamblers, Brown (2002) proposes that addicted gamblers are more likely to report themselves as occasionally or always in a trance during gambling. They are more likely than social gamblers to experience themselves as outside of themselves, assuming a different identity and suffering a memory blackout. This dissociation, according to Brown, might be due to the high level of arousal which leads to the narrowing of attention and the subsequent escape from reality and a cognitive distortion of the subjective world.

Brown's proposal can help understand the behaviour of Paichais in the current study. The noises, the vibrant music and the sound and the joy of winning in the casinos have provided Paichais with a source of increased arousal and excitement. The emotional highs are obtained either by directly participating in gambling or by simply staying in the environment and observing others gambling. Most of the Paichais reported a feeling of a different identity once they were in the casino. Their attention would focus on the cards and the patterns of card outcomes. In their subjective world, another "me" was living in the casino, a person devoid of all social identities. In psychodynamic terms, such

dissociation would enable them to carry out an identity totally different from the “typical or representative” personality of the Chinese in Macau, one who can be described as traditional, hardworking, family-bound, and law-abiding.

That might be the reason why the Paichais in this study always *wanted* to be in the casinos. All Paichais in the present investigation were in the casinos every day of the year. In the casinos, they were taking on new roles and a different identity. They enjoyed wandering around the gaming tables, paying full attention to the outcome of the cards. They liked to talk with other Paichais, discussing about issues in the casinos. It was the only place where they could still achieve their dream of recouping their losses and enjoy the company and obtain possible validation from fellow dreamers; i.e. other Paichais.

From a sociological perspective, the Paichais in the present study had, rather unconsciously, made the casinos their homes. They treated other Paichais as cousins in a family. They enjoyed each others’ company around the gaming tables and the conversations which centred on gambling only – the patterns of card outcomes, the types of customers around the tables, the lucky tables or dealers of the day and their own predictions of the card outcomes. They spent hours discussing the flow of the cards and the events and happenings in the casino of the day. Such information sharing and mutual support were significant elements of their social bonds. In addition to information sharing, other benefits of being in this group include money lending, food sharing and mutual spiritual support for one another. In brief, Paichais form a closely connected social group, which support each other emotionally and financially in the crowded casinos.

In this social group of Paichais, there are a number of norms. Firstly, Paichais from various clans occupy different sections in the casino. For example, Wally (a 52 year old Paichai) claimed one corner of the second floor of the New Lisboa Casino as his sphere of power. He went to check his “business” every day. No other clan could come into his

sphere. In his sphere of interest, he had exclusive rights in dealing with loans to suitable customers.

Secondly, when one Paichai was giving advice to or simply following a gambler, other Paichais could not approach that gambler. The gamblers were not obligated to tip the Paichais. If a “big-spender” tipped a Paichai a few hundred dollars, other Paichais from the same family or clan would come to greet the “big spender” and say good things to him in order to get more tips.

Over extensive periods of observation, Paichais’ behaviour followed an individual repetitive pattern. Some would stand at the gamblers’ backs, yelling and talking to one another. Others would hop from one table to another, holding a small number of casino chips in their hands, spending the majority of their time seeking opportunities to obtain money for gambling. They only wagered on small bets, sometimes less than MOP20 as they did not have much money. They liked to gather around packed gaming tables and formed a temporary coalition with other gamblers. By sharing information and intuition, they aimed at beating the casino management.

Rosecrance (1986) believes that the sustaining mechanism of gambling in a casino is the social rewards obtained through networking among the gamblers. In his study of regular casino gamblers, he argues that the major motivation for gambling is not monetary gain; the greatest attraction is the social network and the emotional support the gamblers share. However, the current study found that Paichais’ main motivation for gambling was monetary gain. They wanted to recoup their loss and achieve financial success through gambling. Thus, they did not gamble for obtaining social rewards or social networking; they gambled with social networking. In this perspective, the social rewards such as social approval, friendships and validation from fellow gamblers were only means to help them in their gambling.

The present study also reveals that Paichais have a peculiar cognitive pattern and perception of the world. Their cognitive pattern is preoccupied with money and gambling. With a prolonged stay in the casino, the Paichais' interests and concerns are narrowed to gambling only. They are not concerned with anything else except gambling. Their sole motivation in life is to obtain money, studying the patterns of the card outcomes in order to win and if they win, they re-invest the money into gambling. Using the classical theory of Maslow's hierarchy of needs model (1954), Paichais are functioning on the lowest layer of needs; i.e. physiological needs. They have no other means of survival except by gambling. All else is meaningless. This model can well explain their behavioural patterns such as begging people for money and stealing or lying for the purpose of obtaining more money for gambling. Love and belongingness, self-esteem and self-actualisation are higher up in the top layers of motivation. These issues carry no meaning for the Paichais.

Paichais' moral reasoning corresponds to the first stage of Kohlberg's moral development (Kohlberg, 1981). Kohlberg's theory rests on the assumption that moral development depends on cognitive development. Young children under five usually operate on the first stage of moral development. For them, authority and the fear of punishment are the sole sources of moral reasoning. They tend to ask themselves this question: "Will I get punished? Or do I have to do it?" They are egocentric and base all moral judgement on egocentric concerns. Thus, Paichais do not have any insight into their own problems. They like to hold others responsible for their problems. And they enjoy manipulating others for personal gains.

There were a number of cognitive patterns in the Paichais' subjective world. When the Pachais in this study were around the baccarat tables, they were fully focused on the patterns or the "ways" of the card outcomes. They believed that discovering such patterns could enhance their odds of winning. One interesting characteristic was that the

Paichais in the current study were extremely optimistic in their estimation of their chances of winning. They tended to verbalize loudly to let everyone know their predictions. Many a time, they told others that they knew the outcomes before they came out. Their optimism might reflect what Lench and Ditto (2008) term as optimistic bias. This concept argues that people, especially gamblers, generally predict positive events will occur in their lives while negative events will not even though the probabilities for both events are the same. Automatic optimism is more pronounced in tasks that require quick decisions

Optimistic bias can well explain why Paichais were more likely to trust their own predictions than the objective probability of future events. In many circumstances, they attributed their winning to their abilities while they attributed their losses to the misdeeds or wrong doings of others. They employed a number of superstitious beliefs such as wearing red underwear to gamble or entering the casino via a specific entrance in order to enhance their chances of winning.

This pattern of explaining one's life events may reflect an attribution error, where people tend to attribute positive events to ability and negative events to fate (Weiner, 1985). However, Paichais' use of superstitious beliefs might mean more than an attribution error as research into superstitious beliefs associated with gambling has provided insight into the role of irrational thinking in gambling. In a recent study into ethnic minorities and gambling in Australia, Ohtsuka and Ohtsuka (2010) found that Vietnamese gamblers were likely to interpret wins and losses in terms of Quả báo (repayment) or Yin-Yang in life. These concepts are rooted in Asian philosophy and they provide gamblers with an illusion of control over the unpredictable events in their lives. The authors believe that superstitious beliefs were functional for the gamblers as they provided them with a secondary control in a situation in which little primary control is possible. Further, Ohtsuka and Chan (2010), in their study of mahjong players in Macau, argue that

superstitious beliefs are an integral part of the Chinese culture. Superstitious beliefs such as going to the bathroom after a series of losses or tapping on others' shoulders to damage their good luck are rational means, which gamblers employ to give meaning to their gambling. Superstitious beliefs can thus help Paichais ease their cognitive regret for their decision making and validate their gambling.

This optimistic outlook on gambling is functional for Paichais as it has provided an existential meaning for their lives. Outside of casino gambling, the Paichais of the current study had little career skills and development. Further, the majority of them maintained little contact with and attachment to their families. In actual terms, they had no purpose or identity outside of casino gambling. In the process of gambling, or simply observing others in action, the Paichais could at least cherish the hope that one day they would hit the jackpot and win big. Winning in this context is not understood simply in monetary terms; it also involves the winning of self-esteem and possibly the dignity of being a person. It is this hope, no matter how distant it seems to be, that has sustained their continued presence in the casino. In the psychodynamic tradition, Paichais can be understood as constantly engaged in a self-made fantasy, one that is full of wishful thinking that they might re-coup their losses or even become a millionaire. This fantasy might well be a demonstration of childhood omnipotence, the belief by children that they can control everything in their lives (Rosenthal, 1987).

The point that gambling presents a fantasy or a hope for gamblers has been pioneered by Edward Devereux (1968). In a sociological perspective, Devereux employs a functional approach to explain why individuals from the lower classes gamble more than individuals from the upper class. The reason is that gambling offers hope for the working class who, otherwise, have little chance to get rich and improve their lives. Basically, gambling, for many, is a protest against inherent economic inequalities in society.

Devereux's claims have been supported by research into social class and gambling (e.g., Aasved, 2003; Wardle et al., 2007). Ginakis and Ohtsuka (2005) argue that personal hope can be of two types: short-term hope and long term hope. Gambling provides at least a short-term hope for people who otherwise have little hope in their life. In the case of Paichais, their continued gambling might be an outcome of an unconscious hope of winning back all the losses in their life. Every day is a new round of hope for the penniless and hopeless Paichai. In the study, most Paichais have repeatedly told the researcher how someone with \$100 had won \$200, 0000 by winning 15 games of baccarat in a row. This story, while it seems impossible, is, nevertheless, the last hope of the Paichais and this motivates them in their gambling and possibly their lives.

Hope and will are most potent for individuals who have lost everything in life. This assertion has been put forward by Graybar and Varble (2002) in their comparison study between the pathological warrior and the pathological gambler. A pathological warrior, by definition, is one who consistently wages war against others. Their purpose may be of a nationalistic origin or they may be motivated by personal gain. A good example of a pathological warrior would be a member of one of the terrorist groups in the Middle-East which have operated covert attacks against the United States. These groups often work on a small scale and on a tight budget. Members of the group might sacrifice their lives on the account of nationalism. Their continued stay in the battle might not be solely for the victory over the foreign country that has invaded their homes as they would all lose their lives in fighting one day. Their main motivation is to continue to fight in the war as long as possible, which would imply continuously fighting and killing their enemies. The families of these fighters might have died during the war and they might have nothing left except the desire to obtain revenge by killing their enemies.

Pathological warriors usually come from an impoverished background. They

are often orphans or loners with little educational or career development. Usually they harbour an intensive hatred towards some established authorities. Hence, it is their mission to fulfil an ulterior motive; this may mean the overthrow of a foreign power as in the case of the Chechen rebel fighters. The pathological warrior sees the process of war as an event larger than his/her life.

Incorporating this into the life of Paichais, we can understand why these resident casino gamblers stay persistently or even faithfully around the gaming tables in the casino. The main motivation of their gambling is staying in the games as long as possible. They do this even though they know, albeit unconsciously, that they will end up losing everything, including their money and the valuable time of their lives in the process. Like the pathological warrior, they will fight till they die.

One might ask why? Why would people continue to lose and still stay on the same course of action? What is the purpose of their gambling? The answer for these questions can be found in the lives of the pathological warriors. These individuals have no other purpose in life except killing their enemies. They may have lost their families, their homes and work opportunities during the war. Thus, revenge is their sole meaning in life. By the same token, the pathological gambler may have lost everything in the process of gambling. For example, the Paichais from Hong Kong have left behind their homes, career and practically everything for gambling in Macau. In brief, their lives, like the warrior, carry little meaning or significance at all besides gambling. Thus, they continue to stay and gamble in the casino for the excitement and stimulation of the games. Deep down, they live on the slimmest hope that they might get back what casino gambling has taken from them. For them chasing one's losses does not just mean chasing one's loss during the last visit to the casino: chasing entails the recouping of all their losses in life: families, career, homes, relationships and, most important of all, dignity and purpose in life.

As one Paichai from Hong Kong once remarked: “I have no place to go except the casino. One day, I will get back what is due to me” (Ming, male, aged 47). Ming had been a resident gambler in the casino since 2005. He lost contact with his family in Hong Kong. He now spent most of his days in the casino. At night, he slept in the parks or in empty commercial buildings around the casinos.

In their subjective world, Paichais hold a paradoxical love-hate relationship with the casinos. Through years of gambling, they have lost their money, their career development, and possibly significant relationships with family members. Most important of all, they have lost the most valuable things in life: their dignity and the valuable time of their lives. Thus, they ventilate their anger and hatred towards the casino by cheering and supporting others to win. By forming a transient coalition with other gamblers, they, rather unconsciously, believe that they are taking revenge on the casino management. This explains why they are so happy and joyful when fellow gamblers win big on the casino.

Nonetheless, though they harbour intensive hatred towards the casinos as they have lost everything there, they now have to visit the casino daily as it is a place where they can make some money or at least take a few free sandwiches. They have no other means to make a living. The casino presents the slimmest hope that they might have to recoup their losses and win back their money, and possibly their lives back. That is why pathological gamblers are in the casinos always – they are truly the “resident” gamblers in the casinos.

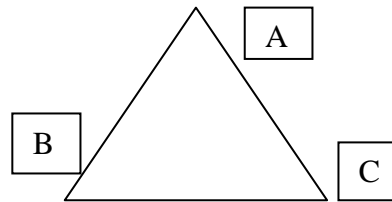
The Theoretical Perspective

The present investigation proposes a triangular theory to understand the clinical and social construction of Paichais, a special group of pathological gamblers in Macau.

A. Games

B. People

C. Culture/environment



This model proposes that the Paichai, as a cultural icon, is a product of three factors: game structure, the needs and characteristics of the gamblers in Macau and the particular cultural and social characteristics of Macau.

The first factor is the game structure. Paichais only gather around baccarat tables. While these games are total chance games, gamblers tend to believe that there are patterns to the outcomes of the cards. One might ask why gamblers are inclined to study the previous outcomes of the cards. The answer is simple: the nature and the speed of the game present the gamblers with a cognitive dilemma and a source of discomfort. Simply by providing predictions and advice to other gamblers around the baccarat table, Paichais, with their predictions, fill in the cognitive gaps and compensate for the irrationality the games present. Thus, Paichais are functional to other gamblers from a psychological perspective.

The second factor in the triangular theory is the attitude of Chinese towards the structure of games. Traditional Chinese games like Pau Kau and mahjong are table games. Chinese people love to gather around a crowded and boisterous corner to gamble (Lam, 2005). When compared to western culture that stresses individualistic concerns, independence, personal endeavor and personal achievement, Chinese culture places more

emphasis on family and community, interdependence and collective efforts to obtain goals and achievement. Electronic gaming machines (EGMs), with their solitary and individualistic features, are never the favorite of Chinese gamblers (Lam, 2005; Lam, 2007).

Thirdly, there are elements in Chinese culture and society that have given Paichais a functional value in the casinos. In Chinese culture, it is important to save “face,” or prestige in front of others. In traditional Chinese society, rich people and those with authority enjoy to be surrounded by an entourage of followers, who serve the rich as personal servants. Rich people love praise and affirmation from followers. For those who gamble, a cheering crowd is a source of social validation for their gambling. Thus, Paichais, in many ways, act as servants or supporters for these individuals in the casino.

Further, the particular social and cultural environment in Macau might have helped foster the development of Paichais as a specific group in the casinos of Macau. Macau was a colony of Portugal for over four hundred years. It was only returned to Chinese sovereignty in 1999. Centuries of foreign rule has made Macau a community of “borrowed time and borrowed space” (Chan & Ohtsuka, 2009a). The majority of the residents of Macau are from the Mainland. They came there to work and for a better livelihood. The majority of them came from Guangdong, which is just over the border. Some might have come for work only. Others might have arrived for political reasons. Even though they might be there for various reasons, however, they all share one thing in common – they never regard Macau as their home. A lot of local residents have immigrated to foreign countries prior to the return to Chinese communist sovereignty in 1999. Many of them went to live in Portugal as many Macau residents hold Portuguese passports. For a lot of local residents, Macau is a “borrowed place,” a place they only stay in because their work and families are here. Residents in Macau generally are not

interested in local political and social issues. They are only concerned with issues or loved ones in their own lives, their families and work. Paichais represent the typical type of self-centered and egocentric people, who have little social responsibility and little or no respect for a lawful career. They only care about their own lives and their gambling.

The present model supports the triangular model of problem gambling of Wong (2010). In an analysis of new immigrants in New Zealand, Wong found that three factors contributed to problem gamblers, namely: time, money and access. The new Chinese immigrants to New Zealand usually bring along a lump sum of money. After they arrive in New Zealand, some might be unemployed for some time. These individuals might turn to gambling as there is an easy access to casino gambling in Auckland. This model can be applicable to an understanding of Paichais. Paichais have almost unlimited time and easy access to the casinos in Macau. The last factor is money. With no formal income, Paichais have to resort to illegal means or lying in order to finance their gambling. And with every penny they receive, there is a good possibility that they will invest almost all of it on the gambling tables (as they do not have to pay for food or a room). Their problems might not be amenable to treatment as long as they continue to stay in the casinos as “resident” gamblers.

Recently, Chan and Ohtsuka (2010b) performed a qualitative study of the characterisation of male gamblers in popular movies in Hong Kong. In-depth analysis of the characters portrayed in these movies indicates a shift of emphasis from the moral integrity in the 1950's to the individual pursuit of personal gains in the 2000's as the dominant theme of the movies and the core behavioural patterns of the characters. If popular movies represent the collective fantasies and unconsciousness of a community, recent Hong Kong movies with gambling themes may reveal the dreams and motivation of life for the majority of people of Hong Kong – it is “a dream that centres on the utilitarian

and individualistic desire for personal gains in material and financial wealth. It is a dream of all for the winner albeit with a hidden cost of loss of social justice and integrity.” And it is this dream that keeps Paichais going, and perhaps, living and gambling in the casinos every day.

To these Paichais, the casino is their work place. Their job is to “grab” or “scratch” money. There is no promotion or paid holidays. Also absent in this job are the uniforms, the working desks and the paperwork. But the meals are complimentary of the casino: they come with job. The biggest pay is the hope it brings – it is the hope of recouping one’s loss and the attainment of personal wealth. This hope, though distant, is the biggest paycheck they are looking for.

The implications of the present study

The present investigation carries a number of theoretical implications for the understanding of pathological gamblers and practical considerations regarding treatment of and policies towards pathological gambling.

The study has clearly demonstrated the pathway development of eleven pathological gamblers, known as Paichais, who nicely fit into the antisocial-impulsivist group. These gamblers demonstrate the behavioural patterns of antisocial-impulsivist gamblers, which might be a consequence of a biological dysfunction, either neurological or neurochemical, according to Blaszczynski and Nower’s (2002) model. These gamblers have a propensity to be clinically impulsive. They have a low tolerance for boredom and, since childhood, they have enjoyed sensation rewarding activities and risky behaviour. They reported a history of socially irresponsible behaviour such as alcoholism and criminal acts. Pathological gambling is only one of the problems they exhibit in their lives. They are not motivated to seek treatment as they have little insight into their problems.

The four non- Paichais in the study can be considered as behaviourally conditioned problem gamblers. They reported having stable employment and families to support. They gamble excessively due to poor decision strategies and bad judgment. They are not pathologically disturbed; nor do they demonstrate any behavioural problems in their adolescent years such as substance abuse, alcoholism or a family history of antisocial behaviour prior to the acquisition of their gambling habit. They started to gamble more excessively as a consequence of abrupt changes in their work or family. They have remorseful feelings towards the pain they cause to others. Thus, these gamblers can benefit from psychological treatment.

The present study highlights the argument that time (in terms of total hours spent in the casino) and the access to gambling are important factors for the development of pathological gambling. In Macau, the development of responsible gambling and harm minimisation strategies are in their infancy. The best method to help these gamblers would be a mandatory exclusion policy (Blaszczynski, 2001; Delfabboro, 2008). With this policy, known pathological gamblers could be barred from entering the casinos. By limiting the time they spend in the casinos, the Paichais may be able to reduce their involvement of gambling. However, such measures would need the support of their families and law enforcement government agencies.

As the Paichais are not motivated to seek treatment, traditional treatment such as cognitive-behavioural therapy may not be useful for helping this type of clientele. Instead, an innovative treatment should include pharmacological intervention and compulsory counselling and guidance.

A pathway development model of the Paichais in Macau

In the clinical and social construction of pathological gamblers in Macau, the current study proposes a pathway development of the Paichais in Macau. This model is given in Figure 1 in P.172. The Paichai's development pathway of problem gambling has three distinct stages. Circle A represents their development in childhood and adolescent. Circle B depicts significant aspects in their development of problem gambling in adulthood. Circle C describes their current lifestyle and gambling behaviour.

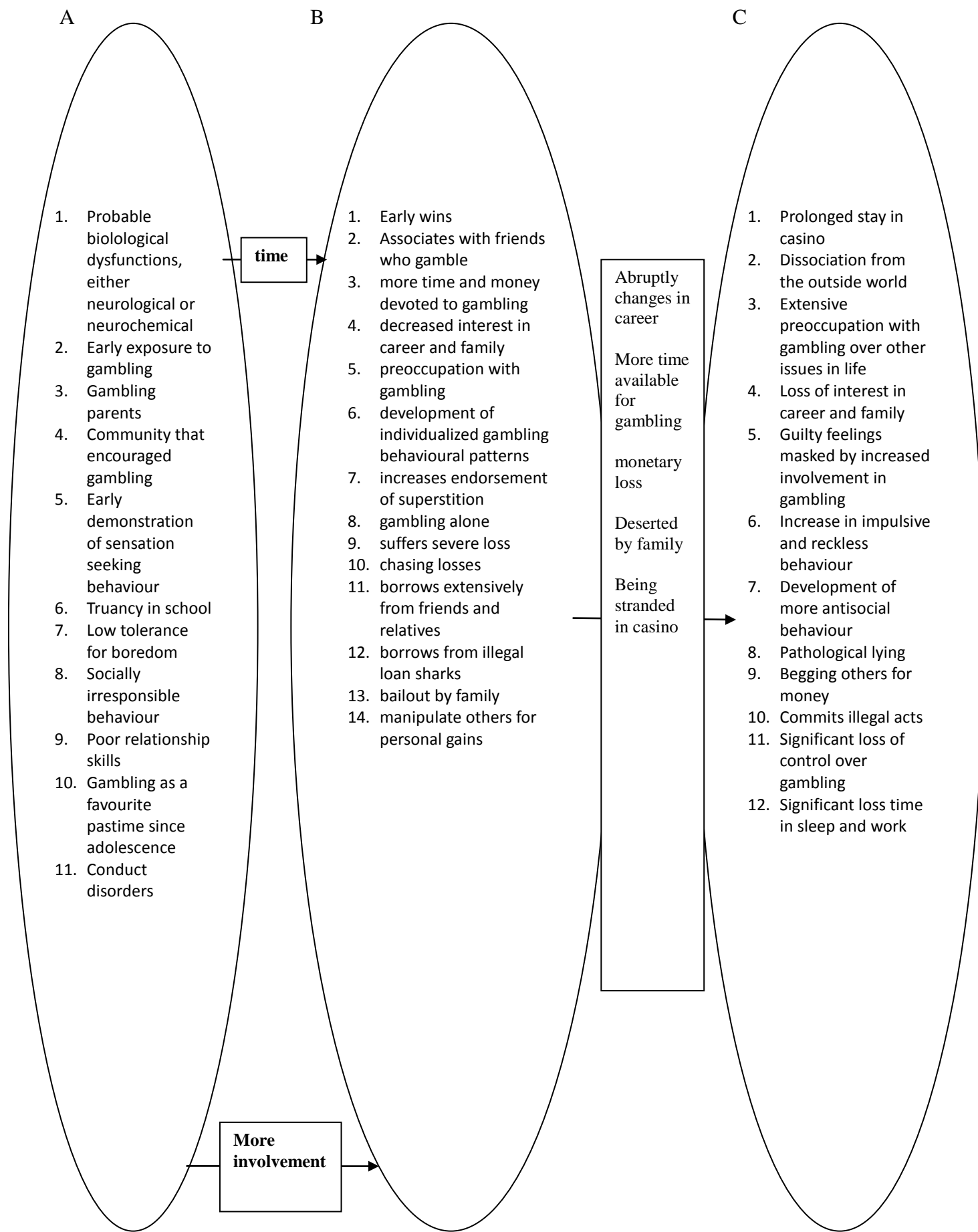
The Paichais might have biological dysfunctions, either neurological or neurochemical. This is evident in their description of their sensation seeking behaviour beginning in childhood years. Very often, they recalled a history of low tolerance for boredom and frustration in childhood. Most reported incidents of breaking rules in school and in their families. They had been socially irresponsible since their adolescent years. Truancy was often reported during their school years. They began gambling at an early stage. Very often, they came from a family that condoned or even encouraged gambling. Gambling was their favourite pastime. When compared to non-Paichais, these antisocial-impulsivist gamblers demonstrated more conduct problems in childhood and adolescent years (Circle A).

These gamblers reported having an early win in their gambling development. And with more time and involvement in gambling, they proceeded to the second stage (Circle B). In this stage, the gamblers spent more time and money on gambling. Consequently, their interest in and commitment to their families were drastically reduced. Conflicts with significant others were often reported at this stage. They began to lose interest in their work. Some might even skip work in order to gamble in the casinos. Complaints of physical and emotional abuse of their spouses were frequent. As the gamblers'

preoccupation with gambling increased, they started to go to the casinos alone and developed an individualised gambling pattern. Their gambling patterns were filled with irrational beliefs and superstitious behaviour. They might report periods of binge gambling with significant loss of money. Subsequent chasing of losses created more conflicts with their family and in their workplace. The gamblers then started to borrow heavily from friends and relatives. Some might resort to borrowing from loan sharks, who charged high interest. They appeared to have little remorse nor insight into their problems at this stage.

There are a number of crucial elements that predispose the gamblers at stage two to go to stage three (Circle C). These push factors included abrupt changes in the person's career or family resulting in more time and money available for gambling, being deserted by family and accumulation of huge debts. All the Paichais in the current study were in stage three at the time of data collection. The main differences between the Paichais and non-Paichais were the intensity of their preoccupation in gambling and their commitment to a lawful work and lifestyle. Paichais were found to be antisocial and lack a basic commitment to lawful work and values. They lacked moral insight into their problems. Their personality characteristics might be the consequences of biological dysfunction and complex learning processes. Their prolonged stay in the casinos, which dissociated them from the outside world, might have attenuated their socially irresponsible behaviour. These gamblers best illustrate the characteristics of the antisocial-impulsivist gamblers in the Blaszczynski and Nower (2002) model.

Figure 1: Pathway Development of Paichais



It is reasonable to believe that the non-Paichais in the current study might develop more problems with gambling if they have abrupt changes to their work or family. This might include unemployment or a divorce in the family. This change might give the non-Paichais additional time or money for gambling. With more time for gambling, non-Paichais might go to the casino more often. Then, with a prolonged stay in the casino, they might have a good possibility of becoming Paichais. This argument proposes that behaviourally conditioned gamblers might become antisocial-impulsive gamblers if their gambling intensifies. Future studies should look into this perspective.

The present study supports the claims of Blaszczynski and Nower's (2002) model that there are distinctive types of problem gamblers. In this investigation, Paichais' pathway development is best described as antisocial-impulsivist while the non-Paichais' pathway development correspond more to the model of behaviourally conditioned gamblers. These gamblers were not psychologically disturbed prior to the initiation of their gambling habits. They started to gamble excessively due to poor decisions and judgment. Their emotional problems were the consequences of their gambling. And they may be more positive towards professional help and treatment.

Also, the current investigation discovers that the pathway development of the antisocial-impulsivist gamblers follows a linear model: all Paichais started as social gamblers. They learned to gamble during childhood or adolescent years. Then as adults, they gambled more excessively and their gambling involvement proceeded along the linear model. When they reached stage three, their antisocial and impulsive behaviour was well ingrained into their daily behavioural patterns. At this level, their worldview was preoccupied with gambling issues. They were dissociated from their families. With no career and no means of survival, they became "resident gamblers" or Paichais in the

casinos. At this stage, they are resistant to change or help from professionals.

In the study, the two Paichais who have been stranded in the casinos of Macau best illustrate this linear model. Ha (a 32 year old female Paichai originally from Mainland China) and Kong (a 36 year old male Paichai from Mainland China) reported a history of conduct disorders in childhood. They gambled socially during adolescent years. Their lives took a drastic turn when they started to gamble excessively a few years ago. They became more entrenched in gambling, spending more time in the casinos of Macau and skipped work in Mainland China. After a few years of being “resident” gamblers in the casinos, they lost their attachment to families. They can be best described as cunning, manipulative and antisocial. Both Ha and Kong would steal and lie for money. They would do almost everything to obtain money to finance their gambling.

It is interesting to note that there are no emotionally vulnerable gamblers among the fifteen participants.

Limitations of the study

It was very difficult to recruit participants for the present study. Pathological gamblers in Macau are not very receptive to research invitation. The majority of the participants were recruited by the snowballing technique. The sample is thus not a random sample from the pool of suitable participants. Secondly, the sample of non-Paichais is small ($N=4$). This is an insufficient sample size to offer an accurate analysis of comparable data. Under normal circumstances, a larger sample would be more appropriate. However, the recruitment of active gamblers is difficult, especially those in the casinos of Macau. In particular, there are a lot of Chinese mafia groups operating illegal syndicates in the casinos. Most of them benefit from pathological gambling as they give out high interest loans to the gamblers. It is rather dangerous to interview gamblers

in this environment. These mafia groups are very suspicious of outsiders, especially academics. In the course of data collection, many a time the researcher could not use traditional data collection methods such as tape-recording or formal note-taking in front of the participants. Almost all notes were written in the toilet stalls. Hence the recruitment and data collection process proved more difficult than planned.

Secondly, the interviews and observations were performed within the noisy casinos, and some of the participants often refused to talk extensively while they were gambling. Thus, the interviews had to be segmented into shorter interviews. In collecting the data, the researcher in this study has endeavoured to collect the data by the most reliable means.

Recommendations for future studies

The current study has contributed to the understanding of pathological gambling in Macau. Most of the research projects performed in Hong Kong and Macau have only focused on the prevalence rates and demographic data of the participants (e.g., The Hong Kong Polytechnic University, 2002; The University of Hong Kong, 2005). This research project is the only project that has investigated the psychology of Paichais, a distinct group in the casinos of Macau. This study provides valuable information on the development of pathological gambling in Macau. Future studies should look into the following perspectives:

- a. A study on the subjective world of the Paichais can further enhance our understanding of the cognitive styles of Paichais. This study may investigate the cognitive schema of the Paichais during their gambling. The key issues of the research will be their patterns of betting and their subjective views on such patterns. An in-vivo research approach will be employed as the researcher may need to stay and make observations and interviews in the casino for an extended

period of time. The goal of this study is to achieve a theoretical explanation on Paichais' use of patterns in their subjective analysis of their gambling.

- b. Another area of future research will be the development of a treatment package for Paichais. In the recent Cochrane review, Anderson (2010) reports that cognitive behavioral therapy is an effective treatment for pathological gamblers. Thus, future studies may need to include cognitive-behavioural therapy into the treatment package for Paichais.

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Appendix A

INFORMATION

TO PARTICIPANT Form



**VICTORIA
UNIVERSITY**

**A NEW
SCHOOL OF
THOUGHT**

You are invited to participate in a research project entitled: “The clinical and social construction of pathological gamblers in Macau. “ My name is Chi Chuen Chan, a PhD candidate at Victoria University, Melbourne, Australia. Currently, I am conducting a research project on Asian gambling in Macau as part of my doctoral program. This research project is supervised by Dr Keis Ohtsuka, Senior Lecturer, School of Psychology, Victoria University.

Project explanation

People often believe naively that a certain culture has more affinity with financial risk taking activities such as gambling. Although social and family influences may play a major role in the introduction to gambling, other psychological factors and beliefs are also implicated to predict who is likely to participate in gambling on regular basis. In this research project, I am interested to interview people who go to the casino on a regular basis to learn about your views regarding gambling and related issues. The interview will take approximately 45 minutes to 50 minutes at the longest. I might need to interview you a few times and observe you when you gamble in the casino.

Of course, your participation remains strictly voluntary and you can discontinue the interview at any time if you no longer wish to participate without any penalty. The participants remain anonymous (names used in the report will be pseudonyms). Only small sections of interview data (quotations) will be included in my PhD thesis or publications in academic journals.

What will happen during interviews?

During the interview, I will ask your views on many issues related to gambling, your family and friends and ask you to fill in questionnaires.

What will I gain from participating?

Gambling could be a sensitive topic for some. However, the information you share with me is very useful for researchers, psychologists, policy makers, and the general public to improve the wellbeing of residents in Macau/Hong Kong. As a token of appreciation of your time and effort to participate in this study, supermarket vouchers of approximately HKD 145 (equivalent to AUD 20) will be provided for participants.

How will the information I give be used?

Anonymously without identifying who you are excepting general demographic information, such as gender, age, occupation. Most likely your views are discussed with other participants' views and only short segments of your interview or summary of your input

will be included in a PhD thesis.

What are the potential risks of participating in this project?

Gambling is a sensitive topic for some. Talking about your own past experience regarding gambling may make you feel uncomfortable or upset. If you do not wish to share information, you are not obligated to disclose it during the interview. You may withdraw from the study or discontinue an interview at any time.

You may be worried that people may criticise or judge you if you reveal your gambling habits or individual views about gambling. Interview records when included in a thesis will only use pseudonym without any identifiable information – only general demographic information such as age, gender, occupation, will be included in the report

Who is conducting the study?

Mr. Chi-Chuen Chan will be responsible for conducting this study.

Who should I contact if I have questions, concerns, or complaints?

Chi-Chuen Chan, PhD candidate, School of Psychology, Victoria University, is responsible for recruiting participants, conducting interviews and analysing the collected data. He can be reached at chuenchan@yahoo.com or 852-9708-2033.

Any queries about your participation in this project may be directed to Dr Keis Ohtsuka,
School of Psychology, Faculty of Arts, Education and Human Development, Victoria
University, PO Box 14428 Melbourne, Vic 8001, Australia. Telephone +61 3 9919 5098
or Email: Keis.Ohtsuka@vu.edu.au

If you have any queries or complaints about the way you have been treated, you may
contact the Secretary, Victoria University Human Research Ethics Committee, Victoria
University, PO Box 14428, Melbourne, VIC, 8001, Australia. Telephone: +61 3 9919
4781.

Appendix B

Chinese translation of the Information to the Participant Form

給參加者的訊息

我們誠邀你參加此計劃 華人賭場賭徒的生活及心態

此計劃由 陳智川先生 負責，此計劃的主任是 Dr. Keis Ohtsuka。Dr. Keis Ohtsuka 澳洲維多利亞大學心理學系的高級講師，而陳先生是該計劃的研究員。

計劃大綱

此計劃目的為研究賭徒的生活及心態，以及他們的成長及社交狀況。

人們常常感覺某些文化會比較喜歡賭博，雖然家庭因素及主要形成賭博的原因，但其他心理因素亦會令人們賭博，在此計劃中，我們旨在觀察那些常常光顧賭場的人，每次面談只涉及十至五十分鐘。

當然，你參加此計劃是自願的，同時你亦隨時可離開計劃，我們保護你的身份，只有少量的資料會在我們的研究著作中引用。

你要做甚麼？

你需要真誠地解答一些個人的問題。請你真誠地回答關於你的賭博行為，及你的家庭和朋友的關係。

你可從這計劃得到什麼？

賭博是個敏感課題，你給予我們的資料對我們的研究有裨益，並對社會有貢獻。你可認識賭徒的心態，並且，你可得到二十澳圓，這些錢會以超市支付。

我透露的資料會怎樣處理？

你的資料只會用於研究中。我們會將你的資料保密，你的資料會被小心處理，並會被引用在我們的研究計劃中。

此研究有沒有危險？

此研究沒有甚麼危險。賭博是一項敏感課題，當你談及你的賭博經歷中，你會感覺失落及不舒服。如果你不願意分享這些資料，你可隨時離開此研究，沒有人能取到你的個人資料。

此研究的負責人是誰？

陳智川先生 將會負責此研究，他會訪問每一位受試者。

這計劃會由維多利亞的道德委員會監察。

如有任何對本研究的問題，可直接聯絡主要研究員。

陳智川先生會負責此計劃，他會訪問每一位受試者，
他的電郵地址是 chuenchan@yahoo.com 或 852-9708-2033

如有其他疑問，你可聯絡 Dr. Keis Ohtsuka
維多利亞大學，郵箱 14228 號，澳洲墨爾本電話 (03) 99194781 或
電郵地址: keis.ohtsuka@vu.edu.au

如有任何投訴亦可寄予 維多利亞大學研究道德小組
地址: 郵箱 14228 號，澳洲墨爾本電話 (03) 99194781



Participant Consent Form

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into a study:

The clinical and social construction of pathological gamblers in Macau

The purpose of this study is to understand the Chinese pathological gamblers in Macau. It intends to construct a profile of the personality and lifestyles of gamblers. The study aims to advance our understanding of these individuals.

CERTIFICATION BY SUBJECT

I, (NAME).....of Macau/Hong Kong

certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in the study:

The clinical and social construction of pathological gamblers in Macau being conducted at Victoria University by: Mr. Chi Chuen Chan

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Mr. Chi Chuen Chan

and that I freely consent to participation involving the use on me of these procedures:

- Interviews and observation

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardize me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Witness other than the researcher:

Date:

Any queries about your participation in this project may be directed to the researcher Dr. Keis Osthuka at (03) 99195098. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4781

Appendix D

Chinese version of the Participant Consent Form

參加者的同意書

致參加者:

我們誠邀你參加此研究計劃 華人賭場賭徒的生活及心態

此研究計劃目的為認識澳門的華人賭徒，我們希望藉此研究來認識賭徒的生活及心理情況。

參加者證明

我 _____ 證明自己已十八歲並且自願參加此計劃 華人賭徒的生活及心態，此計劃由澳洲維多利亞大學研究員 陳智川先生 負責。

我明白此計劃的目的及危險性，陳智川先生 已將此計劃的程序分析清楚。
而且我願意參加此程序:

- 面談及觀察法

我亦明白我有權問有關此研究的問題，並隨時離開此計劃。

我證實以上會為事實。

⊗ _____ (參加者)

⊗ _____ (見證人)

任何關於此研究的問題，可致電 Dr. Keis Ohsuka (03) 99195098

如有任何投訴亦可寄予 維多利亞大學研究道德小組

地址: 郵箱 14228 號，澳洲墨爾本 (03) 99194781

Appendix E

Interview Schedule

DEMOGRAPHIC INFORMATION

Could you please complete the following information about yourself?

- i. Age: In what year were you born? _____
- ii. Gender: _____ Male _____ Female
- iii. Occupation: _____
- iv. What is your highest educational achievement: _____
- vi. Country of Birth _____
- vii. If not local Chinese, what year did you arrive in Macau? _____

The following is the English version of the Interview Schedule. The Chinese version is provided in Appendix F.

Interview Schedule

Date of Interview: _____ Interviewer: _____

Name of Respondent: _____

The following is the list of areas covered in the unstructured interviews for the participants..

- What is their development background of the gamblers? Are there similarities or common themes in their development?
- What are their pathways of development in gambling? What triggers their first gambling experiences? Are there significant milestones in their development of pathological gambling?
- What are their favourite games and their choice of gambling venues and why?
- What are their subjective world and feelings towards gambling?

- How do they see their families and their communities?
- What are the cognitive schemas, especially their cognitive distortions of gamblers?
- What are their behavioural traits? And what are their personality characteristics?
- Do they have any somatic complaints like anxiety and headaches?
- Do they show any signs of clinical depression?
- What kinds of superstitions these individuals hold? Do these relate more to particular social issues in the local culture?
- How would factors such as locus of control and gamblers' fallacy influence these gamblers in their gambling habits?
- What are the behavioural outcomes of their cognitive patterns?
- What are their relationships with their families?
- What is their career development? How do their gambling habits influence their career?
- What are their daily living routines? How does their gambling fit in with their lives and those around them? How have their lives been influenced by their gambling behaviour?
- Have they attempted any treatment program for their gambling behaviour?
- What is the long-term prognosis of their gambling problems?

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Appendix F

Interview Schedule, Chinese Translation

All participants are asked about the basic demographic information in Appendix E. Then they will be interviewed according to the following schedule.

Chinese Translation of the Interview Schedule

面試日期: _____ 面談員: _____

受訪者名稱: _____

These are the areas covered by the semi-structured interview and the Chinese translation.

- What is the development background of the gamblers? Are there similarities or common themes in their development?

請寫出病態賭徒們的成長／生活背景，並分析各人的經歷，看看會否相似之處。

- What are their pathways of development in gambling? What triggers their first gambling experiences? Are there significant milestones in their development of pathological gambling?

詳述這些病態賭徒的成癮過程。是甚麼觸發了他們參與第一次賭博活動？會否有些重要經歷促使他們的賭博行為變成病態？

- What are their favorite games and their choice of gambling venues and why?

這些病態賭徒最常參與哪些賭博活動？喜歡在甚麼地方賭？為甚麼？

- What are their subjective world and feelings towards gambling?

這些病態賭徒怎麼看自己的生活？對賭博又有何看法？

- How do they see their families and their communities?

這些病態賭徒如何看待他們的家人和社區？

- What are the cognitive schemas, especially their cognitive distortions of gamblers?

他們對賭博有何認知？當中又有甚麼謬誤？

- What are their behavioural traits? And what are their personality characteristics?

這些病態賭徒有甚麼行為特徵？他們的性格特質又是甚麼？

- Do they have any somatic complaints like anxiety and headaches?

這些病態賭徒會否感到身體不適（例如：頭疼及心悸）？

- Do they show any signs of clinical depression?

他們是否有憂鬱症的病徵？

- What kinds of superstitions these individuals hold? Do these relate more to particular social issues in the local culture?

這些病態賭徒抱有甚麼迷信思想？這些思想會否與社會問題及文化背景有關？

- How would factors such as locus of control and gamblers' fallacy influence these gamblers in their gambling habits?

內外控傾向及思想謬誤等因素，如何影響他們賭博行為？

- What are the behavioural outcomes of their cognitive patterns?

病態賭徒們對生活的認知如何影響他們的行為？

- What are their relationships with their families?

病態賭徒們和他們家人的關係如何？

- What is their career development? How do their gambling habits influence their career?

他們的病態賭博行為有否影響他們的事業發展？

- What are their daily living routines? How does their gambling fit in with their lives and those around them? How have their lives been influenced by their gambling behaviour?

這些病態賭徒們的生活有甚麼規律？他們的病態賭博行為對自己及家人的生活帶來了甚麼影響？

- Have they attempted any treatment program for their gambling behaviour?

這些病態賭徒曾否尋求專業協助，嘗試戒賭？

- What is the long-term prognosis of their gambling problems?

他們的病態賭博行為，長遠會造成甚麼後果？

Appendix G

Problem Gambling Severity Index

"In the past 12 months how often ...

1. Have you bet more than you could really afford to lose?
2. Have you needed to gamble with larger amounts of money to get the same feeling of excitement?
3. Have you gone back another time to try and win back the money you lost?
4. Have you borrowed money or sold anything to get money to gamble?
5. Have you felt that you might have a problem with gambling?
6. Have you felt that gambling has caused you any health problems, including stress or anxiety?
7. Have people criticized your betting or told you that you have a gambling problem, whether or not you thought it was true?
8. Have you felt that your gambling has caused financial problems for you or your household?
9. Have you felt guilty about the way you gamble or what happens when you gamble?"

Scoring: 0= Never, 1= Sometimes, 2= Most of the time, 3= Almost always

Cut off scores: 1-2= Low risk, 3-7= Moderate risk, 8-27= Problem Gambler

Appendix H

A Chinese translation of the Problem Gambling Severity Index

請你想想過往十二個月內.....

1. 你有冇在賭博中下注多過你可應付的金額？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
2. 仍然是以往十二個月中，你有冇試過用大量的金錢去賭博以獲得興奮的感覺？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
3. 當你賭完之後，過些日子再去賭，希望贏回輸了的錢？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
4. 你有冇試過問人家借錢或賣去自己的物品以取得金錢去賭博？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
5. 你有冇感覺自己有賭博的問題？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
6. 賭博有沒有影響你的健康，包括壓力及憂慮？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
7. 曾經有人批評你的賭博行為或你有賭博的問題（就算你無感覺這是真的）？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常
8. 你的賭博有冇對你或你的家庭造成經濟問題？
☐從來沒有 ☐有些時候 ☐很多時候 ☐時常

9. 你有沒有對自己的賭博行為或賭博的後果有罪惡感？

☐從來沒有 ☐有些時候 ☐很多時候 ☐時常

完