

## **Seeking Help for Mental Health Problems in Hong Kong: The Role of Family**

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## **Conflict of Interest**

None. The funders had no role in study design, data collection, data analysis, data interpretation, or manuscript preparation.

## **Compliance with Ethical Standards**

Approvals for the ethical review of research projects involving human subjects were granted to the authors by their home universities. All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

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## Abstract

Family members, rather than mental health professionals, are often the first responders for emotional or mental problems, particularly in Chinese societies where family is regarded as the primary care unit. Using data from the third wave of a representative sample of Chinese adults in the Hong Kong Panel Study of Social Dynamics (HKPSSD), we investigate how family, and particularly family functioning, is associated with individual mental health help seeking and perceived barriers to professional service use, and how the associations vary across different generations of immigrants and between individuals with high versus low psychological distress. Our results demonstrate that family is still the primary source of help sought for mental health problems. Stronger family functioning is particularly significant for second-generation immigrants when they consider seeking help from immediate family members. Seeking professional help is uncommon, and stronger family functioning is associated with a lower probability of seeking help from general health professionals and alternative services. A well-functioning family is related to certain structural and cultural barriers to seeking professional help, yet trust in professional mental health services does not diminish along with stronger family functioning, even among the high psychological distress subgroup. The findings indicate that family can facilitate mental illness prevention and service integration. It is recommended that appropriate family support and services be incorporated into mental health treatment according to clients' differential family circumstances.

**Keywords:** Mental health; Help seeking; Family; Barriers; Service integration; HKPSSD

## **Seeking Help for Mental Health Problems in Hong Kong: The Role of Family**

### **Highlights**

- Family is still the primary source of help sought for mental health problems in Hong Kong.
- Stronger family functioning is particularly significant for second-generation immigrants.
- Stronger family functioning is associated with a lower probability of seeking help from general health professionals and alternative services.
- A well-functioning family is related to certain structural and cultural barriers to professional help.
- Trust in professional mental health services does not diminish along with stronger family functioning.
- Family and mental health services should be integrated according to clients' particular family circumstances.

# Seeking Help for Mental Health Problems in Hong Kong: The Role of Family

## Introduction

Mental illnesses contribute substantially to the burden of disease worldwide and create great challenges for individuals and their families (Kessler et al., 2009). During the help-seeking process for mental health problems, family members, rather than mental health professionals, are often the first responders (Villatoro et al., 2014). Despite the family's importance, scant research exists concerning the specific effect of family on mental health help seeking, on the use of professional mental health services, or on the structural and cultural barriers to seeking appropriate professional help. In this article, we place a special emphasis on family and investigate its role on mental health help seeking. We specifically focus on the case of Hong Kong—a modern and developed city, on the one hand, where mental illness has become a focus of growing public concern, and a typical Chinese society, on the other hand, which is still greatly influenced by Confucian values that emphasize the caregiving role of family and discourage people from seeking professional help for emotional or mental problems (Abe-Kim et al., 2002; Chow & Lum, 2008).

In this article, we first review relevant theories that guide our research. We then introduce the unique family and immigration context of Hong Kong and present our research questions. We describe our data, measures, and analytical strategy, and discuss our findings in the following sections. We conclude with suggestions for providing mental health services according to clients' differential family circumstances.

### *Alternative resource theory and barrier theory*

Alternative resource theory and barrier theory are the two major theories developed to explain the underuse of professional mental health services. According to the alternative resource

theory, informal networks, including family, friends, and so forth, act as alternatives to formal mental health services for coping with emotional distress and other mental-health-related problems, which leads to the underutilization of professional mental health services (Villatoro et al., 2014). Yet, we cannot simply assume that family will always be a source of appropriate help and support. Some families cannot effectively render help to their members because of dysfunctional or unhealthy family dynamics or conditions such as strained family ties (i.e., family burdens, family cultural conflict) (Masood et al., 2009; Molina & Alcántara, 2013). Even if there is no family pathology, family members may not have the skills to help. The structure and dynamics of a particular family—whether supportive or inhibiting—will be crucial in determining family members’ patterns of help seeking for emotional or mental problems (Abe-Kim et al., 2002).

As suggested by the alternative resource theory, a well-functioning family may deter its members from seeking necessary help through professional means. Higher family cohesion and greater family involvement have been found to be associated with use of fewer mental health care services, longer duration of non-treatment, and lower treatment intensity among Chinese populations in various oversea contexts (Chang et al., 2013; Compton et al., 2008; Maulik et al., 2009; Snowden, 2007; Wong & Li, 2014). Conversely, for Chinese Americans suffering from mental illness, family conflict is a key factor prompting professional mental health service seeking: disrupted family harmony appears to trigger appeals to outsiders for assistance (Abe-Kim et al., 2002). Immigrants have been found to report greater family conflict than their native-born counterparts in countries such as the U.S. (Walton & Takeuchi, 2010). Not only conflicts between husbands and wives coming from different cultural backgrounds but also intergenerational conflicts between first and subsequent generations of immigrants can undermine cohesive familial bonds (Chen & Takeuchi, 2011; Ta et al., 2010). The generational shifts of immigrants provide critical insights into how family factors influence individual

mental health help seeking and service use, and, consequently, shape mental health prevention and treatment programs in ways that address generational differences as well as differential family circumstances (Chang et al., 2013).

According to the barrier theory, cultural barriers concerning values and norms, and structural barriers relating to characteristics of the mental health service system also deter people of certain social groups from seeking professional help (Chen, 2012; Villatoro et al., 2014). The nature of family ties may either increase or decrease professional help-seeking behaviors depending on the family context. More cohesive families may provide the means of referral to, or the necessary financial support for, professional mental health treatment, but these same families may also find it embarrassing or even stigmatizing to disclose members' mental health problems to those outside their social network (Ta et al., 2010; Villatoro et al., 2014).

In an extension of the barrier theory, cultural factors are often cited to account for the underuse of mental health services among Chinese living abroad (Abe-Kim et al., 2007; Atkinson & Gim, 1989; Chen et al., 2009; Tata & Leong 1994) and in mainland China (Chen, 2012, 2018; Shen et al., 2006; Wong & Li, 2014). These factors include lack of trust in professional treatment (Ho et al., 2008), perceived discrimination (Spencer & Chen, 2004), embarrassment or "loss of face" (Spencer et al., 2010), and stigmatization (Takeuchi et al., 1988; Yamamoto & Acosta, 1982). Although the importance of "saving face" persists in various social contexts, the reluctance of Chinese people to seek professional mental health services cannot be explained by cultural constraints alone. Research also indicates that structural barriers, such as lack of knowledge about available treatments, lack of access to services, high costs, and time constraints, act as even greater deterrents to professional help seeking than cultural barriers and are significant factors when predicting professional mental health service use among Chinese populations (Chen, 2012, 2018; Ho et al., 2008; Kung, 2004).

Given the crucial influence of family on mental health help seeking in Chinese societies, further research is needed to ascertain the role of family in relation to these structural and cultural barriers to professional mental health services (Chang et al., 2013).

### ***The study context and research questions***

Although one of the most economically developed cities in the world with growing societal stresses, Hong Kong is still a typical Chinese society that is greatly influenced by Confucian values and puts family at the core of caregiving (Chow & Lum, 2008). According to the Hong Kong Mental Morbidity Survey 2010–2013, 13.3% of the 5,719 respondents have significant levels of common mental disorders, and mixed anxiety and depressive disorder is the most frequent diagnosis, with approximately 1 in 14 (6.9 %) participants meeting its diagnostic criteria (Lam et al., 2015). Still, seeking professional help for emotional or mental problems is not a common practice. The 2011 Behavioural Risk Factor Survey found that 97.5% of those respondents who report psychological distress and 81.1% of those classified as suffering from severe psychological distress never seek professional help (Bacon-Shone, 2012). Several studies have examined mental health help-seeking behaviors and service use among Chinese residing in Hong Kong, and some of the same cultural barriers—lack of trust (Mo & Mak, 2009) and stigma (Chung & Wong, 2004)—have been identified to account for the underuse of professional mental health services. Yet few studies have considered the family context and systematically examined mental health help seeking and service use that occurs despite the emphasis on family values.

Investigating the patterns of help seeking for mental health problems among Chinese residents in Hong Kong entails considering not only family circumstances but also the unique immigration context. According to the 2011 Hong Kong Population Census, only 60.5% of the Hong Kong population were born in Hong Kong; 32.1% come from mainland China, Macao,



or Taiwan; and another 7.4% were born elsewhere (Hong Kong Census and Statistics Department, 2011). From 1997 to 2001, new immigrants coming from mainland China through the One-Way Permit scheme accounted for 93% of Hong Kong's population growth (Hong Kong SAR Government, 2003). Although the number of new immigrants from mainland China decreased after 2001, a significant level of migration has continued—the majority being women and children migrating to reunite with their family (Zhang, 2014; Zhou, 2016).

Studies have demonstrated the difficulties of the new mainland immigrants in adapting to life in Hong Kong, particularly problems in family relationships and lack of social support, which affect their mental health status and service utilization (Liu et al., 2013; Wu & Chow, 2013). Like Chinese immigrants in other countries, immigrants from mainland China to Hong Kong lack other forms of social networks so that they are likely to turn to their immediate family members for emotional support (Derr, 2016). Yet, unlike Chinese immigrants in other social contexts, mainland immigrants share an ethnicity and culture with the natives of Hong Kong, which may minimize language and cultural barriers to professional help seeking (Xu & Wu, 2017; Zhang & Wu, 2011).

Given Hong Kong's unique immigration context and the importance of family values in Chinese society, having a systematic and in-depth understanding of how family characteristics may be associated with mental health help seeking and barriers to professional service use is necessary to determine the role of family in mental health help seeking while taking into account immigration generational status. Most existing studies concerning mental health help seeking and service use in Hong Kong focus on particular groups of respondents such as psychiatric out-patients (Chung & Wong, 2004), primary care patients (Chin et al., 2015), and college students (Chen & Mak, 2008). Data based on a representative sample of the population are needed to examine the overall patterns of help seeking and service use for mental health problems and the associated barriers while taking into account the family context, with

the goal of making the mental health service systems as well as the support networks more syntonetic.

Based on the analysis of the representative data from Hong Kong Panel Study of Social Dynamics (HKPSSD), we attempt to answer the following questions: Where do Chinese residents in Hong Kong turn for help when they experience emotional or mental problems? Are family members the source of help sought the most? Who are more likely to rely on family members for help and support? What family characteristics are associated with being the source of help sought for emotional or mental problems? How do the associations differ by immigration generational status? Meanwhile, how does family function as a risk or protective factor in relation to other types of help sought? What are the structural and cultural barriers people perceive when they attempt to access professional mental health services? How is family functioning associated with these perceived barriers to seeking professional help? Given their differential circumstances and apparently greater need for help, do people who are more psychologically distressed have distinct help-seeking patterns and significant predictors? Such a systematic examination of help-seeking behaviors based on a representative sample of adult Chinese population residing in Hong Kong will enable us to better understand the bases of choices regarding help seeking for emotional or mental problems, to unravel the role of family in mental health help seeking, to assess the perceived structural and cultural barriers to professional mental health service use associated with general family functioning, and to explore potential intervention strategies for mental health problems that take into account the family context.

## **Data, Measures, and Analytical Strategy**

### ***Data***

The study uses data on adult participants from the third wave of the Hong Kong Panel Study of Social Dynamics (HKPSSD)—a representative household panel survey with 2,404 households, 5,160 adults, and 477 children interviewed in 2015. The tracking rate was 71.6% at the household level and 85.1% at the individual level (Wu, 2016). As the data come from a follow-up survey of a panel study, sample attrition has been taken into consideration. Cross-sectional weights were generated to adjust the individuals in the study sample to the 2011 Hong Kong Population Census on a set of key variables, including age and sex group, main economic activity status, and highest level of education completed. After proper weighting, the sample is representative of the Hong Kong adult Chinese population.

Both the questionnaire design and the survey implementation of HKPSSD are products of the computer-assisted personal interviewing (CAPI) system and its web support system. In executing the third-wave fieldwork, we followed the same strict procedures for data quality control and progress monitoring. All interviewers attended a two-day training session to familiarize themselves with the questionnaire content and the CAPI system. They were also assessed by a group of project research staff before they started the fieldwork. CAPI and its web support system allow fieldwork supervisors and research staff to monitor the progress of fieldwork, check for sample bias, and assess data quality simultaneously. Any abnormal patterns or problems were brought to the fieldwork team's attention for immediate follow-up. After the fieldwork interviews, a process of data checking, editing, and recoding (e.g., for occupation) were carried out to produce a clean, consistent, and accurate database (Wu, 2014; Wu, 2016).

The design of the HKPSSD emphasizes the importance of family as an institution that links individuals to the macro-level social structure. The survey collects quantitative data in three main areas: the role of family as an important agent in providing resources and opportunities, and affecting intergenerational mobility; family life in the context of rapid social

transformation; and subjective well-being, values, and attitudes towards social change, inequality, and family (Wu, 2016). The focus on family of the HKPSSD has enabled us to better explore how family structure and dynamics are associated with mental health and help seeking. In addition to the information provided by the standard household and individual questionnaires of the HKPSSD, we added questions to the individual adult questionnaire in the third wave of survey in three new areas: mental health help seeking and service use in the past 12 months, perceived structural and cultural barriers to accessing professional mental health services, and the McMaster Family Functioning Scale (measuring general family functioning). The information we gathered in the third wave of the HKPSSD provides a detailed description of the patterns of help seeking and barriers to service use among the Chinese population in Hong Kong with a special focus on the family context.

## ***Measures***

### *Seeking help for mental health problems*

We assessed help-seeking methods for mental health problems by asking participants, “In the past 12 months, did you ever seek help from any of the listed sources for emotional problems or mental distress?” The list comprised the following five major sources of help: immediate family members; informal networks (including extended family members or friends, neighbours or hometown fellows, and colleagues); mental health professionals (including psychiatrists, psychologists, psychotherapists, and social workers); general health professionals (including general physicians, family doctors, and nurses); and alternative services (including community organizations, government organizations, religious organizations, spiritual advisors or folk healers, hotlines, and forums or chatrooms on the Internet). The variables were dichotomously coded for the five broad areas of sources of help

sought in the previous 12 months (1 = at least once; 0 = none). In this study, we particularly focus on seeking help from immediate family members and from mental help professionals.

#### *Perceived barriers to using professional mental health services*

Perceived barriers to seeking professional help were assessed with the following hypothetical question: “Here are some reasons that people give for not seeking professional help for emotional problems or mental distress even when they might need it. Do any of these statements apply to you?” The statements address two perceived structural barriers: accessibility (“I am unsure about where to go or who to see”; “There is no professional service provider within my area”) and affordability (“I am concerned about how much money it would cost”; “I think it would take too much time”). They also address three cultural barriers: lack of perceived need (“The problem will go away by itself”; “I would prefer to handle the problem in another way”), lack of trust (“I do not think professional treatment would help”; “I fear being hospitalized against my will”), and embarrassment or stigma (“I am concerned about what people would think if they found out I was in treatment”; “I do not feel comfortable discussing my problems with a professional”). These questions were originally developed for surveys with Chinese Americans in the U.S. (Spencer & Chen, 2014; Spencer et al., 2010). They were translated and back-translated into Chinese and have been tested among Chinese residents in mainland China (Chen, 2012; Chen & Zhu, 2016). The variables were dichotomously coded for the two structural barriers and three cultural barriers (1 = at least one; 0 = none).

#### *Mental health status*

Mental health was assessed using the Hopkins Symptom Checklist (HSCL-10), a well-known and widely used screening instrument that measures psychological distress among adolescents and adults (Derogatis et al., 1974; Kleppang & Hagquist, 2016). The HSCL scale has been

previously proved to be reliable when used with Chinese Americans (Leung et al., 2012). The Cronbach's  $\alpha$  was 0.85 for the study sample. The scores on the 10 items were summed up, and the total scores range from 10 to 40 with higher scores indicating higher psychological distress.

#### *Self-rated physical health*

Self-rated physical health was assessed based on the respondents' answer to the question, "In general, how would you rate your overall physical health?" measured on a 5-point scale, ranging from 1 (poor) to 5 (excellent). It is used to control for potential psychosomatic and somatopsychic effects in the analysis, which are of particular concern when studying mental health in the Chinese context (Corin, 1995; Kleinman, 1986; Shen et al., 2006).

#### *General family functioning*

The McMaster Family Functioning Scale, a subscale of the McMaster Family Assessment Device (FAD), was administered to measure general family functioning (Epstein et al., 1983; Miller et al., 1985). Respondents used a 4-point scale to rate the degree to which they agree with 12 statements (six positive and six negative) when applied to the situation of their families. The 12-item subscale of the McMaster Family Assessment Device (FAD) has been validated as a single index measure to assess family functioning and has been widely used by other scholars (Boterhoven de Haan et al., 2015). The validity of this scale has been tested for Chinese families in Hong Kong (Shek, 2001). After the negative items were reverse scored, the Cronbach's  $\alpha$  of the scale was 0.78 for the study sample, indicating a high level of internal reliability. A participant's family functioning score is the sum of the 12 items, ranging from 12 to 48, with higher scores indicating better family functioning.

#### *Demographic characteristics*

Demographic information includes age, gender, and marital status (married, never married, and separated/divorced/widowed). Immigration generational status is coded into three categories: natives (respondents born in Hong Kong with both parents born in Hong Kong), second-generation immigrants (respondents born in Hong Kong with at least one parent not born in Hong Kong), and first-generation immigrants (respondents born outside Hong Kong).

#### *Socio-economic status*

Measures of socio-economic status at the individual level include educational and occupational status. Education is coded according to four levels: primary or below, lower secondary, upper secondary, and tertiary. To determine occupational status, we asked the respondents to choose one of the occupational categories from a list; meanwhile, the respondents were also required to state their specific job title, content, and responsibilities. The collected information was cross-checked and recoded by trained researchers into three categories: managerial, professional, and associate professional occupations; non-managerial and non-professional occupations; and currently not working.

#### *Family characteristics*

Family characteristics measured at the household level include family income (average total household monthly income [HKD] in the past 12 months in natural logarithm form), housing type (public, subsidized, and private), and household size.

#### *Analytical strategy*

To answer the research questions, descriptive statistics were estimated in the analysis of socio-demographic characteristics, help seeking in the previous 12 months, and perceived barriers to seeking professional help. Multiple logistic regressions were applied to an analysis of the

associations of general family functioning with help seeking in the previous 12 months and perceived barriers to seeking professional help. The dependent variables were sources of help sought (immediate family members, informal networks, mental health professionals, general health professionals, or alternative services) and perceived structural and cultural barriers to seeking professional help. HSCL psychological distress, self-rated physical health, individual and family demographic and socio-economic characteristics were controlled in the model specifications. An interaction term between general family functioning and immigration generational status was also included in the models on seeking help from immediate family members to discern how the situation may vary across different generations of immigrants.

To determine whether people who are more psychologically distressed have distinct help-seeking patterns and significant predictors, an additional analysis was run for the high HSCL subsample (N = 369) who scored above 15 on the Hopkins Symptom Checklist (HSCL-10) for purposes of comparison with the low HSCL subsample (N = 4,220) who scored 15 or below on HSCL-10.

Survey weights and clustering at the household level were taken into account throughout the analysis. Weighted means or percentages and robust standard errors were reported in the descriptive statistics. *T* tests or *Chi*-square tests were conducted to discern the differences between the high HSCL subsample and the low HSCL subsample when presenting descriptive statistics. The weighted maximum-likelihood method was used to estimate the parameters according to which the odds ratios, probability levels, confidence intervals, and Wald F statistics of the multiple logistic regressions were calculated.

A total of 571 cases (11% of the whole sample) had missing data on variables used in the analysis. To determine whether the missing data were randomly distributed among the respondents, we performed the Little's Missing Completely At Random (MCAR) Test (Little, 1988). Because the significance value was less than 0.05, we could not conclude that the data



were missing completely at random. We therefore applied multiple imputation when estimating the multiple logistic regressions using STATA 15.0. We filled missing values of the control variables using multivariate normal regressions. The number of imputations was five. To accommodate the interaction effects in the imputation, we generated and registered interaction terms as passive variables that are functions of imputed variables. The sample size for the multiple logistic regressions with imputation was 5,160. When reporting the descriptive statistics, we excluded the 571 cases with missing data, leaving a sample of 4,589.

## **Results**

### ***Socio-demographics of the whole sample and subsamples***

Table 1 reports the descriptive statistics on measures of psychological distress, self-rated physical health, family functioning, individual demographic characteristics and socio-economic status, and family characteristics for the whole sample, the high HSCL subsample, and the low HSCL subsample, respectively. Compared with the low HSCL subsample, the high HSCL subsample (who are more psychologically distressed) reported significantly worse physical health and lower family functioning. On the demographic measures, the high HSCL subsample are older, more likely to be women, less likely to be married, and more likely to be separated, divorced, or widowed. Moreover, 48% of the high HSCL subsample are first-generation immigrants, as compared to 38% of the low HSCL subsample. The high HSCL subsample are also more disadvantaged socio-economically, with a lower level of education, less likelihood of being currently employed, and lower family income. About 60% of the high HSCL subsample, compared to about 40% of the low HSCL subsample, live in public housing.

[TABLE 1 ABOUT HERE]

### ***Sources of help sought for mental health problems and the role of family***

Where do Chinese residents in Hong Kong turn for help when they experience emotional or mental problems? Are family members the source of help sought the most? Table 2 displays the percentage of respondents who used each of the selected help-seeking approaches in the previous 12 months for the whole sample, the high HSCL subsample, and the low HSCL subsample, respectively. More than 50% of the high HSCL subsample and 56% of the low HSCL subsample talked to immediate family members. Yet informal help-seeking approaches, particularly talking to extended family members and friends, are the most common. Approximately 60% of the respondents reported relying on informal networks for help and support when encountering emotional or mental problems. Seeking help from mental health or medical professionals is uncommon. Still about 8% of the respondents in the high HSCL subsample sought help from mental health professionals and 6% sought help from general health services. The high HSCL subsample are also more likely to seek help from alternative services than the low HSCL subsample (19% versus 8%); about 11% of the high HSCL subsample requested help from community organizations in the previous 12 months.

[TABLE 2 ABOUT HERE]

### ***General family functioning and immigration generational status***

Who are more likely to rely on family members for help and support for emotional or mental problems? What family characteristics are associated with being the source of help sought? And how do the associations vary across different generations of immigrants? Table 3 reports the multiple logistic regression models estimated on seeking help from immediate family members in the previous 12 months for the whole sample and the high HSCL subsample. For the whole sample, women and people who have tertiary education are more likely to seek help from immediate family members, whereas those who never married or are separated/divorced/widowed and who reside in private housing are less likely to seek help from

immediate family members. For the high HSCL subsample, respondents who are separated, divorced, or widowed and who reside in private housing are significantly less likely to seek help from immediate family members, but females are more likely to talk to immediate family members about emotional or mental problems. Family functioning is positive and significant in Model 1 for both the whole sample and the high HSCL subsample. However, when the interaction terms between family functioning and immigration generational status are included in Model 2, the odds ratio on second-generation immigrants drops from 0.990 (not significant) to 0.168 ( $p < 0.01$ ), whereas the positive association between family functioning and seeking help from immediate family members is significantly stronger for second-generation immigrants than for natives among the whole sample. The results indicate that, while on average second-generation immigrants are less likely to seek help from immediate family members than natives, those reporting higher levels of family functioning are significantly more likely to do so.

[TABLE 3 ABOUT HERE]

How does family operate as a risk or protective factor in relation to other types of help sought? In Table 4, we present results from the multiple logistic regression models estimated on seeking help for emotional or mental problems from other sources in the previous 12 months for the whole sample and the high HSCL subsample. A higher score on family functioning is associated with a lower probability of seeking help from general health professionals and alternative services for the whole sample.

[TABLE 4 ABOUT HERE]

### ***General family functioning and barriers to seeking professional help***

What are the barriers that people perceive when they attempt to access professional mental health services in Hong Kong? Table 5 reports the perceived structural and cultural barriers to

seeking professional help for emotional or mental problems for the whole sample and the two subsamples. For the whole sample, the most frequently reported barrier is lack of perceived need. Nearly half of the respondents believe that the problem will go away by itself and more than half prefer to handle the problem in another way. Compared with the low HSCL subsample, respondents in the high HSCL subsample are significantly more likely to report concerns about accessibility and affordability of professional services: 16% of the high HSCL subsample are unsure about where to go or who to see, 31% worry about the cost of treatment, and 25% are concerned about the time commitment, as compared to 13%, 23%, and 21%, respectively, of the low HSCL subsample. The cultural barriers of lack of trust and embarrassment or stigma are also significantly more prominent among the high HSCL subsample than the low HSCL subsample: 20% of the high HSCL subsample (versus 14% of the low HSCL subsample) do not believe that professional treatment would help, and 18% of the high HSCL subsample (versus 10% of the low HSCL subsample) are concerned about other people's attitudes towards their receiving professional treatment.

[TABLE 5 ABOUT HERE]

How is family functioning associated with the perceived structural or cultural barriers to seeking help from professional means? In Table 6, we report the multiple logistic regressions predicting the associations between family functioning and perceived barriers to seeking professional help for the whole sample and the high HSCL subsample. Respondents with higher levels of general family functioning are more likely to express concerns about the affordability of professional treatment, more likely to indicate a lack of perceived need to seek professional help, yet less likely to indicate a lack of trust in professional services.

[TABLE 6 ABOUT HERE]

Two other issues deserve attention according to the results reported in Table 6. First, respondents with higher HSCL psychological distress tend to perceive stronger barriers to

seeking professional help for mental health problems—both structural and cultural. They are more likely to express concerns about accessibility and affordability of professional treatment. They also report higher levels of lack of trust and embarrassment or stigma when considering seeking help from mental health professionals. The notable finding in Table 6 is that second-generation immigrants are more likely to report both structural and cultural barriers to seeking professional help than natives. The odds ratios are significant and range from 1.314 on accessibility to 1.430 on embarrassment or stigma; the only exception is that the perceived cultural barrier of lack of trust in professional services is not statistically significant. The differences between second-generation immigrants and first-generation immigrants are also significant on affordability, lack of perceived need, and lack of trust, but not on accessibility or embarrassment or stigma.

We further estimated the multiple logistic regressions predicting the associations between family functioning and perceived barriers to seeking professional help for the high HSCL subsample, controlling for psychological distress, physical health, socio-demographic characteristics, and family characteristics. The McMaster general family functioning measure does not appear to be a strong or significant predictor for most perceived structural and cultural barriers to seeking professional help among the high HSCL subsample, except that respondents with higher levels of general family functioning are significantly less likely to indicate a lack of trust in professional services. The results are reported in Table 7.

[TABLE 7 ABOUT HERE]

## **Conclusion and Discussion**

The new information we gathered in the third wave of HKPSSD provides a detailed description of the patterns of help seeking and barriers to service use for emotional or mental problems among the Chinese adult population residing in Hong Kong. The special emphasis on family

enables us to better understand how family functioning, together with other individual and family demographic and socio-economic characteristics, is associated with individual mental health help-seeking behaviors and perceived structural and cultural barriers to professional service use. Profiting from the particular emphasis on family in the HKPSSD, this study considers the family context and investigates a series of questions concerning mental health and help seeking. The findings have implications for future policy decisions and innovative practice interventions that aim to reduce existing barriers and enhance the quality of mental health and family services.

In terms of the alternative resource theory, our results demonstrate that family is still the primary source of help sought for emotional or mental problems among Chinese residents in Hong Kong. Stronger family functioning is particularly significant for second-generation immigrants when they consider seeking help from immediate family members for their emotional or mental problems. Although second-generation immigrants on average report themselves to be less likely to seek help from immediate family members, those with higher levels of family functioning are significantly more likely to do so. Women are more inclined to rely on immediate family members when encountering emotional or mental problems, whereas respondents who are separated, divorced, or widowed are less likely to seek help from immediate family members.

In addition to immediate family members, informal networks, particularly extended family members and friends, are also important sources of help sought for dealing with emotional or mental problems. Seeking help from mental health professionals is uncommon, and community organizations are only slightly better utilized than other alternative service providers. Stronger family functioning is found to be significantly associated with a lower probability of seeking help from general health professionals and alternative services for the whole sample.

Lack of perceived need is the most frequently reported cultural barrier to seeking professional help among both high HSCL and low HSCL subsamples. From the perspective of the barrier theory, what is particularly worrisome is that, compared with the low HSCL subsample, the high HSCL subsample reported more concerns about accessibility and affordability of professional services, and perceive greater cultural barriers of lack of trust and embarrassment or stigma, even after controlling for health status, demographic, socio-economic, and family characteristics. Stronger family functioning is found to be associated with greater concerns about the affordability of professional treatment and a higher likelihood of reporting a lack of perceived need, but also with a lower likelihood of indicating a lack of trust of professional services. The results indicate that while a well-functioning family still serves as the primary source of help sought for mental health problems, such a family contributes to certain reported structural and cultural barriers to seeking help from professional sources. Trust in professional services, however, does not diminish along with stronger family functioning. Although dissonance is commonly assumed to exist between Chinese traditional cultural values and modern mental health treatment approaches and may undermine the credibility of mental health professionals (Kung, 2004), the findings of our study suggest that while Chinese residents in Hong Kong are still greatly influenced by Confucian values that emphasize the central role of family in caregiving, they have also embraced certain Western cultural beliefs and have a high regard for professional services, although they rarely utilize them. Nonetheless, such findings encourage us to consider providing mental health treatments and services in conjunction with appropriate family education and intervention programs in the Hong Kong context.

To summarize, the research enables us to better understand the basis of choices regarding help seeking and service use for mental health problems, taking into account the family context. Insight into the associations between general family functioning and mental

health help seeking is useful in the development of mental health treatments that integrate family intervention and individual counselling, and in broadening family services to encompass mental health treatments. Family services and interventions for those with mental illness are crucial in Chinese societies (Pearson, 1995; Yip, 2005). The findings indicate that family can serve as an accessible and effective facilitator of mental illness prevention and service integration, but appropriate family support and service must be better incorporated into mental health treatment. Based on our findings and those from other studies, we suggest that mental health services should be provided according to the clients' differential family circumstances, as illustrated in Figure 1.

[FIGURE 1 ABOUT HERE]

For individuals coming from strongly functioning families, family members may be invited to participate in the mental health treatment process. Existing research has already indicated that participation of family member is associated with positive treatment results for patients with bipolar disorder (Miklowitz, 2008; Rea et al., 2003). On the other hand, we also need to be aware that stronger family functioning can also be a prohibiting factor that reduces the probability of individuals seeking help from mental health professionals, medical professionals, and alternative services (Ta et al., 2010; Villatoro et al., 2014). In such circumstances, family education programs on mental health are necessary to improve family members' awareness of mental health issues and appropriate services, and encourage them to seek necessary help when needed. Working with families can decrease barriers to service use and therefore increase the chances of early detection of mental disorders (Lindsey et al., 2010).

As Figure 1 shows, for individuals coming from weakly functioning families, interventions aimed at strengthening family functioning and enhancing family support should be provided along with mental health education and treatment. Such an approach could be particularly meaningful for second-generation immigrants, given that strong family functioning



is a significant factor when choosing to seek help from immediate family members. Yet for those clients who are not likely to have strong support from immediate family members (for example, those who are separated, divorced, or widowed), support from other social networks, such as extended family members, friends, neighbors, or even hometown fellows, could be mobilized and integrated into the mental health education and treatment programs.

In essence, our research highlights the importance of family in mental health help seeking and the necessity of integrating the family and mental health services. As we conclude, limitations of the present study should be noted. The new information we gathered in the third wave of the HKPSSD provides a detailed description of the patterns of help seeking and barriers to service use in Hong Kong. The special emphasis on family enables us to better understand how family structure and dynamics are associated with individual mental health help-seeking behaviors. Yet all the measures used in the analysis are based on self-reported data. Multi-informant assessments should be employed in future studies to improve the validity of the assessments and reduce the potential common-method variance. The longitudinal design of the HKPSSD is also underused in the present study because the key measures on which we focused were only administered in the third wave of the survey. An innovative use of the longitudinal data from future waves of HKPSSD could help us avoid the pitfall of drawing causal inferences based on cross-sectional data that are inherently less suitable than true longitudinal data. We would then gain more convincing evidence that is critical to the sustainability, as well as the innovative development, of mental health and family service provision in Hong Kong, China, and across the world.

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**Table 1. Descriptive Statistics of the Whole Sample and the Subsamples**

	Whole sample	High HSCL subsample	Low HSCL subsample	T-value/ $\chi^2$
<b>HSCL psychological distress (10-40)</b>	11.430 (0.050)	19.372 (0.255)	10.783 (0.024)	91.491***
<b>Self-rated physical health (1-5)</b>	2.884 (0.015)	2.477 (0.060)	2.917 (0.015)	-10.891***
<b>McMaster family functioning (12-48)</b>	35.778 (0.103)	34.071 (0.285)	35.917 (0.107)	-7.760***
<b>Demographic characteristics</b>				
Age (years)	46.425 (0.287)	53.159 (1.088)	45.877 (0.291)	7.426***
Gender (female, %)	54.158	62.652	53.467	12.403***
Marital status (%)				
Married	58.586	47.704	59.472	
Never married	30.553	28.168	30.747	70.460***
Separated/divorced /widowed	10.861	24.128	9.781	
Immigration generational status (%)				
Natives	23.975	17.435	24.508	
Second generation immigrants	37.555	34.564	37.798	18.480***
First generation immigrants	38.470	48.001	37.694	
<b>Socio-economic status</b>				
Education level (%)				
Primary or below	28.213	47.259	26.662	
Lower secondary	18.163	16.080	18.333	64.963***
Upper secondary	34.154	22.445	35.107	
Tertiary	19.471	14.216	19.898	
Occupation status (%)				
Professional/managerial occupation	16.750	10.199	17.283	
Non-professional/non-managerial occupation	42.278	30.603	43.229	37.882***
Not working	40.973	59.199	39.488	
<b>Family characteristics</b>				
Family income (in HKD)	27488 (552.837)	18601 (1209.259)	28212 (577.432)	-7.375***
Ln (family income)	9.697 (0.031)	8.703 (0.131)	9.778 (0.030)	-12.469***
Housing type (%)				
Public	42.378	60.688	40.887	
Subsidized	8.948	6.140	9.177	63.986***
Private	48.674	33.172	49.936	
Household size	3.251 (0.039)	2.776 (0.087)	3.290 (0.041)	-7.142***
<b>Sample N</b>	4589	369	4220	4589

Notes:

Data are weighted. Clustering effect is adjusted at household level.

Means or percentages are reported. Robust standard errors are in parentheses.

The comparison for t-value/ $\chi^2$  is between the high HSCL subsample and the low HSCL subsample.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 2. Sources of Help Sought in the Previous 12 Months of the Whole Sample and the Subsamples**

	Whole sample	High HSCL subsample	Low HSCL subsample	$\chi^2$
<b>Immediate family members</b>	<b>55.564</b>	<b>50.853</b>	<b>55.947</b>	<b>1.024</b>
<b>Informal networks</b>	<b>60.521</b>	<b>63.341</b>	<b>60.291</b>	<b>7.942**</b>
Extended family members or friends	57.865	60.246	57.671	1.742
Neighbors or hometown fellows	17.626	23.917	17.113	12.642***
Colleagues	16.623	18.378	16.480	1.254
<b>Mental health professionals</b>	<b>1.686</b>	<b>7.590</b>	<b>1.205</b>	<b>91.825***</b>
<b>General health professionals</b>	<b>1.340</b>	<b>5.947</b>	<b>0.965</b>	<b>51.993***</b>
<b>Alternative services</b>	<b>8.927</b>	<b>19.354</b>	<b>8.078</b>	<b>54.942***</b>
Community organizations	2.671	10.593	2.026	85.382***
Government organizations	1.180	4.219	0.932	42.685***
Religious organizations	2.602	4.742	2.428	14.268***
Spiritual advisors or folk healers	0.978	0.846	0.989	0.126
Hotlines	1.011	1.831	0.944	2.892*
Forums or chatrooms on the Internet	2.956	5.430	2.755	1.820
<b>Sample N</b>	<b>4589</b>	<b>369</b>	<b>4220</b>	<b>4589</b>

*Notes:*

*Data are weighted. Clustering effect is adjusted at household level. Percentages are reported.*

*The comparison for  $\chi^2$  is between the high HSCL subsample and the low HSCL subsample.*

*\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .*



**Table 3. Multiple Logistic Regression Models Predicting Seeking Help from Immediate Family Members in the Previous 12 Months for the Whole Sample and the High HSCL Subsample**

	Whole sample		High HSCL subsample	
	Model 1	Model 2	Model 1	Model 2
<b>HSCL psychological distress</b>	1.011 [0.989,1.034]	1.011 [0.989,1.034]	1.162*** [1.095,1.234]	1.162*** [1.094,1.235]
<b>Self-rated physical health</b>	0.976 [0.890,1.070]	0.976 [0.890,1.069]	0.990 [0.776,1.262]	0.994 [0.779,1.270]
<b>McMaster family functioning</b>	1.031*** [1.014,1.048]	1.006 [0.975,1.037]	1.090*** [1.041,1.142]	1.015 [0.883,1.165]
<b>Demographic characteristics</b>				
Age	1.005+ [0.999,1.012]	1.005+ [0.999,1.012]	1.018+ [0.998,1.037]	1.016 [0.996,1.036]
Gender (female)	1.499*** [1.335,1.683]	1.501*** [1.336,1.685]	2.488*** [1.554,3.982]	2.558*** [1.586,4.126]
Marital status (ref. married)				
Never married	0.540*** [0.443,0.660]	0.539*** [0.442,0.658]	0.635 [0.308,1.309]	0.630 [0.306,1.299]
Separated/divorced/widowed	0.621*** [0.505,0.764]	0.622*** [0.505,0.765]	0.422** [0.229,0.780]	0.443** [0.239,0.819]
Immigration generational status (ref. natives)				
Second gen immigrants	0.990 [0.826,1.185]	0.168** [0.043,0.651]	1.138 [0.544,2.382]	0.014 [0.000,7.862]
First gen immigrants	0.997 [0.809,1.230]	0.566 [0.133,2.403]	0.735 [0.327,1.652]	0.105 [0.000,22.631]
<b>Socio-economic status</b>				
Education level (ref. primary or below)				
Lower secondary	1.060 [0.859,1.308]	1.055 [0.853,1.303]	1.831+ [0.891,3.760]	1.707 [0.809,3.601]
Upper secondary	1.152 [0.936,1.419]	1.151 [0.934,1.419]	1.634 [0.810,3.295]	1.616 [0.804,3.246]
Tertiary	1.472** [1.123,1.930]	1.470** [1.122,1.927]	1.993 [0.814,4.883]	1.935 [0.786,4.763]
Occupation status (ref. professional/managerial occupation)				
Non-professional /non-managerial occupation	1.146 [0.923,1.423]	1.165 [0.938,1.445]	1.700 [0.565,5.116]	1.980 [0.638,6.143]
Not working	1.024 [0.813,1.290]	1.042 [0.827,1.313]	1.343 [0.433,4.166]	1.619 [0.502,5.219]
<b>Family characteristics</b>				
Ln (family income)	1.006 [0.952,1.063]	1.005 [0.951,1.062]	1.130+ [0.986,1.295]	1.130+ [0.987,1.295]
Housing type (ref. public)				
Subsidized	1.007 [0.753,1.345]	1.016 [0.761,1.356]	0.703 [0.268,1.847]	0.695 [0.264,1.825]
Private	0.833* [0.698,0.993]	0.832* [0.698,0.992]	0.520* [0.313,0.863]	0.519* [0.311,0.867]
Household size	1.013 [0.945,1.086]	1.015 [0.947,1.087]	0.978 [0.785,1.220]	0.968 [0.777,1.207]
<b>Interactions</b>				
McMaster family functioning x Second generation immigrants		1.051* [1.012,1.092]		1.137 [0.944,1.369]
McMaster family functioning x First generation immigrants		1.016 [0.976,1.058]		1.058 [0.904,1.239]
<b>Constant</b>	0.200** [0.070,0.573]	0.475 [0.116,1.949]	0.000*** [0.000,0.005]	0.002* [0.000,0.550]
<b>F statistics</b>	F (18, 638502.3) = 9.39, p < .0000	F (20, 200402.9) = 8.80, p < .0000	F (18, 131945.6) = 3.50, p < .0000	F (20, 31962.4) = 3.09, p < .0000
<b>Sample N</b>	5160	5160	485	485

Notes:

Data are weighted. Clustering effect is adjusted at household level. Missing data are imputed.

Odds ratios are reported. 95% confidence intervals are in brackets.

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 4. Multiple Logistic Regression Models Predicting Seeking Help from Other Sources in the Previous 12 Months for the Whole Sample and the High HSCL Subsample**

	Whole sample				High HSCL subsample			
	Informal networks	Mental health professionals	General health professionals	Alternative services	Informal networks	Mental health professionals	General health professionals	Alternative services
<b>HSCL psychological distress</b>	1.052***	1.169***	1.129***	1.103***	1.139***	1.173***	1.136*	1.127***
	[1.026,1.078]	[1.117,1.224]	[1.064,1.198]	[1.069,1.138]	[1.071,1.211]	[1.070,1.286]	[1.014,1.272]	[1.062,1.195]
<b>Self-rated physical health</b>	1.107*	1.018	1.037	1.009	1.353*	1.028	0.619	1.330+
	[1.012,1.212]	[0.755,1.373]	[0.696,1.544]	[0.857,1.188]	[1.026,1.783]	[0.643,1.645]	[0.325,1.180]	[0.969,1.825]
<b>McMaster family functioning</b>	1.004	0.944+	0.931*	0.946***	1.032	0.926+	0.932	0.967
	[0.987,1.021]	[0.884,1.009]	[0.879,0.985]	[0.918,0.975]	[0.987,1.080]	[0.856,1.000]	[0.837,1.037]	[0.916,1.020]
<b>Demographic characteristics</b>								
Age	0.998	0.992	0.988	0.992	0.996	0.978	0.986	0.983
	[0.992,1.004]	[0.969,1.015]	[0.964,1.013]	[0.982,1.002]	[0.977,1.015]	[0.947,1.011]	[0.948,1.026]	[0.962,1.005]
Gender (female)	1.425***	1.298	1.558	1.050	2.443***	1.748	2.901+	1.241
	[1.268,1.603]	[0.742,2.271]	[0.841,2.887]	[0.838,1.314]	[1.540,3.878]	[0.667,4.585]	[0.971,8.670]	[0.648,2.378]
Marital status (ref. married)								
Never married	0.782*	0.738	0.675	1.006	0.546+	0.302	0.325	0.808
	[0.645,0.949]	[0.306,1.784]	[0.266,1.713]	[0.708,1.429]	[0.266,1.119]	[0.069,1.319]	[0.037,2.847]	[0.330,1.975]
Separated/divorced/widowed	0.780*	0.998	0.957	1.062	0.477*	1.055	0.375	0.998
	[0.633,0.959]	[0.479,2.083]	[0.431,2.127]	[0.746,1.512]	[0.271,0.842]	[0.284,3.915]	[0.087,1.613]	[0.456,2.186]
Immigration generational status (ref. natives)								
Second generation immigrants	0.817*	1.545	1.271	0.848	0.669	4.908+	4.969	0.459+
	[0.678,0.983]	[0.662,3.604]	[0.560,2.880]	[0.616,1.166]	[0.333,1.345]	[0.815,29.543]	[0.391,63.075]	[0.187,1.125]
First generation immigrants	0.848	1.549	0.724	1.002	0.621	2.637	0.583	0.731
	[0.683,1.052]	[0.560,4.285]	[0.251,2.087]	[0.702,1.430]	[0.294,1.313]	[0.505,13.771]	[0.040,8.484]	[0.258,2.068]
<b>Socio-economic status</b>								
Education level (ref. primary or below)								
Lower secondary	0.968	2.012	1.369	1.304	1.387	3.699*	2.143	0.980
	[0.784,1.194]	[0.863,4.691]	[0.557,3.361]	[0.875,1.942]	[0.669,2.877]	[1.293,10.576]	[0.506,9.074]	[0.407,2.358]
Upper secondary	1.180	1.879	0.960	1.680**	0.949	1.586	0.372	0.892
	[0.961,1.450]	[0.737,4.788]	[0.373,2.472]	[1.165,2.423]	[0.460,1.958]	[0.399,6.311]	[0.056,2.467]	[0.376,2.117]
Tertiary	1.484**	1.509	2.000	1.594*	1.082	0.493	-	1.533
	[1.130,1.949]	[0.473,4.813]	[0.675,5.924]	[1.033,2.458]	[0.412,2.841]	[0.044,5.575]	-	[0.496,4.737]
Occupation status (ref. professional/managerial occupation)								
Non-professional /non-managerial occupation	1.419**	1.366	1.288	0.822	0.853	0.253	-	2.087
	[1.140,1.765]	[0.535,3.490]	[0.401,4.137]	[0.576,1.173]	[0.302,2.409]	[0.028,2.258]	-	[0.530,8.215]

Not working	1.068 [0.846,1.348]	1.978 [0.735,5.326]	2.816 [0.780,10.166]	1.118 [0.770,1.623]	0.391+ [0.129,1.181]	0.661 [0.088,4.956]	- -	2.603 [0.648,10.451]
<b>Family characteristics</b>								
Ln (family income)	1.059* [1.001,1.120]	1.058 [0.871,1.283]	0.969 [0.785,1.195]	0.952 [0.876,1.034]	1.156* [1.008,1.325]	1.203 [0.883,1.638]	1.081 [0.747,1.564]	0.876 [0.730,1.050]
Housing type (ref. public)								
Subsidized	1.035 [0.788,1.360]	0.335+ [0.108,1.037]	0.252* [0.072,0.880]	0.536* [0.322,0.893]	0.616 [0.238,1.596]	0.667 [0.113,3.953]	0.509 [0.066,3.958]	0.760 [0.197,2.936]
Private	0.860+ [0.719,1.028]	0.509+ [0.248,1.046]	0.514+ [0.260,1.019]	1.001 [0.746,1.343]	0.579* [0.350,0.957]	0.599 [0.154,2.320]	1.229 [0.408,3.700]	1.648 [0.820,3.313]
Household size	0.919* [0.860,0.983]	0.974 [0.796,1.191]	0.927 [0.733,1.171]	0.931 [0.834,1.038]	0.798+ [0.629,1.013]	0.786 [0.534,1.157]	0.872 [0.580,1.310]	0.808 [0.617,1.058]
<b>Constant</b>	0.293* [0.102,0.840]	0.006** [0.000,0.276]	0.055 [0.001,3.594]	0.406 [0.074,2.215]	0.026* [0.001,0.538]	0.019 [0.000,4.522]	0.000*** [0.000,0.001]	0.184 [0.005,6.357]
<b>F statistics</b>	F (18, 424357.2) = 6.31, p < .0000	F (18, 3.4e+10) = 5.03, p < .0000	F (18, 6.4e+07) = 3.88, p < .0000	F (18, 8.8e+06) = 5.77, p < .0000	F (18, 152195.2) = 3.42, p < .0000	F (18, 2.9e+10) = 2.57, p < .0003	F (17, 2.8e+09) = 47.00, p < .0000	F (18, 1.5e+06) = 2.99, p < .0000
<b>Sample N<sup>a</sup></b>	5160	4626	4626	5160	485	375	320	485

Notes:

Data are weighted. Clustering effect is adjusted at household level. Missing data are imputed.

Odds ratios are reported. 95% confidence intervals in brackets. +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

<sup>a</sup> Because of the problem of separation, a number of cases are dropped out of the models on mental health professional and general health professionals.

**Table 5. Perceived Barriers to Seeking Professional Help of the Whole Sample and the Subsamples**

	<b>Whole sample</b>	<b>High HSCL subsample</b>	<b>Low HSCL subsample</b>	$\chi^2$
<b>Structural barriers</b>				
Accessibility	18.041	25.378	17.443	30.052***
<i>I am unsure about where to go or who to see.</i>	13.331	16.393	13.082	6.552*
<i>There is no professional service provider within my area.</i>	6.946	13.068	6.448	33.206***
Affordability	33.967	44.486	33.110	33.094***
<i>I am concerned about how much money it would cost.</i>	23.348	31.051	22.721	19.748***
<i>I think it would take too much time.</i>	21.179	25.486	20.828	9.877**
<b>Cultural barriers</b>				
Lack of perceived need	59.319	53.702	59.777	0.164
<i>The problem will go away by itself.</i>	47.495	38.852	48.198	11.029**
<i>I would prefer to handle the problem in another way.</i>	52.003	45.619	52.523	3.706
Lack of trust	18.305	26.707	17.621	35.828***
<i>I do not think professional treatment would help.</i>	14.211	19.912	13.747	17.662***
<i>I fear being hospitalized against my will.</i>	6.240	13.363	5.660	42.517***
Embarrassment or stigma	14.288	24.247	13.477	50.031***
<i>I am concerned about what people would think if they found out I was in treatment.</i>	10.653	18.229	10.036	33.941***
<i>I do not feel comfortable discussing my problems with a professional.</i>	6.263	12.127	5.786	35.643***
<b>Sample N</b>	4589	369	4220	4589

Notes:

Data are weighted. Clustering effect is adjusted at household level. Percentages are reported.

The comparison for  $\chi^2$  is between the high HSCL subsample and the low HSCL subsample.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 6. Multiple Logistic Regression Models Predicting Associations between Family Functioning and Perceived Barriers to Seeking Professional Help for the Whole Sample**

	Structural barriers			Cultural barriers	
	Accessibility	Affordability	Lack of perceived need	Lack of trust	Embarrassment or stigma
<b>HSCL psychological distress</b>	1.045*** [1.019,1.071]	1.063*** [1.037,1.090]	1.002 [0.978,1.028]	1.066*** [1.038,1.094]	1.093*** [1.061,1.127]
<b>Self-rated physical health</b>	0.939 [0.839,1.049]	0.939 [0.854,1.033]	0.813*** [0.740,0.894]	1.076 [0.960,1.206]	1.114 [0.978,1.268]
<b>McMaster family functioning</b>	0.999 [0.980,1.019]	1.035*** [1.018,1.053]	1.074*** [1.055,1.093]	0.952*** [0.934,0.970]	1.017 [0.995,1.039]
<b>Demographic characteristics</b>					
Age	1.003 [0.996,1.011]	1.001 [0.994,1.007]	0.999 [0.993,1.005]	1.003 [0.995,1.011]	1.001 [0.993,1.010]
Gender (female)	1.323*** [1.126,1.555]	0.999 [0.884,1.128]	0.925 [0.824,1.039]	1.039 [0.885,1.220]	1.098 [0.919,1.312]
Marital status (ref. married)					
Never married	0.872 [0.670,1.135]	0.869 [0.702,1.076]	0.676*** [0.546,0.836]	0.930 [0.723,1.196]	0.796 [0.596,1.064]
Separated/divorced/widowed	1.036 [0.801,1.340]	1.081 [0.864,1.352]	1.073 [0.866,1.330]	1.063 [0.811,1.395]	0.750+ [0.544,1.033]
Immigration generational status (ref. natives)					
Second generation immigrants	1.314* [1.031,1.673]	1.369** [1.124,1.666]	1.352** [1.118,1.634]	1.123 [0.890,1.417]	1.430* [1.085,1.886]
First generation immigrants	1.113 [0.845,1.465]	1.088 [0.860,1.376]	1.069 [0.856,1.334]	0.881 [0.670,1.160]	1.236 [0.906,1.688]
<b>Socio-economic status</b>					
Education level (ref. primary or below)					
Lower secondary	1.106 [0.852,1.436]	1.033 [0.826,1.293]	1.275* [1.029,1.581]	0.986 [0.746,1.302]	1.274+ [0.967,1.678]
Upper secondary	1.086 [0.834,1.413]	1.269* [1.018,1.582]	1.346** [1.091,1.660]	1.144 [0.880,1.487]	1.178 [0.891,1.557]
Tertiary	0.829 [0.585,1.174]	1.055 [0.795,1.399]	1.605*** [1.223,2.106]	0.959 [0.680,1.354]	1.417* [1.007,1.993]
Occupation status (ref. professional/managerial occupation)					
Non-professional /non-managerial occupation	1.139 [0.840,1.545]	0.839 [0.672,1.049]	0.837 [0.666,1.052]	0.949 [0.717,1.254]	1.606** [1.183,2.181]
Not working	1.018 [0.744,1.393]	0.755* [0.597,0.956]	0.577*** [0.456,0.731]	0.896 [0.665,1.209]	1.344+ [0.964,1.873]

<b>Family characteristics</b>					
Ln (family income)	1.050 [0.977,1.128]	1.036 [0.972,1.104]	0.975 [0.919,1.035]	1.079* [1.004,1.160]	1.055 [0.970,1.148]
Housing type (ref. public)					
Subsidized	0.791 [0.575,1.089]	0.960 [0.715,1.288]	1.763*** [1.289,2.410]	0.776 [0.558,1.079]	0.866 [0.586,1.278]
Private	0.873 [0.705,1.081]	1.081 [0.897,1.302]	0.979 [0.808,1.185]	0.837 [0.675,1.038]	1.097 [0.864,1.392]
Household size	0.996 [0.917,1.081]	1.040 [0.967,1.118]	1.015 [0.945,1.090]	1.010 [0.936,1.089]	0.970 [0.890,1.058]
<b>Constant</b>	0.059*** [0.016,0.215]	0.042*** [0.014,0.127]	0.206** [0.067,0.632]	0.201* [0.053,0.760]	0.006*** [0.001,0.029]
<b>F statistics</b>	F (18, 6.8e+06) = 3.27, p < .0000	F (18, 1.9e+06) = 4.32, p < .0000	F (18, 374050.6) = 12.34, p < .0000	F (18, 2.1e+06) = 3.78, p < .0000	F (18, 2.0e+07) = 3.57, p < .0000
<b>Sample N</b>	5160	5160	5160	5160	5160

Notes:

Data are weighted. Clustering effect is adjusted at household level. Missing data are imputed.

Odds ratios are reported. 95% confidence intervals in brackets. +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

**Table 7. Multiple Logistic Regression Models Predicting Associations between Family Functioning and Perceived Barriers to Seeking Professional Help for the High HSCL Subsample**

	Structural barriers			Cultural barriers	
	Accessibility	Affordability	Refusal to recognize need	Lack of trust	Embarrassment or stigma
<b>HSCL Psychological distress</b>	1.041+	1.078**	1.059*	1.059*	1.079**
	[0.994,1.091]	[1.027,1.133]	[1.006,1.116]	[1.011,1.109]	[1.028,1.132]
<b>Self-rated physical health</b>	0.995	0.983	0.800+	1.192	1.137
	[0.727,1.362]	[0.764,1.265]	[0.616,1.038]	[0.877,1.621]	[0.828,1.562]
<b>McMaster family functioning</b>	0.979	0.982	1.003	0.938*	0.942+
	[0.927,1.034]	[0.935,1.030]	[0.955,1.053]	[0.891,0.986]	[0.887,1.001]
<b>Demographic characteristics</b>					
Age	0.987	0.986	0.988	0.995	0.982
	[0.966,1.008]	[0.968,1.004]	[0.970,1.007]	[0.974,1.016]	[0.962,1.004]
Gender (female)	1.145	1.294	1.286	1.264	1.224
	[0.662,1.981]	[0.802,2.088]	[0.816,2.029]	[0.749,2.132]	[0.693,2.163]
Marital status (ref. married)					
Never married	0.562	0.585	0.252***	1.039	0.843
	[0.246,1.285]	[0.285,1.198]	[0.120,0.530]	[0.465,2.321]	[0.363,1.958]
Separated/divorced/widowed	1.127	0.969	0.854	0.650	0.917
	[0.590,2.153]	[0.549,1.710]	[0.477,1.529]	[0.339,1.243]	[0.448,1.877]
Immigration generational status (ref. natives)					
Second generation immigrants	0.968	1.243	1.046	1.260	1.205
	[0.444,2.112]	[0.631,2.447]	[0.532,2.057]	[0.566,2.806]	[0.506,2.870]
First generation immigrants	0.792	0.758	0.482+	0.977	1.022
	[0.346,1.811]	[0.351,1.638]	[0.229,1.016]	[0.383,2.492]	[0.376,2.778]
<b>Socioeconomic status</b>					
Education level (ref. primary or below)					
Lower secondary	0.854	0.764	1.854+	1.084	0.703
	[0.385,1.894]	[0.375,1.556]	[0.953,3.606]	[0.513,2.291]	[0.323,1.532]
Upper secondary	0.640	0.917	1.200	0.969	0.450+
	[0.273,1.501]	[0.459,1.829]	[0.621,2.318]	[0.468,2.007]	[0.194,1.042]
Tertiary	1.056	1.230	3.176*	1.637	1.830
	[0.391,2.858]	[0.508,2.976]	[1.272,7.926]	[0.665,4.028]	[0.693,4.833]
Occupation status (ref. professional/managerial occupation)					
Non-professional /non-managerial occupation	1.543	1.188	1.547	2.571+	3.733+
	[0.530,4.497]	[0.453,3.117]	[0.540,4.429]	[0.839,7.878]	[0.999,13.943]
Not working	1.032	0.977	0.721	2.016	3.710+
	[0.358,2.972]	[0.373,2.564]	[0.244,2.127]	[0.646,6.284]	[0.941,14.632]

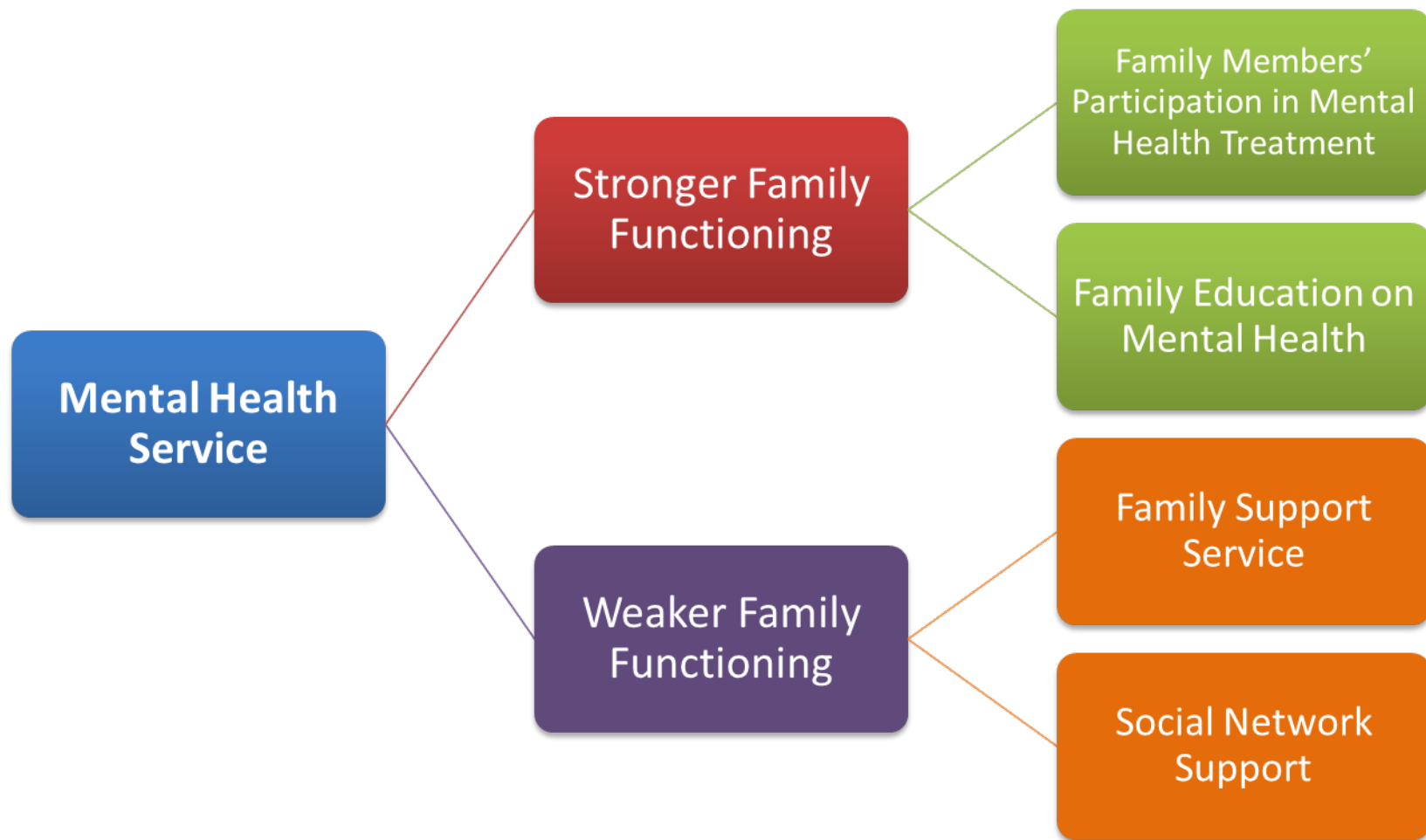
<b>Family characteristics</b>					
Ln (family income)	1.022 [0.888,1.177]	0.974 [0.853,1.112]	0.937 [0.824,1.065]	1.060 [0.930,1.207]	1.076 [0.923,1.254]
Housing type (ref. public)					
Subsidized	0.462 [0.166,1.290]	0.511 [0.223,1.171]	1.072 [0.452,2.542]	0.263* [0.075,0.922]	0.598 [0.171,2.094]
Private	0.735 [0.385,1.404]	0.800 [0.473,1.354]	0.919 [0.544,1.552]	0.667 [0.352,1.265]	0.615 [0.321,1.180]
Household size	0.934 [0.695,1.257]	0.941 [0.742,1.193]	0.866 [0.686,1.092]	0.788* [0.622,0.998]	0.995 [0.757,1.309]
<b>Constant</b>	0.684 [0.026,18.233]	1.027 [0.047,22.239]	3.066 [0.122,76.987]	0.384 [0.014,10.783]	0.151 [0.006,3.969]
<b>F statistics</b>	F (18, 894669.5) = 1.04, p < .4065	F (18, 355222.6) = 1.73, p < .0273	F (18, 184398.2) = 2.79, p < .0001	F (18, 416526.1) = 1.76, p < .0244	F (18, 498971.4) = 2.09, p < .0044
<b>Sample N</b>	485	485	485	485	485

*Notes:*

*Data are weighted. Clustering effect is adjusted at household level. Missing data are imputed.*

*Odds ratios are reported. 95% confidence intervals are in brackets. +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .*





**Figure 1. Mental Health Service Provision according to Clients' Differential Family Circumstances**