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**The Impact of Gambling on Families in Hong Kong: The Role of Family Functioning**

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### **Abstract**

Despite substantial evidence that problem gambling is associated with a wide range of family difficulties, limited effort has been devoted to studying the negative impacts on family members as a result of problem gambling, particularly in Chinese communities. It was hypothesized that significant negative relationships would be found between family member impacts and family functioning; and significant positive relationship would be found between family functioning and health and psychological wellbeing. A total of 103 family members of problem gamblers who sought help from Tung Wah Group of Hospitals Even Centre in Hong Kong were interviewed. Results showed that a majority of family members were partners or ex-partners of the gambler with low or no income. Family functioning was negatively correlated to gambling-related family impacts and psychological distress, and was positively correlated to health and psychological wellbeing. The results provide preliminary support for patterns of family functioning that could protect families from negative impacts of addictions. It is suggested that a culturally-sensitive treatment modality that focuses on enhancing family functioning will facilitate improvement in gambling related family impacts.

*Keywords:* Family Functioning, Impact of Problem Gambling, Families, Chinese, Hong Kong

Extensive studies in a number of Western countries have been conducted on the impact of gambling on individual gamblers, as well as on family members, including spouses, children, parents, grandparents, siblings and other extended family members. Studies show that problem gambling causes significant disruption to marital relationships, family finances, and family functioning, and has a substantial impact on the mental and physical health of family members, including intimate partners, children, parents, and siblings (Dowling, Smith, & Thomas, 2007; Dowling, Suomi, Jackson & Lavis, 2016; Dowling, Rodda, Lubman, & Jackson, 2014; Hodgins, Shead, & Makarchuk, 2007; Kalischuk, Novatzki, Cardwell, Klein, & Solowoniuk, 2006; Patford, 2007; Suomi et al., 2013). For example, Dowling and colleagues (2014) studied a group of 366 concerned significant others (CSOs) accessing an Australian on-line gambling counselling service. The findings revealed that most the CSOs were female intimate partners of problem gamblers under 30 years old. The most commonly reported adverse impacts experienced by these CSOs included emotional distress (97.5%) and relationship problems (95.5%), followed by impacts on social life (92.1%), financial problems (91.3%), employment problems (83.6%), and physical health problems (77.3%). It has also been argued that family members of problem gamblers are at a higher risk of having alcohol disorders, substance use disorders, and physical and

mental health problems (Black, Monahan, Temkit, & Shaw, 2006; Orford, Velleman, Natera, Templeton, & Copello, 2013; Wenzel, Oren, & Bakken, 2009).

Despite these difficulties, family members who are affected by problem gambling often receive minimum attention and assistance to deal with the impact of problem gambling. Studies have reported that when family members undergo treatment, there is an improvement in overall adjustment, better treatment outcomes and co-creation of life pathways for gambling individuals and their family members (Hodgins et al., 2007; Ingle, Marotta, McMillan, & Wisdom, 2008; Kalischuk, 2010).

### **Family functioning and its relationship with the impacts of gambling on families**

When considering family functioning, families deal with several tasks that are divided into three areas: basic tasks, developmental tasks, and hazardous tasks (Epstein, Baldwin, & Bishop, 1983). Basic tasks address fundamental concerns such as the provision of food and shelter; developmental tasks address the interactions of families at different stages of development; and hazardous tasks address coping with crises which arise in association with illness, accidents, loss of income, job changes, and so on. According to the McMaster Model of Family Functioning, which was developed based upon general family system theory, there are six key dimensions of family functioning: problem solving, communication, roles, affective responsiveness,

affective involvement, and behavioural control (Epstein, Bishop, & Baldwin, 1984; Epstein, Bishop, & Levin, 1978; Miller, Ryan, Keitner, Bishop, & Epstein, 2000).

Walsh (2012) pointed out that stressors in life can derail the functioning of a family system, with ripple effects for all members and their relationships. Processes of resilience empower the family system to recuperate during times of adversity and reduce the risk of dysfunction among family members. It is vital to consider the contribution of cultural and spiritual resources in family resilience that emerge from interactions between individuals and their families, their communities and the larger system. Walsh (2012) further argued that the length of an adverse situation also affects how a person or family copes in adversity. Some families may do well with a short-term crisis but dissolve after coping long term with the cumulative strain of multiple, persistent challenges such as chronic illness, conditions of poverty or addictions. This accumulation of internal and external stressors can overwhelm the family and intensify the impact of adversity.

McCubbin and McCubbin (1996) argued that each family is bound to experience traumatic life events caused by external stressors, and every family has the capacity to resist the disruption and adopt positive management in the face of a crisis situation. A number of studies have reported that healthy family functioning, including family cohesion and healthy relationships, play a significant role in guarding against high-risk

behaviour and in enhancing family life satisfaction (Barber & Buehler, 1996; Barrera & Li, 1996; Dickson, Derevensky, & Gupta, 2008; Henry, 1994). In the case of problem gambling, Dickson and colleagues (2008) reported that healthy and meaningful relationships and family connectedness are associated with reduced problem gambling behaviour. As cited in Kalischuk et al. (2006), family environment may become a contributing factor in the development of problem gambling as problem gamblers tended to report greater dissatisfaction with the family situation than their family members, such as less cohesion, greater conflict, less independence in marriage relationships, lack of support, and emotional detachment.

Coyle and colleagues (2009), meanwhile, argued that patterns of family functioning may protect families from negative impacts in cases of alcohol abuse. It is argued that family functioning dimensions such as role adaptability, cohesion and positive beliefs about coping ability, good communication and problem solving skills could serve as a protective factor for families facing adversity. A study of 674 families in which at least one parent had an alcohol abuse problem showed that families with characteristics of above-average functioning also had above-average parenting and less substance abuse behaviour. This result supported the hypothesis that there were associations between family functioning, family resilience and family coping responses.

### **Family Functioning in Chinese Cultures**

Even though family studies have confirmed that family functioning may serve as a protective factor to enable family resilience and family coping responses in cases of adversity (Coyle et. al, 2009; Patterson, 2002; Rutter, 1985), there appear to be no existing gambling studies that have addressed these relationships, especially in the Chinese context. There are also few family functioning measures that assess the attributes and competence of Chinese families (Phillips, West, Shen, & Zheng, 1998). To assess Chinese family functioning, Shek (2002a; 2002b) constructed the Chinese Family Assessment Instrument (C-FAI) based on the McMaster Model of Family Functioning and its Family Assessment Device (FAD). Taking cultural specificity and socio-economic differences into account, Shek and colleagues (Shek & Chan, 1998; Shek, 2001) conducted a study on the attributes of happy families in Hong Kong by conducting semi-structured interviews with 416 families. The results showed that Chinese parents and their children regarded harmony, mutuality, connectedness, positive parent-child relationships, and the absence of conflict as the major attributes of a happy family. Based on these findings and the theoretical model of family functioning, Shek (2002b) constructed the Chinese Family Assessment Instrument (C-FAI) which includes five dimensions: (1) mutuality; (2) communication; (3) conflict and harmony; (4) parental concern; and (5) parental control. The measure was found to have good validity and reliability (Shek, 2002b). The five dimensions of the C-FAI are

very similar to the dimensions of family functioning described in Western literature including cohesiveness, communication, flexibility and autonomy. However, the conflict and harmony dimension was a distinct dimension of family functioning in Hong Kong Chinese families, reflecting the attribution of “absence of conflict”. Further exploratory factor analyses and confirmatory factor analyses supported the five dimensions of the C-FAI and coefficients of congruence was high (Siu & Shek, 2005).

Given the absence of literature exploring the family impacts of problem gambling in Chinese cultures, this study aimed to explore: 1) the demographic characteristics and health and psychological well-being (psychological distress, general health, quality of life) of the family members; 2) the gambling-related family member impacts (active disturbance, worrying behavior); 3) the family functioning (mutuality, communication, conflict and harmony); 4) the relationship between gambling-related family member impacts, family functioning, and health and psychological wellbeing. It was hypothesized that significant negative relationships would be found between family member impacts and family functioning; and significant positive relationship would be found between family functioning and health and psychological wellbeing.

## **Method**

### **Sample and Procedure**

Data were collected from a Chinese-dominant community. A purposeful sampling



strategy was used to recruit family members who were negatively affected by gambling problems. Family members of gamblers who sought help from a gambling treatment centre, namely the Tung Wah Group of Hospitals, Even Centre (TWGHs EC) in Hong Kong SAR, for their issues related to their family member's gambling problems within the data collection period (March 2011 to February 2012) were invited to join the study. Inclusion criteria were being over the age of 18 years, of Chinese ethnicity and able to speak and read Chinese. The exclusion criteria included manifestation of signs of cognitive impairments and/or showing imminent suicidal risk, as assessed and reported by their counsellors. In order to capture diverse experiences and avoid overlapping responses, when there was more than one family member from the same family presented at the service, the family would be asked to nominate one representative for this study. A total of 103 family members successfully completed an interviewer-administered questionnaire. The response rate was 60%.

Ethics approval was granted by the University of Melbourne's Humanities and Applied Sciences Human Ethics Sub-Committee (Ethics ID: 0830146) and the Victorian Department of Justice Human Research Ethics Committee (CF11/19644). The data were collected by trained professionals such as social workers and researchers. Informed written consent was obtained from all respondents in the study.

## Measures

**Kessler Psychological Distress Scale (K10).** The K10 is a validated measure (Kessler & Mroczek, 1994) of current (1 month) non-specific psychological distress. The scale is comprised of 10 questions asking respondents to indicate how frequently they experienced specific symptoms of psychological distress, such as nervousness, agitation, psychological fatigue, and depression. Each item has a 5-point response format ranging from (1) none of the time to (5) all of the time and the item scores are summed to obtain a total score. Scores can be categorised as low (10-15), moderate (16-21), high (22-29), and very high (30-50). The items of the K10 displayed excellent reliability in previous studies ( $\alpha = .93$ ) (Kessler et al., 2003).

**Short Form General Health Survey – single item (SF-1).** General health was assessed by using the SF-1 (Ware, Snow, Kosinski & Gandek, 1993), a single item measure of general health derived from the SF-36 (Ware et al., 1993). Family members were asked to report on their own health condition by the question: ‘In general, how would you describe your health?’ The response options ranged from (1) poor to (5) excellent. The SF-1 scale has been found to be correlated positively and significantly with the overall score for health-related quality of life (Cunny & Perry, 1991).

**World Health Organisation-Quality of Life BREF.** Quality of life was measured using the first item of the WHOQOL-BREF (Australian version) (Murphy,

Herrman, Hawthorne, Pinzone, & Evert, 2000). Family members were asked to answer a question about their perceived overall quality of life: 'How would you rate your quality of life?' The response options ranged from (1) very poor to (5) very good. Test-retest reliability in an Australian sample (n=114) is .57. Discriminant validity of the single item is good as it discriminates well across the full health spectrum (Murphy et al., 2000).

**Family Member Impact (FMI) Scale.** The 16-item FMI scale (Orford et al., 2005) was originally designed to measure the extent and type of harmful impacts on the family members of individuals with drinking or drug use problems. It has since been adapted for use with family members of relatives with gambling problems (Orford et al., 2005). Each item is followed by a four-point response option (0 = not at all, 1 = once or twice, 2 = sometimes, 3 = often). The scale scores were summed to produce a total family impact score, and were also categorized to give two subscale scores reflecting two different aspects of impact on family: (1) Worrying Behaviour (items related to the level of worry that the family members feel they have with regard to the client); and (2) Active Disturbance (items relating to physical disturbances caused by the problem gambler relative, together with difficulties due to the gambling problems). The FMI subscales have demonstrated moderate to good internal consistency with 0.74 for Worrying Behaviour Subscale and 0.69 for Active Disturbance Subscale.

**Chinese Family Assessment Instrument.** The Chinese Family Assessment Instrument (C-FAI) (Shek, 2002b) is a locally (Hong Kong) constructed instrument to assess family functioning in Chinese culture. It is a self-report instrument with 33 items with a five-point scale: (5) very unlikely, (4) somewhat unlikely, (3) between likely and unlikely, (2) somewhat likely and (1) very likely. Three of the five subscales of the C-FAI were selected for the current study: (a) Mutuality (mutual support, love and concern among family members); (b) Communication (frequency and nature of interaction among family members); and (c) Conflict and Harmony (conflicting and harmonious behaviour in the family). In order to make the score consistent with other measures for correlations testing, a reverse score transformation was performed so that a higher score on the subscales indicates more positive functioning in the family.

### **Data Analysis**

Missing data were coded to ensure that the incomplete data records could be detected easily. The amount of missing data was minimal to be 1.0 % in all the scales. Participants with any missing data in a particular scale or subscale were deleted for that scale or subscale. Descriptive statistics were performed on all dependent and independent variables including demographic characteristics, health and psychological wellbeing, the impact of gambling on family, and family functioning. Family impacts and family norms were compared to FMI and C-FAI norms using a series of one-sample

t-tests. Correlational analyses were then performed to investigate the associations among family functioning and the impact of gambling on family variables; and among family functioning and health and psychological wellbeing variables. Pearson's correlations were used for normally distributed variables while Spearman's correlations were used for non-normally distributed variables.

## **Results**

### **Demographic Characteristics**

The majority of family member participants were female (87.0%, n=87). The mean age of participants was 44.6 years (SD=11.9), with the majority of participants aged 41-50 years (29.1%, n=30) followed by 51-60 years (23.3%, n=25) and 31-40 years (19.4%, n=20). Most participants reported being married or cohabitating (70.8%, n=73), followed by being never married (15.5%, n=16) or divorced (3.9%, n=4). Most participants attained high school education (49.5%, n=51), followed by primary school or below (27.2%, n=28). The majority (85.4%, n=88) of participants reported living with other family members, with smaller proportions living as couple (8.7%, n=9) or living alone (3.9%, n=4). Most participants worked full-time or part-time (68.9%, n=71) or were homemakers (22.3%, n=23), with a smaller proportion of retired participants (7.8%, n=8). Most participants revealed having low or no income. One third (30.1%, n=31) reported having income ranging from HK\$5,001 to HK\$10,000 per month,

followed by no income (23.3%, n=24) and having income ranging from HK\$1 to HK\$5,000 (16.5%, n=17). Most of the participants were spouses, partners or ex-partners of gamblers (63.1%, n=65), followed by offspring (17.5%, n=18) and siblings (13.6%, n= 14) (Table 1).

### **Health and Psychological Wellbeing**

Participants were invited to report their level of psychological distress on the K10. The mean for psychological distress was 20.2 (SD = 7.3), with most (61.8%) reporting moderate psychological distress. Over one-quarter (27.4%) of family members reported low or no psychological distress and a small proportion reported high psychological distress (10.8%) (Table 1). According to the result on the SF-1, the majority of family members (51.5%, n=53) reported fair health followed by good (32.2%, n=33) and poor (8.7%, n=9) health. Only 3.9% (n=4) reported having good or excellent general health. The mean score for the general health condition for the family members was 2.4 (SD = 0.9). Most of the participants reported neither good nor bad quality of life (54.4%, n=56), followed by good (30.1%, n=31) and poor (9.7%, n=10) quality of life on the single-item Quality of Life- WHO BREF question. The mean score on Quality of Life – WHO BREF question for participants was 3.3 (SD = 0.8). A series of cross-tabulations to understand the distribution of demographic characteristics on health and psychological wellbeing revealed no significant findings.

## **The Impact of Gambling on the Family**

Participants were invited to report on the Family Member Impact Scale about the impact of gambling on themselves. The mean scores for the Worrying Behaviour subscale and the Active Disturbance subscales were 17.0 (SD = 7.2) and 8.1 (SD = 4.3) respectively (Table 1). The scores for the Worrying Behaviour subscale and the Active Disturbance subscale were significantly lower than those based on a sample of participants of relatives with alcohol, drugs or gambling problems in a previous study (Worrying Behaviour: Mean=19.92,  $t(101)=-4.02$ ,  $p<0.001$ ; Active Disturbance: Mean = 10.71,  $t(101)=-6.23$ ,  $p<0.001$ ) (Orford et al., 2005). A series of cross-tabulations to understand the distribution of demographic characteristics on family impacts revealed no significant findings.

## **Family Functioning**

Using the Chinese Family Assessment Instrument, participants were invited to report their own perceptions of family functioning. The Conflict and Harmony subscale received a slightly higher mean score of 3.71 (SD = 0.72) followed by the Mutuality subscale (Mean = 3.63; SD = 0.91) and the Communication subscale (Mean = 3.38; SD = 0.88) (Table 1). Due to the design of the scale, a reverse score transformation was performed so that a higher score in the three family functioning subscales indicated more positive functioning in the family to make the score consistent with other

measures for correlations testing. The scores for these three subscales were significantly lower (lower functioning) than the normative sample of family household in Hong Kong (Mutuality: Mean = 4.1;  $t(102) = -5.28$ ,  $p < 0.001$ ; Communication: Mean = 3.7;  $t(102) = -3.65$ ,  $p < 0.001$ ; Conflict and Harmony: Mean = 4.0;  $t(102) = -4.16$ ,  $p < 0.001$ ) (Home Affairs Bureau, 2011).

### **Correlations Between Family Functioning and the Impact of Gambling on the Family**

Pearson's correlation analysis was used to examine the relationship between the Mutuality subscale of C-FAI and the Worrying Behaviour subscale of FMI; and between the Conflict and Harmony subscale of C-FAI and the Worrying Behaviour subscale of FMI because these data were normally distributed. Non-parametric Spearman's correlations were used to examine the relationships between the remaining C-FAI and FMI subscales.

There were significant negative correlations between the Worrying Behaviour subscale and Mutuality subscale ( $r(102) = -0.16$ ,  $p = 0.03$ ), Communication subscale ( $r(102) = -0.33$ ,  $p < 0.01$ ) and Conflict and Harmony subscale ( $r(102) = -0.24$ ,  $p < 0.01$ ) (Table 2).

Significant negative correlations were also found between the Active Disturbance subscale and Mutuality subscale ( $r(102) = -0.40$ ,  $p < 0.001$ ), the



Communication subscale ( $r(102) = -0.39, p < 0.001$ ) and the Conflict and Harmony subscale ( $r(102) = -0.39, p < 0.001$ ) (Table 2).

### **Correlations Between Family Functioning and Health and Psychological Wellbeing**

Non-parametric Spearman's correlations were used to examine the relationships between all the subscales of C-FAI and psychological distress (K10), Short Form General Health Survey – single item (SF-1), World Health Organization-Quality of Life BREF single item (QoL-BREF).

There were significant negative correlations between the Mutuality subscale and K10 ( $r(102) = -0.33, p < 0.01$ ), between the Communication subscale and K10 ( $r(102) = -0.31, p < 0.01$ ), and between the Conflict and Harmony subscale and K10 ( $r(102) = -0.33, p < 0.01$ ) (Table 2). Significant positive correlations were found between the Mutuality subscale and SF-1 ( $r(103) = 0.21, p = 0.04$ ), and between the Conflict and Harmony subscale and SF-1 ( $r(103) = 0.22, p = 0.03$ ) (Table 2). However, there was no significant correlation found between the Communication subscale and SF-1 ( $r(103) = 0.13, p = 0.20$ ) (Table 4). Under the constructs of Quality of Life, there were significant positive correlations between the Mutuality subscale and QoL-BREF ( $r(103) = 0.33, p < 0.01$ ), the Communication subscale and QoL-BREF ( $r(103) = 0.24, p = 0.02$ ), and the Conflict and Harmony subscale and QoL-BREF ( $r(103) = 0.25, p = 0.01$ ) (Table 2).

## Discussion

In this study, the family member sample was comprised mostly of help-seeking family members who were female partners or ex-partners of gamblers. Since there is evidence that other extended family members and concerned significant others (CSOs) such as siblings, parents, grandparents, friends and colleagues are also affected by problematic gambling behaviour (Dowling et al., 2014), further investigation is needed to understand more about the impacts on CSOs other than partners in Chinese communities.

Most family members (61.8%) reported a medium level of psychological distress, with an additional 10.8% reporting a high level. Most family members (60.2%) reported fair or poor health on the single-item General Health question and 64.1% reported poor or neither good nor bad quality of life using the single-item Quality of Life question. These results correspond with previous studies showing that affected family members often suffer from a wide range of health and psychological difficulties (Dowling et al., 2014; Dowling et al., 2015; Lesieur, 1998; Lorenz & Shuttlesworth, 1983; Lorenz & Yaffee, 1988; Orford et al., 2013; Wenzel et al., 2009).

The scores for Family Member Impacts were lower than the family members of individuals with addictions (alcohol, drug or gambling problems) from a previous study (Orford et al., 2005). These findings may be due to cultural differences in the way

Chinese family members experience impacts of gambling, and the way they adopt coping strategies. They may, however, also be due to the clinical and convenience sampling method employed in the current study, whereby clinical samples may initiate positive coping through help seeking decisions. Future research exploring the differences in family impact and coping of gambling disorder between clinical and non-clinical populations within the Chinese communities may generate a clearer understanding of how family members cope and function in the face of a relative's gambling disorder. For the current results, we can assume that for family members who employed positive coping through help seeking actions might reduce the level of adverse impacts on themselves. This reinforces the need for public education on reinforcement of help seeking and positive coping behaviours for family members affected by a family member's gambling disorder.

Significant correlations were found between all subscales of the C-FAI (Mutuality, Communication, and Conflict and Harmony) with both subscales of the FMI (Worrying Behaviour and Active Disturbance). These results supported the hypothesis that different aspects of family functioning would be related to the impact of gambling on family. For example, the results suggest that lower levels of mutual support, love and concern among family members was related to difficulties caused by the problem gambling and the level of worry that the family members feel they have with regard to

the gambler. Furthermore, findings indicated that higher harmony in the family was associated with less adverse impacts on family. These results are supported by a study on the attributes of happy families in Hong Kong which found that Chinese parents and their children regarded the absence of conflict and the presence of harmony, mutuality, connectedness and positive parent-child relationships as the major attributes of a happy family (Shek & Chan, 1998; Shek, 2001). The correlations between Conflict and Harmony subscale with both Worrying Behaviour subscale and Active Disturbance Subscale has confirmed that absence of conflict and presence of family harmony is a positive quality that contributes to the reduction of adverse impact of gambling on the family.

In terms of general health, both subscales of Mutuality and Conflict and Harmony were significantly connected with general health except for the Communication subscale. Furthermore, all subscales of family functioning were found to be significantly correlated with quality of life, suggesting that higher family functioning is associated with better general health and quality of life. For psychological distress, significant negative correlations were found between all subscales of C-FAI (Mutuality, Communication, and Conflict and Harmony) and K10 reflecting that better family functioning will reduce the level of psychological distress.

Despite the modest relationships, these results indicated that family functioning was related to family members' psychological distress, general health, and quality of life. These results are supported by existing literature that there are strong associations between family functioning with psychological well-being and problem behaviour and that families with better family functioning have better mental health, school adjustment and fewer behaviour problems (Kwok & Shek, 2009; Shek, 1997). Stanescu and Romer (2002), in studying how children cope with family member's illnesses, pointed out that the quality of the parent-child relationship and other intra-familial attachments are important elements which explain how exposure to parental illness or severe stress in families may or may not lead to psychological problems in children. Since there are no comparable data to this study, these findings provide meaningful insights which can facilitate the development of a treatment program which particularly focuses on enhancing aspects of family functioning.

Although the strengths of the reported correlations were modest, the results of the current study have confirmed that better family functioning is associated with better health and psychological well-being of family member participants. Although the results in this study do not predict a causal relationship between variables, it is reasonable to believe that positive factors in family functioning will curtail the negative impact of gambling on family; and low family functioning will intensify the negative

impact of gambling on family including health and psychological well-being. These results correspond with previous studies that have found that patterns of family functioning protect families from a negative impact in cases of addiction (Coyle et al., 2009; Patterson, 2002; Rutter, 1985). It has been argued that family functioning variables such as role adaptability, cohesion, and positive beliefs about coping ability, good communication and problem solving skills can serve as a protective factor for families facing adversity (Coyle et al., 2009; Patterson, 2002; Rutter, 1985). Therefore, treatment modality that focuses on enhancing family functioning will facilitate improvement in gambling related family impacts. However, these correlations do not predict directions between variables, it is necessary to note here that the gambling related family impacts may also serve to reduce the level of family functioning. It also implies that evaluation of family functioning should be considered when we examine the impacts of problem gambling on family.

### **Limitations**

There are a number of limitations to this study. The current study employed clinical and convenience samples from a treatment service. While positive coping may be initiated through help seeking decisions, treatment-seeking family members are likely to have experienced higher impacts as a result of the family member's gambling behaviour. Hence, a bias created by the treatment-seeking nature of the sample cannot

be excluded. Second, a relatively small sample size in the current study may limit the validity of the analysis and the generalisability of the findings. Third, most (87%) family members were female, with only 13% being male. This gender bias may generate useful gender-specific data but may affect the generalisability of the results.

### **Implications for practice**

Despite these limitations, this study has generated original and valuable data for understanding the impacts of problem gambling on family members and the relationship between family functioning and gambling-related family impacts in the help seeking family members of problem gamblers from the Hong Kong Chinese culture. The findings of this study help to generate culturally appropriate theoretical model in facilitating the development of family sensitive and effective treatment programs.

In terms of treatment modality, it is recommended that skills enhancement programs and treatment groups in family functioning and family coping should be developed. Although there are some family focused coping programs in Western cultures (Copello, A, et. al, 2008), clinical trials are needed for Chinese cultures. Treatment components should involve adaptation of healthy coping strategies including self-care, interest building and expansion of social support.

It is also suggested that development and validation of a culturally sensitive screening protocol for gambling-related family impacts and family functioning will contribute to the design of an integrated and family sensitive service model and case management plan. Since problem gamblers tend not to seek help until they have reached a crisis, an increase in public health promotion to encourage family members' help seeking as early as possible is recommended. Finally, it is vital to conduct professional training to gambling counsellors and other health care professionals to enhance their competency in assessing and treating family members who are affected by problem gambling.



Table 1

## Demographic Characteristics

Variables	<i>N</i>	%
<b>Gender</b>		
Male	16	15.5
Female	87	84.5
<b>Age</b>		
	Mean=47.1; SD=12.5	
20 or below	0	0
21-30	11	10.7
31-40	20	19.4
41-50	30	29.1
51-60	25	24.3
61 or above	17	16.5
<b>Marital status</b>		
Never Married	16	15.5
Married or Cohabitated	73	70.8
Divorced	4	3.9
Separated	5	4.9
Widowed	4	3.9
<b>Education attainment</b>		
Primary School or Below	28	27.2
High School	51	49.5
Certificates of Diploma	11	10.7
University of above	13	12.6
<b>Living Arrangement</b>		
Living alone	4	3.9
Living with couple only	5	4.9
Living with family members	92	89.3
Others	1	1.0
<b>Economic status</b>		

Full-time or part-time work	71	68.9
Unemployed	0	0
Homemakers	23	22.3
Retired	8	7.8
Others (e.g. student, disability)	1	1.0
Income HK\$		
\$0	24	23.3
\$1 - \$5,000	17	16.5
\$5,001 - \$10,000	31	30.1
\$10,001 - \$15,000	9	8.7
\$15,001 - \$20,000	10	9.7
\$20,001 - \$25,000	2	1.9
\$25,001 or above	10	9.7
Psychological Distress K10	Mean=20.2 (SD=7.3)	
Low or no risk (10 - 15)	28	27.4
Medium risk (16 - 29)	63	61.8
High risk (30 - 50)	11	10.8
Quality of Life-WHO BREF		
Very good	5	4.9
Good	31	30.1
Neither good or poor	56	54.4
Poor	10	9.7
Very poor	1	1.0
Gambling related family impacts		
Active Disturbance (0-18)	Mean=8.1 (SD=4.3)	
Worrying Behavior (0-30)	Mean=17.0 (SD=7.2)	
Family functioning <sup>a</sup>		
Mutuality (1-5)	Mean=3.63 (SD=0.91)	
Communication (1-5)	Mean=3.38 (SD=0.88)	
Conflict and Harmony (1-5)	Mean=3.71 (SD=0.72)	

Note: <sup>a</sup> indicates the items that the scores were reversed, and the reversed scores were used in calculating the subscale scores

Table 2

Correlations between Family Functioning and variables for Family Members Impact and Health and Psychological Wellbeing

	FMI -WB	FMI-AD	K10	SFHS	QoL-BREF
C-FAI					
Mutuality	-.16*	-.40**	-.33**	.21*	.33**
Communication	-.33**	-.39**	-.31**	.13	.24*
Conflict and Harmony	-.24**	-.39**	-.33**	.22*	.25*

\*\*p<.01, \*p<.05

Note: FMI-WB = Family Members Impact –Worrying Behavior Subscale; FMI-AD = Family Members Impact –Active Disturbance Subscale; K10 = Kessler Psychological Distress Scale; SFHS = Short Form Health Survey – single item; QoL-BREF = World Health Organization Quality of Life BREF.

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