Understanding the Help-Seeking Process Among Second Generation Chinese Canadians Using the Theory of Planned Behaviour: What is the Role of Culture?

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Abstract

The underutilization of mental health services among the Chinese Canadian population is a perpetual problem. The present study examined the help-seeking process among second generation Chinese Canadians using the Theory of Planned Behaviour (TPB). The utility of the TPB was tested using both direct and indirect measures and path analyses were used. The influence of additional variables, including self-stigma, anticipated benefits and risks, and cultural variables such as Asian values, European American values, Chinese identity, Canadian identity, family connectedness and self-concealment were investigated. Two hundred and twelve second generation Chinese Canadians participated in the study. Participants had the option to complete the study questionnaire online or in paper format. Results supported the utilization and application of the TPB in understanding help-seeking intentions and highlighted the differential contribution of attitudes, subjective norms, and perceived behavioural control. The study also supported the notion that perceived behavioural control consists of two inter-related but distinct components: self-efficacy and controllability. Results highlight the importance of self-efficacy in predicting help-seeking intentions among second generation Chinese Canadians. Findings also showed that Asian values, Canadian identity, anticipated benefits and risks, self-concealment, and self-stigma play different roles in predicting attitudes, subjective norms, and perceived behavioural control in the help-seeking process. In sum, results of the present study served as an important step in further understanding the help-seeking process among second generation Chinese Canadians. Implications for research, clinical practice, and future directions are discussed.

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TABLE OF CONTENTS

Abstract ii
Acknowledgements iii
List of Tables ix
List of Figures xi

CHAPTER I: INTRODUCTION 1
Statement of Problem: Underutilization of Mental Health Services 1
Rationale and Overview of the Present Study 2
Purpose of the Study 5

CHAPTER II: REVIEW OF LITERATURE 6
Asians in China, Hong Kong, and Taiwan and Help-Seeking 6
Asian Americans in the United States and Help-Seeking 7
Chinese Canadians in Canada: First and Second Generation Chinese Canadians 9
Theories Used to Guide Help-Seeking Research 12
The Theory of Planned Behaviour 15
Measurement Issues in the TPB: Direct (Global) and Indirect (Belief-based) Measures 19
Attitudes Toward Help-Seeking 20
Attitudes Toward Seeking Help Among Ethnic Minority Cultures 22
Subjective Norms 23
Subjective Norms Among Ethnic Minority Cultures 25
Perceived Behavioural Control 27
Cultural Correlates of Help-Seeking Among Asian Americans 34
Acculturation: Values and Identity 34
Assessment and Measurement of Acculturation 36
Ethnic Identity 38
Family Connectedness 40
Self-Concealment 42
Additional Predictors: Self-Stigma 43
Anticipated Benefits and Risks 44
The Present Study 45
Hypotheses 47

CHAPTER III: METHODOLOGY 49
Participants 49
Recruitment and Administration Procedure 50

Measures 52
Demographic Questionnaire 53
Measures of TPB 53
Direct TPB Measure According to Ajzen's Guidelines 55
Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS: Mackenzie, Knox, Gekoski, & Macaulay, 2004). 57
Subjective Norms: Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000). 58
Perceived Behavioural Control: Self-Efficacy: Mental Health Efficacy – Revised (MHE-R; Sirois, 2003). 58
Perceived Behavioural Control: Multidimensional Mental Health Locus of Control – Revised (MMHLC-R form A; Wallston, Wallston, & DeVellis, 1978). 59
Intentions: Intentions to Seek Counselling Inventory – Cultural Revision (ISCI-CR; Cash, Begley, McCown, & Weise, 1975). 59
Brief Symptom Inventory 18 (BSI-18; Derogatis, 2000) 60
Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). 62
The Asian American Values Scale-Multidimensional (AAVS-M: Kim, Li, & Ng, 2005). 62
The European American Values Scale for Asian Americans - Revised (EAVS-AA-R: Hong, Kim, & Wolfe, 2005). 63
Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). 63
Family Allocentrism Scale (FAS; Lay, Fairlie, Jackson, Ricci, Eisenberg, Sato, and Melamud, 1998). 64
Self-Concealment Scale (SCS; Larson & Chastain, 1990). 65
The Disclosure Expectations Scale (DES; Vogel & Wester, 2003). 66
Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006). 66

CHAPTER IV: RESULTS 68
Overview of the Analyses 68
Data Screening and Cleaning 68
Descriptive Statistics 69
Help-Seeking Behaviours 72
Objective #1 (a) Testing the Theory of Planned Behaviour Using Ajzen's Measure 76
Path Analysis 80
Direct and indirect effects. 84
Objective #1 (b) Testing the Theory of Planned Behaviour Using IASMH 88
Path Analysis 91

Direct and indirect effects. 93
Objective #1 (c) Testing the TPB Using Questionnaires from the Help-Seeking Literature 97
Path Analysis 100
Direct and indirect effects 100
Path Analysis with modification indices 105
Objective #2 – Cultural and Psychological Predictors of Attitudes, Subjective Norms, and PBC: Overview of the Analyses 107
Descriptive Statistics 107
Correlations 109
Overview of the Regression Analyses 113
Predictors of Attitudes 113
Predictors of Subjective Norms 115
Predictors of Perceived Behavioural Control 117
Summary of Results 119

CHAPTER V: DISCUSSION 120
Help-Seeking Behaviours in Second Generation Chinese Canadians 120
Direct Measure of the TPB Model Using Ajzen's Guidelines 121
Indirect Measure of the TPB Model Using The Inventory of Attitudes Toward Seeking Mental Health Services (IASMH) 122
Indirect Measure of the TPB Model Using Questionnaires from the Help-Seeking Literature 123
Overall Use of the Theory of Planned Behaviour for Help-Seeking 124
The Effect of the Study Covariates on Help-Seeking Intentions 127
The Impact of Cultural Variables on Help-Seeking 128
The Effects of Asian Values and European Values on Help-Seeking. 128
The Effects of Ethnic Identity and Canadian Identity on Help-Seeking 131
The Effects of Family Connectedness on Help-Seeking. 132
The Effects of Self-Concealment on Help-Seeking 133
The Impact of Additional Psychological Variables on Help-Seeking 134
The Effects of Anticipated Benefits and Anticipated Risks on Help-Seeking. 134
Implications for Research and Theory 138
Implications for Clinical Outreach and Practice 139
Limitations and Future Directions for Research 142
Conclusion 144

REFERENCES 147

APPENDICES 180

Appendix A 180

Appendix B 181

Appendix C 183

Appendix D 185

Appendix E 208

List of Tables

Table Page

1 Direct and Indirect Measures: Definition of Constructs, Hypothesized Roles and Measures 30

2 TPB Measure According to Ajzen's Guidelines 56

3 Correlations for Co-variates and TPB Variables 71

4 Participant Demographic and Background Characteristics (N = 212) 73

5 Mean, Standard Deviations, and Psychometric Properties of the Subscales of Ajzen's TPB Measure Assessing Help-Seeking Intention and Behaviour 77

6 Correlations for Ajzen's TPB Variables 79

7 Decomposition of Effects from Path Analysis Examining Help-Seeking 87

8 Mean, Standard Deviations, and Psychometric Properties of the Subscales of the IASMHS Measure Assessing Help-Seeking Intentions and Behaviours 89

9 Correlations for IAMSH's TPB Variables, Intentions, and Behaviours 90

10 Decomposition of Effects from Path Analysis Examining Help-Seeking 96

11 Mean, Standard Deviations, and Psychometric Properties of the Subscales of the Help-Seeking Measures Assessing Help-Seeking Intentions and Behaviours 98

12 Correlations for Attitudes, Chinese and Canadian Stigma, Self-Efficacy, Locus of Control, Intentions, and Behaviours 99

13 Decomposition of Effects from Path Analysis Examining Help-Seeking 104

14 Mean, Standard Deviations, and Psychometric Properties of the Cultural and Psychological Predictors 108

15 Correlations for All Predictor (Cultural & Psychological) Variables (Ethnic Identity, Canadian Identity, Asian Values, European Values, Anticipated Benefits, Anticipated Risks, Self- Concealment, and Self-Stigma 112

16 Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Attitudes 114

17 Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Subjective Norms 116

18 Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Perceived Behavioural Control 118

List of Figures

Figure Page

1. Components of Ajzen's Theory of Planned Behaviour 17

2. Ajzen's TPB input path model 83

3. Ajzen's TPB model with standardized (and unstandardized) coefficients of help- seeking behaviour 85

4. IAMSH input path model 92

5. IAMSH Model with standardized (and unstandardized) coefficients of help-seeking 94

6. Input path model 101

7. Model with standardized (and unstandardized) coefficients of help-seeking behaviours 102

8. Overall model fit with additional path from Chinese Stigma to Behaviours 106

CHAPTER I: INTRODUCTION

Statement of Problem: Underutilization of Mental Health Services

Major shifts in the ethnic composition of Canada has led to an increasing discussion of multicultural mental health issues, especially concerning the organization and delivery of mental health services (Davis, 2006). The health of Canada's diverse population is of major concern to researchers, health care professionals, and policymakers. As a major immigrant-receiving country, the large number of ethnocultural communities in Canada represents an important segment of the general population. Their health is a central concern that has implications for the cost and effectiveness of Canada's health care system.

In general, non-Euro Canadians tend to use fewer mental health services (Alarcon, 2009; Vasiliadis, Lesage, Adair, & Boyer, 2005). In 2002, Statistics Canada conducted the first national survey of mental health and well-being of Canadians - the Canadian Community Health Survey: Mental Health and Well-Being (CCHS). This survey provided the first compilation of data concerning the prevalence of mental health disorders, the incidence of mental health disorders, and individual determinants (e.g., sociodemographic factors, psychological distress, self-rated health, social support, barriers) of mental health service use across Canada (Statistics Canada, 2004). With respect to sociodemographic variables, Vasiliadis, Lesage, Adair & Boyer (2005) found that country of birth and ethnic background were significant predictors of mental health service use. Furthermore, they demonstrated that ethnic status remained a significant predictor of mental health service underutilization even after accounting for attitudes toward seeking mental health services.

Asian Canadians are one of the most underserved group in the Canadian health care system (Esses & Gardner, 1996; Health Canada, 2000). Although Asians are often associated

with success in academic and career achievements, this view obscures another reality. Asians, Asian Americans, and Asian Canadians do struggle with mental illness and have an equally high, if not higher, need for appropriate mental health services. Asian American college students have been found to report higher levels of depressive symptoms than Euro-Americans, with a lifetime prevalence of major depression of as high as 17%, with 10% reported a major depression within the past year (Young, Fang, & Zisook, 2010). When they do seek help, their conditions tend to be more severe and chronic than those of other cultural backgrounds and consequently required more intensive treatment and longer hospitalization or outpatient care (Takeuchi et al., 2007). Moreover, previous research has suggested that Asian Americans students are more likely to think about suicide and attempt suicide than European American students (Kisch, Leino, & Silverman, 2005; Muehlenkamp, Gutierrez, Osman, & Barrios, 2005). A recent study found that U.S.-born Asian Americans were at higher risk for suicidal ideation than immigrant Asians (Alegria et al., 2004). Other studies show that Asian-American females have the highest suicide rates among American females in the 15 to 24 age group, and Asian-American women who are 65 or older are 10 times more likely to commit suicide than North Americans of European descent (Cheng, et al., 2010). Other common problems among the Asians include drug use, gambling, suicide, and alcoholism (Cheng, 2000).

Rationale and Overview of the Present Study

Help-seeking is the utilization of sources of support, advice, or assistance in response to illness, acute stress, specific life events, trauma, psychological disorders, or interpersonal and personal problems (Gourash, 1978). In the mental health context, helps-seeking is an adaptive coping process that is the attempt to obtain external assistance to deal with a mental

health concern (Rickwood, Thomas & Bradford, 2012). While there is a large body of research on help-seeking, spanning thirty years, few studies have focused on Asians. Furthermore, most of this research has focused on Asians living in the Unites States, a context that is culturally different and that has been found to impact on health. According to Statistics Canada (2011), the number of visible minorities in Canada is expected to be 29% to 32% by the year 2031. For those born in Canada, 47% will be second generation Canadians, whereas in 2006, it was 24%. With these staggering statistics, there is a crucial need to better understand the help-seeking process within Chinese Canadians so that we can enable their use of mental health service when needed. The current study thus seeks to explore psychological factors that underlie the help-seeking process so that more culturally-appropriate psychological interventions can be developed to influence Chinese Canadians' help-seeking intentions.

There is currently a lack of comprehensive empirically tested models within the help-seeking literature. Although the few studies on the help-seeking process of Asian Americans have provided valuable information, only a small number have applied established theoretical frameworks. Given the importance of theory-driven science, the research questions and hypotheses of the current study will be adapted by the Theory of Planned Behaviour (TPB). A review of the literature suggests that the TPB is an empirically robust and parsimonious model useful in predicting help-seeking behaviours. Furthermore, this model allows for the inclusion of additional variables (i.e., cultural variables) to account for significant variance in intentions and behaviours.

There is a small, but growing number of studies, which are exploring how the TPB needs to be modified for different cultural group. For example, Kim and Park (2009) found

that, in a sample of Asian American college students, subjective norms contributed the most variance on willingness to seek help. Therefore, it is important to consider those variables that are common across groups of individuals (e.g., by testing established models on new groups) and those that are specific to subgroups of the general population (e.g., cultural variables). It is for this reason that we must consider the types of variables that impact on minority groups, specifically Chinese Canadian groups, in relation to help-seeking attitudes and intentions over- and above those variables which are predictive of other groups (e.g., Euro-American populations).

As stated earlier, most of the literature on help-seeking is US-based. Given that there are important differences between the United States and Canada with respect to multiculturalism, and immigration (Chen, Kazanjian, & Wong, 2009), it is tantamount that research explores how ethnocultural groups in Canada engage in help-seeking. Another relevant difference between the two nations is the health care system. Canada has a universal health plan that works as a single-payer health care system that publicly funds and covers about 70% of expenditures. In contrast, the United States has a mixed public-private system whereby a reported 16.3% or an estimated 49.95 million American residents are uninsured at any one time (Todd & Sommers, 2012). This difference in coverage not only affects the access to health services, but also impacts the actual use of the health care system and the process of help-seeking. Although the exact causal relationship between willingness to seek help and the actual help-seeking behaviours is yet to be determined, findings on Chinese Canadians' attitudes toward professional help and willingness to seek help can aid us in formulating research questions about behavioural outcomes.

Purpose of the Study

The main purpose of the study was to examine the generalizability and utility of the Theory of Planned Behaviour (TPB) for second generation Chinese Canadians. This objective was conducted in three separate ways using both direct and indirect measures: (a) using Azjen's guidelines for the TPB (b) using The Inventory of Attitudes toward Seeking Mental Health Services, (c) using validated questionnaires for each construct from the help-seeking literature. Another main focus was to examine additional factors, especially cultural variables, and their impact on the TPB.

CHAPTER II: REVIEW OF LITERATURE

This chapter reviews help-seeking among Asians, Asian Americans, and Asian/Chinese Canadians and outlines the literature investigating the relationships between the constructs of the TPB model pertinent to the present study. A particular attention will be paid to additional psychological variables (e.g., anticipated benefits and risks, self-stigma), as well as cultural factors that impact these relationships in immigrants of Asian/Chinese descent. In particular, the roles of acculturation variables (i.e., values and identity), family connectedness, and self-concealment will be considered in the formulation of an explanatory model of Chinese Canadians' help-seeking behaviours for psychological difficulties.

Asians in China, Hong Kong, and Taiwan and Help-Seeking

According to a review by Rickwood, Thomas, and Bradford (2012) who examined all help-seeking publications, noted that only 18% of the articles were from a diverse range of other countries other than USA, Australia, UK, Canada, Netherlands, and New Zealand. They also reported that there were no fewer than 2% from any particular country. Therefore, what we know from studies from China, Hong Kong, and Taiwan are very limited. The history and politics in Asian countries has influenced attitudes towards mental health and has severe social stigma attached to mental illness (Chang, Tong, Shi, & Zeng, 2005).

Chen and Mak (2008) compared four cultural groups in Hong Kong and found that European Americans and Chinese Americans were more likely to seek help than Hong Kong Chinese and Mainland Chinese suggesting that greater willingness to seek help might be associated with Western influences. Previous studies conducted in China, Hong Kong, and Taiwan indicated that college students often try to resolve psychological problems on their own before seeking help from others and showed great reluctance to use mental health services

(Boey, 1999; Jiang & Wang, 2003). Chinese students across three universities in mainland China were found less likely to seek professional help for psychological problems as compared to their Western counterparts (Wang, 2013). Also, those with lower levels of Asian values held more positive attitudes and were more willingness to seek help. Studies on mental health service use in Hong Kong have consistently shown unfavourable attitudes towards seeking help and low patterns of mental health service use (Mo & Mak, 2009). Even though there is a need, less than 20% actually receive the help they need. Incompatibility between Chinese cultural values and implications of weakness and stigma of shame and loss of face have been possible explanations for the low mental health use patterns observed (Herrick & Brown, 1998; Kung, 2003).

Asian Americans in the United States and Help-Seeking

Asian Americans are one of the fastest growing ethnic groups in the Unites States (Miville & Constantine, 2007). Asian Americans are comprised of many subgroups including: Chinese, Japanese, Filipinos, Koreans, Laotians, Cambodians, Vietnamese and more making up about 5% of the population (Chu & Sue, 2011). Despite the fact that Asian American groups are heterogeneous, researchers often study all subpopulations as one group in contrast to Westerners. Research has consistently shown that Asian Americans are less likely to seek help for mental health problems as compare other ethnic groups (Abe-Kim et al., 2007). In a national comparison, Asian Americans were three times less likely to seek mental health services compared with the Caucasian population (Matsuoka et al., 1997). Instead of seeking help from mental health professionals, Asian Americans prefer informal solutions, seeking the support of friends or family or working out problems on their own and delaying the decision to seek professional until problems have gotten severe (Abe-Kim, Gong, & Takeuchi, 2004; Durvasula & Sue, 1998).

According to some literature, Asians have different mental health needs compared to other cultural groups. For instance, there is much research conducted that examined the differences in Asians and their perceptions of problems (Gim, Atkinson, & Whiteley, 1990; Tracey, Leong, & Glidden, 1986). Tracey, Leong, and Glidden (1986) found that Asian Americans are different from Caucasians in regards to their help-seeking process. Specifically, they found that Caucasian students presented more emotional/interpersonal problems whereas Asian-American students presented more academic/career issues. The literature has also indicated that Asian Americans' attitudes and beliefs towards seeking help, especially for mental health issues are less favourable than European Americans (Leong & Lau, 2001). Many Asian Americans believe that mental health services are irrelevant to their needs because mental health professionals may lack an understanding of language, ethnicity, and cross-cultural factors (Chen, Kazanjian, & Wong, 2009). Based on the cultural values, Asian Americans are prone to not discuss problems outside of the family (Gim, Atkinson, & Kim, 1991; Tata & Leong, 1994; Akutsu & Chu, 2006). Moreover, those who initiate contact, about one third of Asian Americans drop out of treatment before the intake session and premature treatment termination is common (Akustsu, Tsuru, & Chu, 2004).

Abe-Kim and colleagues (2007) found that U.S. born Asian Americans were more likely than first generation immigrant Asian Americans to use mental health services, and that third generation Asian Americans sought help at an even higher rate within the past year. Another study by Kim and Omizo (2003) showed that Asian Americans with stronger beliefs in Asian values had less positive attitudes about seeking help for mental health problems. Liao, Rounds, and Klein (2005) found that Asian Americans who are more acculturated to American society view help-seeking more positively than less acculturated Asian Americans. Despite these

findings, Asian Americans are still less likely to hold positive attitudes and beliefs about professional mental health services and initiate treatment than are their Euro-American counterparts. Asian American college students, for example, view counselling as the least helpful resource to deal with distress (Atkinson, Kim, & Caldwell, 1998). Factors that are proposed as influencing Asian American's attitudes and beliefs towards help-seeking include: acculturation, cultural value orientation, conceptualizations of mental health, stigma and shame, and perception of psychological distress (Cheng, et al., 2010; Kim & Park, 2009; Leong & Lau, 2001). Therefore, Asian American's attitudes and beliefs towards help-seeking are shaped by the ways that mental illness is conceptualized and expressed as well as by their cultural values and expectations. Cultural factors are heavily influential at each stage of the help-seeking process from cultural beliefs about the origins and significance of mental illness, to the recognition and assessment of distress, attitudes toward seeking professional help, and willingness to contact sources of professional help. In addition, higher rates of poverty and rates of being uninsured or underinsured can prevent access to mental health services (Chu & Sue, 2011).

Concepts of shame and stigma seem to play an important role in this process as well. For example, Asian American students report greater misconceptions and stigmatizations about mental health as a weakness that would bring shame to a family, indicating that greater personal stigma and lower stigma tolerance predicts less likelihood to seek help (Ting & Hwang, 2009).

Chinese Canadians in Canada: First and Second Generation Chinese Canadians

In 1967, Canada's immigration policy underwent significant revisions and immigrants were no longer selected on the basis of their race and country of origin but rather on their educational background and skills (Esses & Gardner, 1996). As a result, in the last few decades, Canada has received a large number of non-European immigrants from Asia, Latin

America, Africa, and the Caribbean (Jantzen, 2008). Chinese, in particular, have become the largest non-European ethnic group in Canada with 1.2 million (Statistics Canada, 2011). Immigrants often experience an elevated level of distress due to job insecurity, changes in family dynamics, economic hardships, and cultural differences between the country of origin and the host country (Fang, 2010). Studies have consistently shown the underutilization of formal mental health services by Chinese immigrants and even when they do seek help, they tend to present with more severe symptoms, are harder to treat, and often require longer inpatient hospitalization (Fang, 2010). The lower use of mental health services cannot simply be explained by the phenomenon that immigrants are healthier overall. Moreover, there is reason to believe that hesitation to use mental health services extends to generations born in the migration.

Twenty-six percent of the Chinese Canadian population was born in Canada (Statistics Canada, 2011). These Canadian-born Chinese, also known as second generation Chinese Canadians, are for the large part fluent in English and socialized in the Western culture (Jantzen, 2008). The second generation group includes both children born in Canada to immigrant parents and those who immigrated to Canada as young children (Koboyashi, 2008). Overall, they tend to fare well in Canada but often face challenges with their parents regarding acculturation issues (Cheung, Nelson, Advincula & Canham, 2005). Previous research, for example, has shown that second generation Chinese Americans are more similar to European Americans in terms of their career choice attitudes (Hardin, Leong & Osipow, 2001) and parenting style expectations (Chao, 2001). Chinese Canadian students are also more likely to advocate individualism (Cheung, Nelson, Advincula & Canham, 2005). Their immigrant parents, on the other hand, tend to adhere to traditional Chinese values, such as respect for

elders (Okubo, Yeh, Lin, Fujita & Shea, 2007). Due to these discrepancies in values, second generation Chinese individuals are more likely to experience conflicts with their parents (Ma & Yeh, 2005). According to Abe-Kim and colleagues (2007), they reported that second generation Asian Americans are, like their parents, also less likely to use mental health services. Chen and Wong (2009) showed that Chinese immigrants to Canada and Chinese individuals born in Canada were less likely than other Canadians to seek mental health services in the previous year. This means that underutilization cannot be attributed to immigration status or language barriers.

Given that the Chinese are one of the fastest growing populations in Canada, the dearth of research on this population is surprising. First of all, traditional help-seeking theories are often normed on middle class European Americans or Canadians. As such, many of the theories were derived from an individualistic culture, which emphasizes autonomy, equality and freedom when it comes to decision-making. The application of these theories to second-generation Chinese Canadians is yet to be explored, as this population is exposed to two sets of values: Chinese and Canadian. Secondly, the majority of the research on the help-seeking process of Chinese or Asian immigrants is conducted in the United States (e.g., Ma & Yeh, 2010; Tsai-Chae & Nagata, 2008). Findings of these studies might not be applicable to Chinese Canadians because Chinese immigrants might encounter different experiences in Canada and the United States. For example, the ethnic diversity of each country is different, thus affecting the level of discrimination that these individuals encounter. Thirdly, Asian Americans/Canadians are often treated as a homogenous group. For instance, Asian Americans are usually stereotyped as model minorities that are well behaved and that excel academically and vocationally. This is problematic because Asian Americans are a diverse population in North America, differing in culture, generation

status and acculturation level (Atkinson, Lowe, & Matthews, 1995; Leong & Serafica, 1995). Fourthly, the current literature tends to view Chinese Americans/Canadians as a uniform population without distinguishing their generation status. Generation status and differences in acculturation level are important factors to consider when working with Chinese Canadians, because such variability could lead to different values and expectations that these individuals hold (Jantzen, 2008). The current study focuses on second generation Chinese Canadians because the literature suggests that this generation experiences the most cultural conflicts (Ma & Yeh, 2005). The second generation of Chinese Canadians may indeed be a more vulnerable and overlooked group, as there is indication of possible higher risk of emotional disturbance and equally reluctance as first generation immigrants to seek mental health services. With the assumption that second generation individuals are able to access services because they do not have language barriers or are familiar with the health care system may result in less attention on their mental health status and needs as compared to their immigrant parents (Chen & Wong, 2009). Moreover, research on the second generation is relatively new and recent, and would be informative as this group differs from first generation Chinese in terms of language ability, immigration status, and patterns of accessing mental health services (Kobayashi, 2008). Therefore, the present study focuses on the help-seeking process of second generation Chinese Canadians in order to bridge the knowledge gap in the existing literature.

Theories Used to Guide Help-Seeking Research

In the last few decades, several theories have emerged and been used to study what influences help-seeking behaviours. The Health Belief model (Rosenstock, 1966), Andersen's Socio-Behavioural model (1995), Cramer's Model (Cramer, 1999), Theory of Reasoned Action (TRA: Ajzen & Fishbein, 1970), and the later conceptualization of the Theory of Planned

Behaviour (TPB: Ajzen, 1991) are the most popular theories as they attempt to integrate multiple factors into the conceptualizations of help-seeking behaviours. Even though these models share similarities, there are also important differences among the models as to the extent to which each integrates and explains the effects of cognitive, social, cultural, and interpersonal variables on the help-seeking process. The focus on this section is to briefly review the different theoretical research models. I will then present the theoretical background to the Theory of Planned Behaviour model and the rationale for using it to investigate help-seeking among second generation Chinese Canadians. Lastly, I will discuss the different components of the model in more detail along with current empirical findings.

The Health Belief Model (HBM) was developed in the 1950's in the health field to better understand health-related behaviours. The HBM is one of the most well-known and widely used theories in health behaviour research. The conceptual framework suggests that people's beliefs about their health problems, perceived benefits and barriers, and self-efficacy explain their health-related behaviours. Despite the applicability of the HBM in examining help-seeking behaviours in the medical field, including use of services for breast cancer (Wang, Hsu, Wang, Huang, & Hsu, 2014), testicular self-examination (McClenahan, Shevlin, Adamson, Bennett, O'Neil, 2006), and vaccinations (Mok, Yeung, & Chan, 2006), the HBM has not been rigorously tested to explain the use of mental health services for treatment of particular mental disorders. |A major limitation is that the model does not fully integrate the effects of social, cultural, and racial variables on help-seeking behaviours. Researchers and practitioners may find it difficult to apply the HBM to racial/ethnic minorities' help-seeking behaviours.

The Andersen Socio-Behavioural Model was developed in the 1960's to better

understand how health services utilization is impacted by social and behavioural factors (Aday & Andersen, 2005). The most recent version of the framework was developed in the 1990's and the model suggests that an individual's access to and use of the health services is a function of three categories of determinants: (1) Predisposing factors (e.g., social structure, health beliefs, and demographics), (2) Enabling factors (e.g., personal/family, community, and genetics), and (3) Need factors (e.g., perceived need for services, whether individual, social or clinically evaluated perceptions of need). The model has been criticized for not paying enough attention to culture and social interaction.

Another often used model in the help-seeking literature is Cramer's help-seeking model (Cramer, 1999; Liao, Rounds, & Klein, 2005). Cramer (1999) theorized that help-seeking behaviour is influenced by four factors: (1) attitudes toward seeking counseling, (2) available social support, (3) distress level, and (4) self-concealment of information that one perceives as negative. Cramer (1999) noted that a high level of distress and more positive attitudes toward counseling led to the increased likelihood that an individual would seek mental health services for psychological problems. Higher levels of distress were related to impaired social support and higher levels of self-concealment. Also, self-concealment was related to less positive attitudes towards counseling and impaired social support. What's interesting about the factors outlined by Cramer is that they seem to be important when examining the help-seeking behaviours of Asian Americans, particularly the concept of self-concealment, or loss of face (Liao, Rounds, & Klein, 2005). Liao, Rounds, and Klein (2005) added acculturation (behavioural acculturation and adherence to Asian values) to Cramer's model and found that this improved model fit to the data collected from a sample of Asian and Asian American college students.

Another prominent model in the help-seeking literature is the Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). According to the TRA, people's help-seeking behaviours are influenced by their intentions to seek psychological services. These intentions are influenced by two factors: attitudes toward the behaviour and subjective norms (Ajzen, 1991). Therefore, if an individual evaluates the suggested behaviour as positive (attitude) and that their significant others want them to perform the particular behaviour (subjective norms), this results in a higher intention to perform the behaviour.

Research using this model shows that the underlying assumption of TRA was only effective at predicting behaviours that were found to be under an individual's complete volitional or voluntary control, which limited the applicability of the theory. This excludes behaviours that are spontaneous, impulsive, habitual, or as a result of cravings or mindlessness. Based on the recognition that not all behaviours (e.g., help-seeking) are under volitional control, the TRA was extended and the Theory of Planned Behaviour was conceptualized (TPB; Ajzen, 1991). This modification allowed for the prediction of non-volitional behavioural and takes into consideration an individual's self-evaluation of the required skills, resources, and opportunities required to engage in a behaviour.

The Theory of Planned Behaviour

The TPB maintained the essential components of the TRA, but added perceived behavioural control (PBC). Ajzen (1991) postulated that an individual's perception of behavioural control affects help-seeking intentions, and therefore, perceived control can indirectly influence actual help-seeking behaviours through intentions. Therefore, the basic principle of the TPB is that an individual's intentions to seek psychological services are influenced by the following factors: a) attitudes toward seeking psychological services; b) the

perception of the approval or disapproval of seeking psychological help by others in one's life, and c) the perception of the ease or difficulty of seeking psychological services. More positive appraisals of all three factors will theoretically lead to the increased likelihood that individuals will intend and seek psychological services.

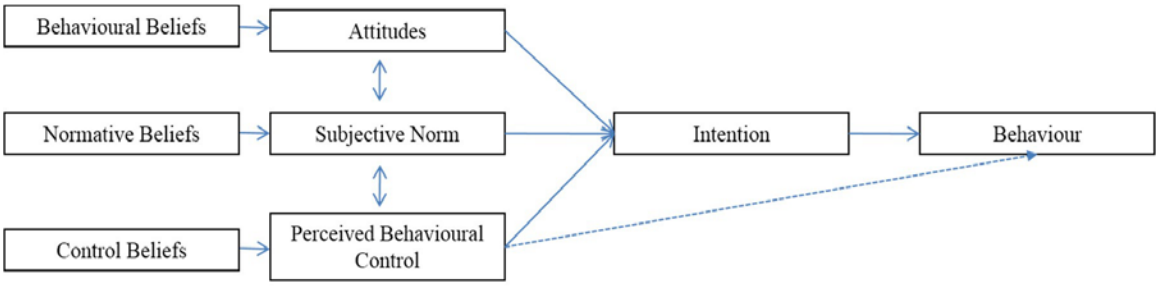

Figure 1. *Components of Ajzen's Theory of Planned Behaviour.*

This theoretical framework is particularly appropriate to study help-seeking in various ethnocultural groups because it allows for an understanding of the cultural perspectives that affect the help-seeking process. Moreover, seeking help is not fully under volitional control because it is influenced by environmental factors, this is where PBC becomes a central construct. The literature has highlighted the utility of the TPB in understanding several health behaviours including condom use (Albarracin, Johnson, Fishbein, & Muellerleile, 2001), exercise (Chatzisarantis, Hagger, & Smith, 2006; Rhodes, Blanchard, & Matheson, 2006), cancer screening (Tolma, Reininger, Evans, & Ureda, 2006), and use of sunscreen and sunbeds (Pertl, Hevey, Thomas, Craig, Ni Chuinneagain, & Maher, 2010).

A meta-analysis of the TPB explained on average 39% of the variance in intention and 27% of the variance in behaviour (Armitage & Conner, 2001; Webb & Sheeran, 2006). Although both the TRA and TPB have been shown to improve the prediction of intention and behaviour in different contexts, the TPB has been especially effective in that model fit indices for the TPB are consistently better than those for the TRA (e.g., Abraham & Sheeran, 2003; Godin & Kok, 1996; Hagger, Chatzisarantis, & Biddle, 2002; Webb & Sheeran, 2006). However, most of the research on psychological help-seeking, researchers continue to rely on the TRA (Christopher, Skillman, Kirkhart, & D'Souza, 2006; Kim & Park, 2009; Kuo, Roldan-Bau, & Lowinger, 2015; Vogel & Wester, 2003; Vogel, Wester, Wei, & Boysen, 2005). It appears that this oversight of discounting the PBC component of the TPB limits the ability to predict behavioural intentions. Since help-seeking behaviour would be classified as a behaviour with a low degree of volitional control, the TPB appears to be a better theoretical choice. Although some research has been conducted using the TPB to describe the help-seeking process in Asians, the application of the full model to second generation Chinese

Canadians is non-existent.

Measurement Issues in the TPB: Direct (Global) and Indirect (Belief-based) Measures

It is important to note that with the exception of behaviour, the variables in the TPB model are all psychological or internal constructs. Therefore, all predictors in the TPB can be measured directly (e.g. by asking individuals about their overall attitude), or indirectly (e.g. by asking individuals about corresponding beliefs and outcome evaluations). Direct and indirect measures are alternate ways of measuring the same construct. Often times, researchers erroneously assume that direct measures of the TPB are obtained by asking a few arbitrarily selected questions or by adapting items used in previous studies (Ajzen, 2002). Even though interesting results may arise from this, it can also produce measures with low reliabilities and lead to an underestimate of the relationships between variables and their predictive validity. Moreover, direct measures are unable to examine specific personal beliefs that may lead to the formation of the construct of interest.

Indirect or belief-based measures are based on the assumption that beliefs provide the cognitive and affective foundations for attitudes, subjective norms, and PBC. By relying on measuring beliefs can result in obtaining indirect measures of the TPB constructs and allow the examination of specific salient beliefs that influence formation of these constructs. Theoretically, by measuring beliefs, we can gain knowledge into the underlying and explanatory cognitive foundations that can help with designing intervention programs. By utilizing belief-based measures, items can be more specific (e.g., subjective norms concerning certain referent groups like family or friends, whereas a direct measure would provide a more global assessment of important others' perceptions with no specifications as to who important others are).

Direct and indirect measurement approaches make different assumptions about the

underlying cognitive structures and neither approach is perfect. When different methods are tapping the same construct, it is recommended that both types of measurements be included in TPB questionnaires (Francis et al., 2004). Based on this recommendation and for the purpose of this study, the utility of the TPB will be measured using both direct and indirect measures. For example, the direct measurement of attitudes according to Ajzen's guidelines involves the use of bipolar adjectives that are evaluative (e.g., good-bad, useful-useless) whereas the indirect measurement of attitudes includes standardized measures in the help-seeking field measuring behavioural beliefs and outcome evaluations (e.g., People should work out their own problems; getting professional help should be a last resort). By testing the theory combining both measurement approaches will yield additional information to better understand the help-seeking process among second generation Chinese Canadians. This is a strength and unique contribution to the help-seeking field. The following sections will discuss each of the constructs and methods used to assess the direct and indirect measure of the TPB.

Attitudes Toward Help-Seeking

According to Ajzen (1991), attitudes are formed by salient beliefs about the expected outcomes of a particular behaviour and the evaluation of those outcomes (e.g., favourable vs. unfavourable, good vs. bad). In general, attitudes has been found to be a significant variable in predicting intentions to perform a behaviour, more specifically positive attitudes toward seeking help lead to greater intentions to seek psychological help (Bayer & Peay, 1997; Vogel & Wester, 2003; Vogel et al., 2005).

The attitude construct has been operationalized as both direct and indirect measures. A direct measure of attitudes can be assessed using bipolar adjective scales (e.g., good-bad, helpful-harmful, acceptable-unacceptable) towards a behaviour. Summing the scale-items

used in a direct measure of attitude results in a single score that represents a person's general evaluation of favourableness or unfavourableness towards the behaviour of interest. Indirect measures of attitude are determined by measures that include behavioural beliefs and outcome evaluations. Salient beliefs an individual hold about performing the behaviour of interest are measured and may be formed from a person's direct observation or acquired indirectly by accepting information from outside sources or self-generated through inference processes (Ajzen & Fishbein, 1980). Outcome evaluation refers to an individual's evaluation of consequences when performing the specific behaviour of interest and is the value attached to a behavioural outcome. The concept refers to the degree to which a person believes that performing a behaviour will result in a positive/good or negative/bad outcome. In this study, a direct measure of attitudes is used based on Ajzen's guidelines and an indirect measure of attitudes as developed by Mackenzie, Knox, Gekoski, and Macaulay (2004) was used.

Over the last few decades, research has focused on examining attitudes towards seeking psychological help and the relationships between attitudes, intentions and behaviours of help-seeking. Research has found that the influence of attitudes on mental health utilization has been somewhat mixed. For instance, studies have found attitudes to be highly predictive of help-seeking behaviours (Fischer & Farina, 1995), somewhat predictive (Leaf, Livingston, & Tischler, 1986), and not predictive (Lefebre, Lesage, Cyr, Toupin, & Fournier, 1998; Mesidor & Sly, 2014). This is important to explore further as negative attitudes can be a major barrier to seeking help. In contrast, positive attitudes can act as a facilitator to seeking help.

Within the help-seeking literature, attitudes toward seeking help has been commonly measured using the Attitudes Toward Seeking Professional Help scale (ATSPPH; Fisher & Turner, 1970). Over the years, ATSPPH has been valuable in the help-seeking field of research,

adding significantly to the prediction of intentions (Cepeda-Beniito & Short, 1998; Kelly & Achter, 1995). However, Vogel and Wester (2003) suggested a much needed revision and update to the ATSPPH due to conceptual and methodological concerns. The original standardization sample was comprised of students, which might not be representative of individuals who do seek help. Moreover, the items on the scale are rated on a 4-point scale may be problematic as it has been shown that scales who have ratings under 5-points are less valid and reliable (Krosnick & Fabrigar, 1997). Since this measure was developed in 1970, the scale includes archaic and outdated language (e.g., gender-specific pronouns, referring exclusively to psychiatrists and psychologists as mental health providers, etc…). Even though the ATSPPH was appropriately developed to measure attitudes toward seeking help, this process was conducted before the use of theory-driven research and theories used in the help-seeking inquiries. Moreover, instead of revising and modifying the scale in 1995 to address some of these concerns and limitations, Fisher and Farina worked on shortening the scale to 10 items.

More recently, Mackenzie, Knox, Gekowski, & Macaulay (2004) adapted and extended the ATSPPHS to address the above-mentioned concerns and limitations, and developed the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS). The strength of this scale is that they used Ajzen's TPB to guide item development and has been validated with students. As this is a newer measure, the IASMHS still needs to be validated in different cultural groups. The IASMHS was used in the current study instead of the ATSPPH because of its TPB applicability and its validity and reliability.

Attitudes Toward Seeking Help Among Ethnic Minority Cultures

In recent years, research on attitudes and their impact on intentions to seek help has started to be explored in ethnic minority cultures (Kim & Omizo, 2003; Mesidor & Sly, 2014;

Omizo, Kim, & Abel, 2008; Ramos-Sanchez & Atkinson, 2009). In general, African-Americans, Mexican-Americans, Asian Americans, international students, and other cultural groups have been found to have more negative attitudes toward seeking psychological help compared to their European American counterparts.

In addition, research efforts have focused on the impact of cultural variables on attitudes toward help-seeking. For example, studies have found that Asian Americans with a higher adherence to Asian values had less positive attitudes toward psychological help-seeking and lower intentions to seek help for personal or health problems (Kim & Omizo, 2003; Liao et al., 2005, Omizo, Kim, & Abel, 2008; Yakunina & Weigold, 2011). In general, the research supports the importance of attitudes in the help-seeking decision. It has shown to mediate the relationships between several psychological and cultural variables and intentions to seek help. Even though this is likely the case for Chinese Canadians, not many studies have examined this directly (Mo & Mak, 2009). Moreover, with the newer IASMHS developed with the TPB guidelines, it is important to test and validate this scale.

Subjective Norms

Subjective norms consist of an individual's perception of social pressure to perform or not to perform a behaviour, based on significant others' approval or disapproval of performing the behaviour (Ajzen, 1991). Therefore it combines one's perception of whether or not important others think a behaviour should be performed and one's motivation to comply with the social norms. Unlike attitude, subjective norms has not been examined as extensively in the help-seeking literature.

Similar to the attitude construct, subjective norms are assessed in this study using both direct and indirect measures. A direct measure of subjective norms would include

questions rated using a Likert scale with bipolar adjectives item pairs (e.g., likely-unlikely, want-not want, should-should not). Indirect measures of subjective norms are determined by measures that include normative beliefs and motivation to comply. Normative beliefs involve the individual's perceptions of salient group norms and their expectations that important individuals or groups endorse performing a specific behaviour. The second part is the degree to which an individual is motivated to comply. In this study, a direct measure of subjective norms is used based on Ajzen's guidelines, as well as indirect measures of subjective norms including: the Inventory of of Attitudes toward Seeking Mental Health Services developed by Mackenzie, Knox, Gekoski, and Macaulay (2004) and the Stigma Scale for receiving Psychological Help by Komiya, Good and Sherrod (2000).

Several studies have examined the role of subjective norms in predicting intentions to seek professional psychological help. Some researchers have found subjective norms to be positively correlated with their intentions to seek help for a psychological problem (Bayer & Peay, 1997; Bringle & Byers, 1997; Christian & Abrams, 2003; Christopher et al., 2006; Codd & Cohen, 2003; Kleinman et al., 2002; Kuo, Roldan-Bau, & Lowinger, 2015; Mackenzie et al., 2004; Mo & Mak, 2009), whereas others have not found support for this relationship (Jarvis, 2002; Westerhof, Maessen, de Bruijn, & Smets, 2008). However, this literature is marked by frequent use of single-item assessments of subjective norms, the reliability of which is unknown. Also of concern is that these researchers have relied on unstandardized measures. In sum, research on the subjective norms component of the TPB has resulted in an inconsistent picture regarding its contribution to the prediction of behavioural intentions and behaviours.

Subjective Norms Among Ethnic Minority Cultures

It is crucial to keep in mind that the relative contribution of attitudes, subjective norms, and PBC in predicting intentions will vary depending, not only on the behaviour under study, but also on the target cultural group (Ajzen, 1991; Fishbein, 2003). More recently, some studies have shown the predictive ability of subjective norms among African Americans (Barksdale & Mollock, 2009); Latino Americans (Cabassa & Zayas, 2007), Asian Americans (Kim & Park, 2009) and Chinese from Hong Kong (Mo & Mak, 2009) in the help-seeking process. For example, Barksdale and Mollock (2009) tested a culturally modified TRA model of help-seeking among African American college students. They examined subjective norms (e.g., perceived family and peer norms) and their predictive ability on intentions to seek help, and left out attitudes. They found that both perceived family and peer norms were negatively correlated to help-seeking intentions. However, only perceived family norms was a significant predictor of intentions to seek help highlighting the importance of the role of family among African Americans and their help-seeking process.

In a similar vein, Kim and Park (2009) adapted the TRA and tested attitudes and subjective norms as mediators between Asian values and intentions to seeking help among Asian American college students. Subjective norms were measured using questions that were developed following Ajzen and Fishbein (1980) guidelines. Results showed that subjective norms was a significant mediator between Asian values and help-seeking intentions. The stronger adherence to Asian values was related with negative subjective norms, which was associated with less willingness to seek help from a counselor. On the other hand, attitudes was not a significant mediator between Asian values and intentions to seek help. The findings highlight the importance of social influences and the values of culture in shaping one's help-

seeking decision process. This may be related to the fact that Asian culture values collectivism, interpersonal relatedness, harmony with others, concern for loss of face, conformity with significant others, and respect for authority figures just to name a few (Cheung, Leung, Zhang, Sun, Gan, Song, & Xie, 2001). This means that individuals within a collectivistic culture might define oneself in relationship to others in their cultural group and consider the needs and preferences of one's reference group in guiding their actions (Triandis, 1995). Taking these values into consideration, within the TPB, how significant others think about seeking help should play an important role.

Stigma is another type of subjective norm that influences mental health seeking behaviours. Recently, studies have begun to focus on social stigma (Vogel, Wester, Wei, & Boysen, 2005). Public or social stigma is defined as the general public's negative perceptions of an individual based on their membership in a particular group (e.g., mentally ill, recipient of therapy) (Barney, Griffiths, & Jorm, & Christensen, 2006). Because Asian cultures typically emphasize values including: respect for those in authority, filial piety, collectivism, and conformity to norms, it is likely that one's cultural group members exert significant social influence on one another (Kim & Park, 2009). Mo and Mak (2009) suggested that significant others play a central role in defining goals and decision-making. Miville and Constantine (2007) studied cultural values, counseling stigma, and intentions to seek counseling among Asian American college women. They found that there was a positive correlation between Asian cultural values and perceived counseling stigma. Importantly, they found that both Asian values and social stigma inversely correlated with intentions to seek counseling.

It is important to point out that, even though several studies used Ajzen and Fishbein (1980) methodology and developed their questions with the TPB guidelines, many researchers

expressed concerns regarding the limitations of using single-item to assess a construct. The recommendation to strengthen this would be to develop additional approaches to measure these constructs.

Perceived Behavioural Control

Perceived Behavioural Control (PBC) was initially conceived and added to the TRA to account for behaviours that are not completely under volitional control (Ajzen, 1985). PBC is the extent a person believes a given behaviour is under their control and how easy or difficult performing a given behaviour was perceived to be (Ajzen & Madden, 1986). Again, PBC can be operationalized as both a direct or indirect measure. A direct measure of PBC measures self-efficacy (confidence) and controllability. An indirect measure of PBC is determined by self-efficacy and control beliefs. Self-efficacy involved the level of perceived confidence on performing the specific behaviour whereas control beliefs are beliefs that they have control over the behaviour that its performance is or is not up to them. In this study, a direct measure of PBC is used based on Ajzen's guidelines, as well as indirect measures of PBC including: the Inventory of Attitudes toward Seeking Mental Health Services (Mackenzie, Knox, Gekoski, & Macaulay, 2004), the Self-Efficacy: Mental Health Efficacy – Revised (Sirois, 2003), and the Multidimensional Mental Health Locus of Control – Revised (Wallston, Wallston, & DeVellis, 1978).

Meta-analyses suggest that the prediction of behaviours and intentions is improved when PBC is added to the TRA, contributing an increment of 5-13% of the variance in intentions (Armitrage & Conner, 2001; Godin & Kok, 1996; Munoz-Silva, Sanchez-Garcia, Nunes, & Martins, 2006; Sheeran & Taylor, 1999). Despite the increase in predictive power, several researchers suggests that PBC is not well understood. Even though it seems like a

unidimensional construct, items that are used to measure the PBC seem to be a mixture of different items (e.g., ease/difficulty, confidence, perceived controllability, locus of control). This has led to several investigations into the dimensionality of this construct whereby several researchers have presented evidence supporting that there are two distinct underlying components within this construct (Armitage & Conner, 1999; Tavousi, Montzaru, Hidarnia, Hajizadeh, Taremain, & Haerimehrizi, 2014; Terry & O'Leary, 1995; White, Terry, & Hogg, 1994). This led Ajzen (2002) to reconceptualise PBC as an overarching construct with two different, but interrelated components: self-efficacy and controllability. Self-efficacy refers to the perceived ease/difficulty and confidence items. Self-efficacy often refers to the confidence and beliefs one holds about their capabilities to perform the behaviour in question, including confidence in overcoming barriers to achieve a behaviour (Bandura, 2001). Controllability refers to the perceived control and locus of control items. This reflects the extent to which a person perceives the performance of their behaviour to be within their own control.

A review of several empirical studies suggests self-efficacy and controllability can be reliably distinguished among several different behaviours, with evidence of self-efficacy being superior to controllability in predicting intention and behaviour (Trafimow, Sheeran, Conner, & Finlay, 2002). Studies looking at the distinction between the two have also noted that they may play different roles depending on the specific behaviour to which they are applied (Pertl, Hevey, Thomas, Craig, Ni Chuinneagain, & Maher, 2010). In general, researchers have typically found support for a positive association between perceived behavioural control and one's intentions to seek help for a psychological problem (Christian & Abrams, 2004; Jarvis, 2002; Kleinman et al., 2002; Mackenzie et al. 2004; Mo & Mak, 2009; Westerhof, Maessen, de Bruijn, & Smets, 2008). Like research on attitudes and subjective norms, measurement of PBC

has been limited by use of scales with unknown validity or single items with unknown reliability. It is quite surprising that the bulk of studies on help-seeking have not included PBC as an independent variable along with attitudes and subjective norms when examining help-seeking intentions and behaviours. See Table 1 for the list of direct and indirect measures, definitions of constructs, hypothesized roles and measures.

Table 1

Direct and Indirect Measures: Definition of Constructs, Hypothesized Roles and Measures

Constructs	Definition	Hypothesized Role	Measure
1st Research Question			
a) Attitudes (TPB) *Direct Measure*	Overall evaluation of performing the behaviour	Predictor of Intentions	A direct measure constructed according to Azjen's guidelines
Attitudes (IASMHS: Psychological Openness) *Indirect Measure*	Extent to which individuals are open to admitting that they have a psychological problem and to the possibility of seeking professional psychological help	Predictor of Intentions	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)
b) Subjective Norms (TPB) *Direct Measure*	Belief about whether most people approve/disapprove of the behavior	Predictor of Intentions	A direct measure constructed according to Azjen's guidelines
Compliance to Subjective Norms (TPB) *Direct Measure*	Extent would comply with what people want you to do	Predictor of Intentions	A direct measure constructed according to Azjen's guidelines
Subjective Norms (IASMHS: Indifference to Stigma) *Indirect Measure*	Extent to which individuals are concerned of what important others might think if they discovered that the individual were receiving professional help for psychological problems	Predictor of Intentions	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)
Subjective Norms (SSRPH: Chinese Stigma) *Indirect Measure*	Perception of stigma from Chinese community, that would result from seeking professional psychological help	Predictor of Intentions	The Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000)

Subjective Norms (SSRPH: Canadian Stigma) *Indirect Measure*	Perception of stigma from Canadian community, that would result from seeking professional psychological help	Predictor of Intentions	The Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000)
c) Perceived Behavioural Control (TPB: Confidence) *Direct Measure*	Confidence capable of performing the behaviour	Predictor of Intentions	A direct measure constructed according to Azjen's guidelines
Perceived Behavioural Control (TPB: Control) *Direct Measure*	Belief that they have control over the behaviour	Predictor of Intentions and Behaviours	A direct measure constructed according to Azjen's guidelines
Perceived Behavioural Control (IASMHS: Help-seeking Propensity) *Indirect Measure*	Extent to which individuals believes in their capability to seek psychological help	Predictor of Intentions and Behaviours	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)
Perceived Behavioural Control (MHE-R: Self-Efficacy) *Indirect Measure*	Feelings of competence and confidence in being able to carry out actions important to maintaining and taking care of one's mental health	Predictor of Intentions	Self-Efficacy: Mental Health Efficacy – Revised (MHE-R; Sirois, 2003)
Perceived Behavioural Control (MMHLC-R: Locus of Control) *Indirect Measure*	Beliefs in internal or personal control over mental health	Predictor of Intentions and Behaviours	Multidimensional Mental Health Locus of Control – Revised (MMHLC-R form A; Wallston, Wallston, & DeVellis, 1978)
d) Intentions (TPB) *Direct Measure*	Perceived likelihood of performing behaviour	Predictor of Behaviours	A direct measure constructed according to Azjen's guidelines
Intentions (ISIC-CR) *Indirect Measure*	Willingness to seek treatment	Predictor of Behaviours	Intentions to Seek Counselling Inventory – Cultural Revision (ISCI-CR; Cash, Begley, McCown, & Weise, 1975)

e) Behaviours (TPB) *Direct Measure*	In the past, whether or not seen a mental health provider for emotional problems	Outcome	A direct measure constructed according to Azjen's guidelines

Variables	Definition	Hypothesized Role	Measure
2nd Research Objective			
Ethnic Identity	Levels of ethnic identification or commitment to an ethnic culture	Predictor	Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992)
Canadian Identity	Levels of Canadian identification or commitment to Canadian culture	Predictor	Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992)
Asian Values	Adherence to Asian cultural values	Predictor	The Asian American Values Scale-Multidimensional (AAVS-M: Kim, Li, & Ng, 2005)
European Values	Adherence to European American Values	Predictor	The European American Values Scale for Asian Americans - Revised (EAVS-AA-R: Hong, Kim, & Wolfe, 2005)
Family Connectedness	Connectedness to their family	Predictor	Family Allocentrism Scale (FAS; Lay, Fairlie, Jackson, Ricci, Eisenberg, Sato, and Melamud, 1998)
Anticipated Benefits	Expectations about the benefits associated with talking about an emotional problem with a counselor	Predictor	The Disclosure Expectations Scale (DES; Vogel & Wester, 2003)

Anticipated Risks	Expectations about the risks associated with talking about an emotional problem with a counselor	Predictor	The Disclosure Expectations Scale (DES; Vogel & Wester, 2003)
Self-Concealment	Predisposition to conceal personal information from others	Predictor	Self-Concealment Scale (SCS; Larson & Chastain, 1990)
Self-Stigma	Extent to which individuals internalize stigmatizing feelings related to seeking mental health services	Predictor	Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006)
Attitudes (IASMHS: Psychological Openness)	Extent to which individuals are open to admitting that they have a psychological problem and to the possibility of seeking professional psychological help	Outcome	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)
Subjective Norms (IASMHS: Indifference to Stigma)	Extent to which individuals are concerned of what important others might think if they discovered that the individual were receiving professional help for psychological problems	Outcome	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)
Perceived Behavioural Control (IASMHS: Help-seeking Propensity)	Extent to which individuals believes in their capability to seek psychological help	Outcome	Inventory of Attitudes toward Seeking Mental Health Services (IASMHS; Mackenzie, Knox, Gekoski, & Macaulay, 2004)

Cultural Correlates of Help-Seeking Among Asian Americans

Although research examining help-seeking behaviours among Asian Americans is limited, there is some evidence to suggest that culture plays an important role in the help-seeking process. For example, the stigma of depression has been found to be more severe in Chinese Americans than in European Americans, which may influence willingness to seek treatment (Hsu et al., 2008). Cultural values, such as concerns with stigma and shame, may also play a significant role in Asian American help-seeking attitudes and behaviours (Gong, Gage, & Tacata, 2003). Despite these findings, many theories in help-seeking continue to ignore the impact of cultural variables. Many researchers have recommended that studies on ethnic minority populations include specific cultural constructs into existing theories to better capture the psychological and cultural processes (Betancourt & Lopez, 1993). Although a few help-seeking studies have incorporated these suggestions (e.g., Kim & Park, 2009; Liao, Rounds, Rounds, & Klein, 2005; Mo & Mak, 2009), there is still a need to explore the impact of culturally-relevant variables in understanding the help-seeking process. To date, those studies have shown that different theories (e.g., TRA, Cramer's Model, and TPB) can be well adapted to incorporate culturally-relevant variables to the knowledge of help-seeking among ethnic minority populations. The next sections will focus on the cultural and psychological variables that are hypothesized to be influencing the help-seeking decision of Asians/Asian-Americans. These include values, identity, family connectedness, self-concealment, self-stigma, and anticipated benefits and risks, which will be explored in this study.

Acculturation: Values and Identity

In cross-cultural research, acculturation is an important cultural variable and has been revised and expanded over the years (Kim & Abreu, 2001; Kim & Omizo, 2003). In the early

stages of the study of acculturation, the term was meant to define the process of adaptation or change that occurs as an immigrant or minority group member goes through as they become accustomed to a new, dominant culture (Schwartz, Montgomery, & Briones, 2006). However, this definition did not account for the introduction of minority cultural norms to those individuals who have family heritage and cultural values outside the dominant culture but who were never fully socialized into those norms (e.g., second generation). Researchers have attempted to account for this issue by conceptualizing acculturation as two relatively orthogonal processes: (a) adapting to aspects of the mainstream culture and the new associated norms and (b) maintaining aspects of the heritage culture and norms (e.g., Berry & Kim, 1988; Berry et al., 1986; Kim & Abreu, 2001).

Moreover, past measures tended to focus on measuring broad acculturation, with acculturation conceptualized in a unidimensional manner (Chia & Costigan, 2006; Brotto, Chik, Ryder, Gorzalka, & Seal, 2005). This process of acculturation is now known to be bi-dimensional in nature, whereby the relationship between the heritage culture and the mainstream culture is independent and complex (Berry, 1997). Thus, a main trend towards one's own culture and the culture of reception simultaneously is not a contradiction, because the processes are independent and individuals can highly be acculturated with the two cultures simultaneously. Acculturation also is selective, in that individuals may elect to preserve certain values, while selectively adopting values from the host society (Negy & Woods, 1992).

Despite these methodological issues, many studies have emphasized the importance of acculturation to Asian Americans' help-seeking attitudes, intentions, and behaviours. For instance, more acculturated Chinese American students (Tata & Leong, 1994) and Asian international students (Zhang & Dixon, 2003) tend to have positive attitudes towards

counselling, which may inform their help-seeking intentions and behaviours. In a study of beliefs about the likely causes of 24 typical counselling problems, Mallinckrodt, Shigeoka, and Suzuki (2005) found that higher levels of acculturation among Asian Americans was significantly related to a greater willingness to seek mental health services, and greater similarity between counsellors' and students' beliefs of the causes of counselling problems. In addition, congruence between counsellors' and students' etiological beliefs of counselling problems was significantly associated with greater willingness to see a counsellor and more favourable ratings of a counsellor.

In a related literature with Asian and Asian-American populations, the addition of these cultural variables has significantly added to the prediction of help-seeking attitudes and intentions. For example, Liao, Rounds, and Klein (2005) tested the help-seeking model developed by Cramer (1999) and added acculturation variables (behavioural acculturation and adherence to Asian values). The results indicated that both cultural variables contributed significantly to the prediction of willingness to seek counselling through the mediator of attitudes toward counselling. However, this study grouped many ethnic subgroups of Asian Americans as one large group, and did not look at within-group differences. These results are promising as they offer some support for the hypothesis that cultural variables are important predictors for Asian immigrants and their descendants.

Assessment and Measurement of Acculturation

Most of the research on acculturation of Asians has used the Suinn-Lew Self-Identity Acculturation Scale (SL-ASIA; Suinn et al., 1987). However, the scale has been criticized for its assessment of acculturation as a unidimensional construct and emphasizing on behavioural acculturation (Kim & Abreu, 2001). However, recently, Liao, Rounds, and Klein found that of

adherence to Asian values and behavioural acculturation, adherence to Asian values accounted for more explanatory variance in predicting attitudes toward help-seeking. This finding underscores the multidimensional nature of acculturation.

Researchers' criticisms about the unlinear approach have prompted a need for the development of instruments that consider acculturation as orthogonal (Kim & Abreu, 2001), and that assess dimensions beyond language and behavioural elements of acculturation. This approach would enable assessment of the preservation or loss of the culture and of the acquisition of the host culture as a process of change that can occur separately from each other, providing a more accurate understanding of acculturation as a multidimensional and multidirectional process, as originally conceptualized (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Despite the acknowledgement among researchers of acculturation as a multidimensional construct that entails various behavioural and psychological domains, the use of unidimensionally conceptualized assessments remains a recurrent practice (Abe-Kim, Okazaki, & Goto, 2001).

Adherence to cultural values is important, as behavioural aspects appear to change more rapidly than values, which are more enduring and long-lasting (Kim, Li, & Ng, 2005). Recently, Kim and Abreu (2001) described acculturation as consisting both of adaptation to the norms of the dominant group (i.e., Canadians) and retention of the norms of the cultural group (i.e., Chinese). According to the Asian American Values Scale (Kim, Li, & Ng, 2005), cultural values that are salient for Asian Americans in general include: collectivism, conformity to norms, emotional self-control, family recognition through achievement, and humility. According to Wolfe, Yang, Wong, & Atkinson (2001), European American values include: individualism, autonomy, future orientation, and mastery of the environment. Adherence to

either Asian or European American values has been found to influence individuals with regard to several factors related to mental health, including their help-seeking behaviours (Wolfe, Yang, Wong, & Atkinson, 2001). Kim and Omizo (2003) found that Asian Americans with high adherence to Asian values had less positive attitudes toward psychological help-seeking and less willingness to see a counsellor in general or for personal and health-related problems.

Despite the more recent attention for assessment of acculturation in Asian Americans as a multidimensional, multilinear construct, there is a gap in research addressing the relations between adherence to both Asian and European American cultural values and its link to help-seeking. Recently, Miller (2010) validated the bilinear model of Asian American acculturation and showed its superiority to unilinear models as he measured both Asian and European values among first and later generation Asian Americans. This present study was conducted with this conceptualization in mind as it may yield more meaningful results and gain a better understanding of Chinese Canadians' help-seeking process. The bidimensional measure of acculturation included the individual's level of adherence to their ethnic culture (e.g., Asian values), and adherence to the dominant culture (e.g., Canadian values).

Ethnic Identity

While acculturation has focused on the relationship between ethnic individuals and the dominant society, ethnic identity has emphasized how closely an individual feels invested in a specific ethnic group (Schonpflug, 2011; Mirville & Constantine, 2006; Oetting & Beauvais, 1991; Sue & Zane, 2009). Ethnic identity is defined as "an individual's sense of self as a member of an ethnic group and the attitudes and behaviours associated with that sense" (Phinney & Alipuria, 1987). Compared with research on acculturation, less research has been conducted on Asian Americans' ethnic identification (Hsiao & Wittig, 2008). In addition,

despite theoretical discussions, relatively little research (Cuellar, Nyberg, Maldonado, & Roberts, 1997) has been conducted measuring both acculturation and ethnic identification within ethnic groups. A recent study on Mexican Americans, however, supported the hypothesis that acculturation and ethnic identity are related, but separate constructs (Cuellar, Nyberg, Maldonado, & Roberts, 1997).

It is crucial to note that ethnic identity is consequential for an individual's psychological well-being and self-esteem when it is an important part of their self-concept, especially in Asian Americans (Yip, 2005). Recently, ethnic identity has been considered an important construct in relation to help-seeking attitudes (Kim & Omizo, 2003). Multiple studies have also shown that ethnic identity in Asian Americans can be associated with both positive and negative feelings and attitudes towards the self, culture and family of origin, and host culture (Cheng et al., 2010). Thus, it is important to look at the implications of ethnic identity in Chinese Canadians, their attitudes towards help-seeking, as well as possible treatment barriers.

Perception of one's own ethnic identity is important especially to second generation immigrants who are born in the Canada or the United States, being exposed to North American culture from birth (Yeh & Huang, 2000). The children of immigrants are also exposed to the heritage culture of the parents. The first exposure is of the heritage culture that the parents explicitly follow at home. As they grow up and socialize, they are exposed to the North American culture, influencing their identities. The experience results in the transformation of the self-perceptions about the identity placing them in a position to makes choices of assimilating completely into the North American identity, or retaining and balancing between their heritage identities. Therefore, for second generation individuals, the choice and level of

adaptation differs from individual to individual and from one group to another based on various factors (Kim & Omizo, 2003). Recently, Iwamoto and Liu (2010) investigated Asian international students' ethnic identity and reported its significant relationship to attitudes toward seeking professional psychological help; the higher the sense of ethnic identity, the less favourable their attitudes were. These findings do seem to lend support to the theoretical perspectives of Phinney (1992) on ethnic identity and well-being. It seems that the solidification of ethnic identity may in fact lead to positive well-being to the point of needing less professional psychological help. The present study employed the measures of ethnic identity and Canadian identity to examine the relationship between identity and attitudes, subjective norms, and PBC among second generation Chinese Canadians. This has not be explored before.

Family Connectedness

Family has increasingly been recognized as an important factor affecting individuals' health status (Alarcon, 2009). In traditional Asian cultures, the family is considered the central and most important domain of one's life. In such collectivist cultures, the strength of the family rests on the strength of the individual members (Buki, Ma, Strom, & Strom, 2003). However, the needs of the family are seen as more important than the needs of the individual. Family members are expected to make sacrifices and decisions that are in the best interest of the family (Uba, 1994).

Family values are conceptualized by the terms allocentrism and idiocentrism. Allocentrism and idiocentrism are constructs that are used to describe a specific cultural orientation at the individual level. In order to fully understand allocentrism and idiocentrism, these constructs must be examined at a cultural level, which are identified as individualism and

collectivism (Triandis, Leung, Villareal, Asai, & Clack, 1985). Consistent with the definitions of individualism and collectivism, allocentric individuals tend to conform to the in-group norms, tend to be cooperative and tend to place the needs of the family above theirs (Berry, Segall, & Kagitcibasi, 1997). Idiocentric individuals emphasize their own goals and needs above the family; they stress independence and make decisions on their own as opposed to seeking assistance from the family.

The issue of whether an individual comes from an allocentric-oriented family or an idiocentric-oriented family influences the help-seeking process. Individuals share a feeling of connectedness to their families during the early stages of their lives; however, differences concerning this connection may change later in life depending on the individual (Triandis, 1995). A more allocentric-oriented family may perceive greater support from their families than idiocentric individuals. The term family allocentrism has been used interchangeably with family connectedness in the literature (Abe-Kim, Takeuchi, & Hwang, 2002; Qin, 2007). Lay, Fairlie, Jackson, Eisenberg, Sato, Teeaar, and Melamud (1998) found that family connectedness played a protective factor against the effects of daily hassles.

The literature regarding family connectedness and its association with help-seeking is quite scarce. Scott, Ciarrochi and Deane (2004) found that among first year university students, idiocentrism was associated with smaller and less satisfying social networks, lower intentions to seek help from friends and family and higher levels of happiness, as well lower suicidal ideations. These findings suggest that a sense of family connectedness may lessen the detrimental effects of distress. Triandis et al. (1985) also found that individuals who identified themselves as allocentric reported receiving more social support and a better quality of social support than those who were idiocentric. In sum, the literature points to the importance of

family influences as a core cultural variable among Asian Americans and family connectedness was included in the current study.

Self-Concealment

In the general mental health literature, self-concealment is defined as the tendency to actively conceal from others information perceived as highly intimate, distressing, or negative (Larson & Chastain, 1990). Since concealing problems can be distressing to individuals, studies have begun to explore the impact of self-concealment on help-seeking (Cepeda-Benito & Short, 1998; Cramer, 1999; Larson & Chastain, 1990; Wallace & Constantine, 2005).

Accordingly, the extent to which individuals endorse favourable attitudes toward seeking professional psychological help may be influenced by their willingness to reveal sensitive personal information in a therapeutic setting. For example, Cepeda-Benito and Short (1998) found that high self-concealers generally have unfavourable attitudes toward professional help-seeking for personal problems or emotional difficulties because they are concerned about revealing their most intimate and distressing experiences. Cramer (1999) found that high self-concealers who do not develop strong social support networks experience higher levels of psychological distress. Simultaneously, these high self-concealers have a greater need for counselling because of high levels of distress but are inhibited from seeking help because of their negative attitudes towards seeking professional psychological help (Kahn & Williams, 2003).

When examining this relation in European and Asian American college students, Liao, Rounds, and Klein (2005) found that self-concealment was more negatively related to attitudes toward counselling for the Asian American students. The central role of self-concealment in understanding Asian Americans' attitudes toward counselling is perhaps linked to the issue of

avoidance of shame and loss of face. Saving face is a salient value in Asian cultures and it represents a person's social status or position and serves as a mechanism for maintaining group harmony (Masuda & Boone, 2011; Mo & Mak, 2009). Self-concealment could be viewed as way of avoiding loss of face to maintain one's social roles and integrity. Therefore, the influence of self-concealment on Asian Americans' attitudes seems to be shaped by Asian cultural norms regarding social relations. The present study explored this cultural variable and its effects on the help-seeking process among second generation Chinese Canadians.

Additional Predictors: Self-Stigma

Although there has been and emphasis on Asian Americans' increased recognition and acceptance of mental illness, stigma remains another primary barrier to accessing psychological services (Corrigan, 2004; Wynaden, et. al., 2005). Corrigan (2004) delineates two types of stigma: public or social stigma and self-stigma that interact to influence an individual's intentions to seek psychological services and actual help-seeking behaviours.

Self-stigma is the internalization of stereotypes related to seeking mental health services, resulting in negative self-perceptions (Wynaden, et. al., 2005). In regards to self-stigma, an individual may avoid seeking mental health services to avoid their internalized negative social attitudes about people with mental disorders, and subsequent diminished self-esteem. These two forms of stigma help explain why some individuals who are suffering from psychological distress do not seek treatment.

Stigma has been found to predict negative help-seeking attitudes and has been identified as a barrier to seeking services for a psychological problems among Asians (Komiya, Good, & Sherrod, 2000). Most Asians, including the Chinese, often feel stigmatized by mental health problems, believing that having psychological problems is shameful. Many

Chinese individuals attach a stigma to mental disorders because they believe that revealing problems outside of their family is a sign of immaturity, weakness, and a lack of self-discipline (Chang & Chang, 2004). They may also deny their mental health difficulties because they believe that these problems would shame the family. Masuda and Boone (2011) found that Asian American students were less likely than European Americans to seek professional services because they did not want to publicly admit their psychological problems.

In addition, Asian Americans were found to be more likely than European Americans to discuss problems related to academic and vocational concerns as opposed to emotional and psychological problems (Wong, Kim, & Tran, 2010). Similarly, in a qualitative study among Asian American community members, leaders, and health care professionals, Wynaden and colleagues (2005) found that stigma and shame are key factors in the reluctance to seek mental health services. Furthermore, among an Internet sample of Asian Americans and European Americans that screened positive for depression, Asian Americans were more likely to be embarrassed if their friends knew they were getting professional help for an emotional problem, to not want their employer to know that they were getting professional help for an emotional problem, and to believe that if they were depressed, their family would be disappointed (Wynaden et al., 2005). The present study explored self-stigma and its role in the help-seeking process among second generation Chinese Canadians.

Anticipated Benefits and Risks

According to the TPB, attitudes are predicted by a person's outcome expectations (Ajzen & Fishbein, 2005). If an individual anticipates a positive outcome for a specific behaviour (e.g., seeking help will make me feel better), then they will have a positive attitude (e.g., seeking help

is a positive action). However, if an individual anticipates a negative outcome for a specific behaviour (e.g., seeking help will make me feel ashamed), then they will have a negative attitude (e.g., seeking help is a negative action). Consistent with this perspective, anticipated benefits, and a closely related construct, anticipated risks, may influence one's attitudes about and intentions to seeking professional help for mental health concerns. According to Vogel and Wester (2003), anticipated utility or benefits refers to the perceived value of the outcome that will occur for the individual as a result of self-disclosing to someone such as a counsellor.

Anticipated risks refers to the perceived negative consequences of self-disclosure, such as losing face or going against one's family. Even though anticipated benefits and anticipated risks have both been found to be predictors for attitudes towards seeking help (e.g., Vogel & Wester, 2003; Vogel et al., 2006; Vogel et al., 2005), their influence on subjective norms and PBC has not been explored.

The Present Study

The present study used Ajzen's (1991) Theory of Planned Behaviour (TPB), a widely used and empirically robust model, to examine the help-seeking process among second generation Chinese Canadians. Second generation Chinese Canadians are often overlooked in the mental health literature due to erroneous assumptions of their better overall well-being, and their ability to navigate and access appropriate services because they are fluent in English. This may result in their mental health needs receiving less consideration than their parents' generation.

This study aims to contribute to the help-seeking body of knowledge. The current study examined the utility and generalizability of the TPB model in understanding the help-seeking process using cross-sectional data. Direct and indirect measures were used to measure the

TPB. Path analysis was used to test for both direct and indirect effects of the TPB constructs. The TPB model was extended by examining the effects of psychological and cultural variables on help-seeking attitudes, subjective norms, and PBC. Psychological distress and perceived social support were included as covariates in the present study.

Hypotheses

1. The TPB model is supported among the second generation Chinese Canadians. Specifically, attitudes, subjective norms, and PBC account for a significant amount of variance in predicting intentions to seek help.
2. Intentions and PBC account for a significant amount of variance in help-seeking behaviours.
3. In addition, subjective norms was predicted to be the strongest predictor of intentions for second generation Chinese Canadians.
4. Positive attitudes toward help-seeking lead to greater intentions to seek help.
5. a) Stronger adherence to European American values and lower adherence to Asian cultural values lead to more favourable attitudes toward seeking psychological help and more willingness to seek psychological help.

   b) Stronger adherence to Asian cultural values and lower adherence to European American values lead to unfavourable attitudes toward seeking psychological help and less willingness to seek psychological help.
6. a) Stronger Canadian identity and lower Chinese identity lead to more favourable attitudes toward seeking psychological help and more willingness to seek psychological help.

   b) Stronger Chinese identity and lower Canadian identity lead to more unfavourable attitudes toward seeking psychological help and less willingness to seek psychological help.

7. a) Higher anticipated risks and lower anticipated benefits lead to more unfavourable attitudes toward seeking psychological help and less willingness to seek psychological help.

   b) Higher anticipated benefits and lower anticipated risks lead to more favourable attitudes toward seeking psychological help and more willingness to seek psychological help.
8. Higher self-concealment was predicted to lead to negative attitudes toward seeking psychological help. Individuals who tend to withhold personally distressing information are likely hold more negative attitudes toward that process.
9. Higher self-stigma was predicted to negatively relate to attitudes, subjective norms, and PBC
10. Direct measures of the TPB will be more strongly associated with outcomes than indirect measures.
11. Indirect measures will yield more specific information about the help-seeking process.

CHAPTER III: METHODOLOGY

To study the utility of the TPB model in understanding help-seeking attitudes, subjective norms, perceived behavioural control, intentions, and behaviours in second generation Chinese Canadians and how psychological and cultural variables influence the help-seeking process, the following sections detail the participants, recruitment, measures, and procedure that were used.

Participants

Two hundred and twelve second generation Chinese Canadian adults, 95 (44.8%) male and 117 (55.2%) female, living in the Montreal area, participated in the present study. Eight participants did not meet the inclusion criteria for the study and were excluded. More specifically, five participants were excluded because one of the parents was born in Vietnam, Cambodia or Philippines. Three participants were excluded because they were born in Hong Kong, China or Taiwan, but immigrated to Canada at an age older than 5. Moreover, four participants who failed to complete at least one TPB measure were excluded.

The majority 170 (80.2%) were born in Canada and 42 (19.8%) immigrated to Canada before the age of 5. All participants have parents who were born and raised in China, Hong Kong, or Taiwan (Chinese ancestry). The age of the respondents ranged from 18 to 43, with an average of 26.67 years (SD=4.99). As for relationship status, 105 (49.5%) reported being single, 20 (9.4%) dating, 37 (17.5%) in a committed relationship, 10 (4.7%) engaged, 2 (0.9%) common-law, and 38 (17.9%) married. Only 21 (9.9%) of the sample reported having children. Sixty (28.3%) of the sample was atheist, 59 (27.8%) was Protestant, 28 (13.2%) was Buddhist, 25 (11.8%) was other, 22 (10.4%) was agnostic, and 18 (8.5%) was Catholic.

Recruitment and Administration Procedure

A sample size of 200 has been recommended to ensure precision for parameter estimates and confidence in fit indices (Chou & Bentler, 1995; Kline, 2005). The number of participants for the study was calculated using α=.05, a medium effect size (r = .20) and a power of .80 (Chou & Bentler, 1995). This calculation is based on the effect sizes typical in this area of research. Prior to data collection, approval from the Research Ethics Board (REB) of the University of Ottawa was obtained.

Respondents were recruited through Chinese cultural organizations, and through contact people either belonging to or involved with the Chinese community (e.g., churches, cultural organizations, sports, and clubs). Representatives of different organizations were contacted and were asked to promote the study within their organizations by forwarding emails, making announcements, and posting posters. Participants were also recruited through personal contacts and through "snowball" procedure involving family, friends, and local religious and community leaders. This involved emailing different online networking sites (e.g., Facebook) and asking family and friends to tell their family and friends about the study. Recruiting through online social networking sites involved contacting organizers of Chinese Canadian groups for permission to post the study information on their group sites and to forward email about the study to their group members.

Participants who contact the researcher and who are interested in the study were screened for the inclusion criteria. Then, the participant was given the choice to complete the questionnaire online or on paper by mail. Confidentiality and anonymity were ensured, and if chosen to be done by paper and pencil, each questionnaire was identified by an untraceable number. The questionnaire package included an information letter outlining the purposes of the

study, the confidential and anonymous nature of the study, and the participants' right to withdraw from the study at any time (see Appendix A). If online, the website, information, and procedures were provided to the participant (Appendix B). If the participant prefers to do the questionnaire in paper format, the researcher mailed out an envelope packet including all materials required for participation in the study. About 92% of the participants chose to complete the questionnaire online. Within the study packet, participants were first given an information form to read and review. The information page briefly describes the nature and purpose of the study. Before answering the questionnaire, each person read a consent form indicating the purpose of the study, the topics covered by the scales of the questionnaire, confidentiality, anonymity, the possibility of withdrawing study at any time, the possible negative consequences associated their participation, and the resources (Appendix C) available to the participants if they would feel the need to speak to a professional. Participants were assured that the questionnaires will be identified by an untraceable number in order to ensure confidentiality and anonymity. In addition, the form provided them with the contact information for the primary researcher and faculty member overseeing the project as well as the co-ordinates of "Protocol Officer for Ethics in Research" of the University for addressing any questions, concerns, or complaints concerning the study. Subsequently, if respondents wish to participate, they completed the questionnaire that typically took no more than one hour. Included was a stamped enveloped where they could mail the questionnaire back to the Cross-Cultural Lab at the University of Ottawa.

Participants were instructed to review a debriefing letter that details the background literature supporting the project, references to primary articles supporting the study, and contact numbers for support services and information about participants' rights after they complete the questionnaires. The list of contact information included mental health services

available within the local communities (Appendix C). All participants were given the opportunity to keep a copy of the debriefing letter for their personal records. As part of the debriefing process, participants were also be encouraged to ask questions and offer their comments and feedback about the study.

Measures

Participants were administered a questionnaire package with self-report measures to assess the theoretical constructs necessary to test the hypotheses of this study (see Appendix D). The majority of the measures were chosen for their high internal reliability and validity and for their relevance to the objectives of the study. The majority of the measures used in the present study were obtained from published articles. Certain measures were adapted for the present study. The Brief Symptom Inventory (BSI: Derogatis, 2000) is under copyright and permission to use this measure was purchased from Pearson Education Inc. Internal consistencies (Cronbach's alpha), calculated for this sample, are indicated in brackets for each measure. Measures included in the study:

a) Demographic Questionnaire
b) TPB Measure according to Ajzen's guidelines
c) Inventory of Attitudes toward Seeking Mental Health Services (IASMHS: Mackenzie, Knox, Gekoski, & Macaulay, 2004)
d) Subjective Norms: The Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000)
e) Perceived Behavioural Control: Self-Efficacy: Mental Health Efficacy – Revised (MHE-R; Sirois, 2003)

f) Perceived Behavioural Control : Multidimensional Mental Health Locus of Control – Revised (MMHLC-R form A; Wallston, Wallston, & DeVellis, 1978)

g) Intentions: Intentions to Seek Counselling Inventory – Cultural Revision (ISCI-CR; Cash, Begley, McCown, & Weise, 1975)

h) Brief Symptom Inventory 18 (BSI-18; Derogatis, 2000)

i) Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988)

j) The Asian American Values Scale-Multidimensional (AAVS-M: Kim, Li, & Ng, 2005)

k) The European American Values Scale for Asian Americans - Revised (EAVS-AA-R: Hong, Kim, & Wolfe, 2005)

l) Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992)

m) Family Allocentrism Scale (FAS; Lay, Fairlie, Jackson, Ricci, Eisenberg, Sato, and Melamud, 1998)

n) Self-Concealment Scale (SCS; Larson & Chastain, 1990)

o) The Disclosure Expectations Scale (DES; Vogel & Wester, 2003)

p) Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006)

Demographic Questionnaire. Respondents were administered a short demographic questionnaire requesting general background information: age, gender, place of birth, year arrived in Canada (if applicable), ethnic background of parents, immigration status, languages spoken, highest level of educational completed, marital status, occupation, religion, and identity label. In addition, all measurements, information letter, and the list of resources were in English.

Measures of TPB. To assess the social and cognitive determinants of help-seeking

according to the TPB, both direct and belief-based measures were used. A direct measure was constructed according to the guidelines set out by Azjen (2002) and other researchers (Francis et al., 2004) (Appendix E).

There are two schools of thought related to the construction of TPB questionnaires namely, items that inquire directly about the construct (direct measures) or items that refer to the determinants of the construct (belief-based measures) (Manstead, & Parker, 1995). Using a belief-based measure, attitudes are determined by salient behavioural beliefs weighted by an evaluation of the belief (outcome evaluations), subjective norms are determined by salient normative beliefs weighted by one's motivation to comply and PBC is determined by control beliefs weighted by the influence of said beliefs. When the two methods were compared, only modest correlations have been found (Ajzen, 1991). The reason is that the two methods inducing different responses with the direct measures evoking relatively automatic responses while belief-based measures require the respondents to use more careful deliberation.

Researchers have typically utilized direct measurements of the TPB constructs and have found that they are generally more strongly associated with behavioural intentions and behaviours (Gagne & Godin, 2000; Madden, Ellen, & Ajzen, 1992; Notani, 1998). However, the question of whether to utilize direct or belief-based items to measure the TPB constructs remains unresolved and research examining the predictive validity of utilizing each method is mixed (Ajzen, 1991). Ellen and Madden (1990) found that a measure requiring more concentration and deliberation on the part of the respondents yielded higher predictive validity of attitudes, intentions, and behaviours. Researchers generally recommend utilizing a measure that include both direct and belief-based items as the latter allows researchers to include additional factors that may influence attitudes, intentions, and behaviours (Ajzen, 2006;

Manstead & Parker, 1995).

In the current project, I opted to utilize both direct and belief-based measures of the TPB model. This was done because of the lack of research and understanding of the help-seeking process among Canadian-born Chinese population in Canada. Using this theoretical framework and using both direct and belief-based measure provided us with a deeper understanding and clearer picture of the overall help-seeking process.

Direct TPB Measure According to Ajzen's Guidelines

Consistent with the manuals and research on measure development in the Theory of Planned Behaviours (TPB; Ajzen, 2006; Francis et al., 2004), the target behaviour was specified in terms of its' target action, context, and time in order to operationalize the behaviour in question. The questions were initially drafted following the model set forth by Ajzen (2006).

The questions were reviewed by the members of the research group and my committee to determine the nature and wording of the items (See Table 2). In addition to developing a TPB measure based on Ajzen's guidelines, the TPB constructs were also measured using self-report measures used in the help-seeking research literature. To assess the theoretical constructs necessary to test the hypotheses of this study, the TPB constructs included: help-seeking intentions and behaviours, attitudes, subjective norms (family and cultural stigma), and perceived behavioural control (self-efficacy and locus of control).

Table 2

TPB Measure According to Ajzen's Guidelines

Construct	Item
Past Behaviour	In the past, have you seen a mental health professional (counselor/psychotherapist, psychologist, psychiatrist, or other health care provider) for emotional problems?
Intentions	The next time I experience anxiety which causes significant distress or interferes significantly with my daily functioning, I intend to talk to a mental health professional The next time I experience depression which causes significant distress or interferes significantly with my daily functioning, I intend to talk to a mental health professional The next time I experience stress which causes significant distress or interferes significantly with my daily functioning, I intend to talk to a mental health professional
Attitudes	Seeking professional mental health treatment IF I am experiencing psychological problems would be… (rate from good…bad) (rate from wise…foolish) (rate from helpful…unhelpful) (rate from useful…useless) (rate from acceptable…unacceptable)
Subjective Norms	If I am experiencing a psychological problem, most people/my family/my partner/my friends/my Chinese community/my Canadian community would want me to seek professional mental health treatment.
Compliance	I would want to comply with what most people/my family/my partner/friends/my Chinese community/my Canadian community wanted me to do
Perceived Behavioural Control	If I were experiencing psychological problems (e.g., anxiety, sadness, stress), how confident would I be asking for professional mental health treatment. (Confidence) If I were experiencing psychological problems, how much control would I have over whether or not I seek professional mental health treatment. (Control)

Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS: Mackenzie, Knox, Gekoski, & Macaulay, 2004). The IASMHS is a 24-item scale designed for measuring attitudes toward seeking help for psychological problems. Each item is presented as a statement and is scored on a 5-point Likert scale (0 = Disagree, to 4 = Agree). The 24 questions are categorized into three different factors: psychological openness, help-seeking propensity, and indifference to stigma. According to Mackenzie and colleagues (2004), the scale was developed according to the guidelines of the TPB whereby the psychological openness factor reveals the individual's attitudes toward seeking professional help. The factor named indifference to stigma reveals the individual's concern of what others might think if they were to find out the person is seeking professional psychological help (subjective norms). The final factor of help-seeking propensity factor reveals the individual's belief in their capability to seek professional help (perceived behavioural control). (Mackenzie, Knox, Gekoski, & Macaulay, 2004). Each factor score is the sum of the structure item scores. Higher scores on the IASMHS indicate a positive attitude toward seeking professional help for psychological problems. The Pearson correlation coefficients between test and retest scores for the total IASMHS score is moderately strong at 0.85. The subscales of this measure was used to test the TPB model. In addition, the subscale of the psychological openness factor, which is equivalent to the individual's attitudes toward seeking professional help, was used as a measure of attitudes.

The Cronbach's alpha values for the IASMHS in the present study are as follows: Full-Scale (α = .81), Psychological Openness (α = .73), Indifference to Stigma (α = .72), and Help-Seeking Propensity (α = .67). The following Test-Retest reliability coefficients for the IASMHS were found: Full-Scale *(r* = .85), Psychological Openness *(r* = .86), Help-Seeking Propensity *(r* =

.64), and Indifference to Stigma *(r* = .91) (Mackenzie, Knox, Gekoski, & Macaulay, 2004).

Subjective Norms: Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000). Family and cultural stigma for seeking psychological help was measured by the SSRPH. The scale includes 5 items and assesses an individual's perception of the stigma that would result from seeking professional psychological services. The items are rated on a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree), and higher scores represented a greater degree of stigmatizing feelings as a result of receiving mental health services. For the purposes of this study, items were modified in order to assess stigma from an individual's family and culture as opposed to the general public. Therefore, the phrases "in my family" (e.g., "Seeing a psychologist for emotional or interpersonal problems carries a stigma *in my family*) and "in my racial/ethnic group or culture" (e.g., "Seeing a psychologist for emotional or interpersonal problems carries a stigma *in my racial/ethnic group or culture*) were added to the end of each of the five questions to assess the family and ethnic/culture-related stigma, respectively.

The internal consistency for the measure was originally .73, and was found to be negatively related to attitudes towards seeking psychological help (*r* = -.40; Komiya, Good, & Sherrod, 2000). Subscale internal consistency reliability estimates for the family and cultural stigma have been reported α = .89 and α = .91, respectively (Vogel, Wester, Wei, & Boysen, 2005). In the present study, the internal consistency was excellent: Chinese stigma (α = .93) and Canadian stigma (α = .93).

Perceived Behavioural Control: Self-Efficacy: Mental Health Efficacy – Revised (MHE-R; Sirois, 2003). The mental health specific self-efficacy was measured with the Health Efficacy subscale of the Control Beliefs Inventory. This subscale contains eight-items that

assesses feelings of competence and confidence in being able to carry out actions important to maintaining and taking care of one's health. Respondents rate the extent to which each statement applies to them on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree). The health efficacy subscale has demonstrated good psychometric properties; internal consistencies ranging from α = .82 to .86 (Sirois, 2003). The term 'mental health' was used to replace the word 'health' (e.g., "I am confident that I can successfully look after my mental health"). In the present study, the self-efficacy scale demonstrated good internal consistency (α = .85).

Perceived Behavioural Control: Multidimensional Mental Health Locus of Control – Revised (MMHLC-R form A; Wallston, Wallston, & DeVellis, 1978). The mental health locus of control was measured with the MMHLC-R. This scale consists of 18-items rated on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strong Agree). This scale contains three 6-item subscales: Internality (beliefs in internal or personal control over mental health), Powerful Others (such as mental health professionals, family and friends), and Chance (external locus of control or beliefs in chance and fate). The internal consistency of the scale has been reported to range between 0.62 to .76 (Kuwahara et al., 2004). The term 'mental' was added to wherever appropriate (e.g., "If I take care of myself, I can avoid mental illness"). In the current study, the internal consistency for the scale was adequate (α = .70).

Intentions: Intentions to Seek Counselling Inventory – Cultural Revision (ISCI-CR; Cash, Begley, McCown, & Weise, 1975). Intention and willingness to seek treatment was assessed with the ISCI-CR, a 17-item scale. The ISCI-CR lists issues including: weight control, excessive alcohol use, relationship difficulties, concerns about sexuality, depression, conflicts with parents, speech anxiety, difficulties dating, choosing a major, difficulty in

sleeping, drug problems, feelings of inferiority, test anxiety, difficulties with friends, academic work procrastination, self-understanding, and loneliness. For each personal problem, respondents were instructed to rate how likely they would be to seeking professional psychological help if they were experiencing that problem using a 6-point Likert scale (1 = Very Unlikely to 6 = Very Likely). The ratings are summed to derive a total score, with higher scores indicating a greater likelihood of seeking professional psychological help for various personal and emotional problems. This scale has been used in many previous studies examining levels of intention and willingness to seek counselling across many different cultures.

Internal consistency estimates of the ISCI range from α= .84 to .90 (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Kahn & Williams, 2003). Cepeda-Benito & Short (1998) factor analyzed the scale and demonstrated high reliability, α = .90, and was similar for college students, α = .87 (Vogel, Wade, & Hackler, 2007). The ISCI has been found to be correlated with positive attitudes towards seeking psychological help (*r* = .36-.61; Kelly & Achter, 1995; Vogel & Wester, 2003). Reports of psychometric properties for culture-specific modifications of the ISCI among samples of ethnic minority group members have been reported. For example, Liao, Rounds, and Klein (2005) and Solberg and colleagues (1994) reported good internal consistency reliability estimates (α= .94 - .97) among samples of Asian descent.

For the purposes of this study, the ISCI was slightly modified. In reviewing the literature with regard to the types of problems experienced by people of Chinese descent (e.g., Sue & Sue, 2002), additional items were included in the ISCI: physical health problems, exploring ethnic identity, and emotional reactions to racism, prejudice, and discrimination. In the present study, the intentions scale demonstrated excellent internal consistency (α = .93).

Brief Symptom Inventory 18 (BSI-18; Derogatis, 2000). In the present study,

psychological distress was evaluated using the BSI-18. This measure is an 18-item standardized self-report inventory designed primarily to screen for psychological disintegration and psychiatric disorders in medical and community populations. It is the latest version of an integrated series of test instruments (BSI; Derogatis, 1993, and the SCL-90-R) designed to measure psychological distress. The measure has demonstrated high levels of sensitivity and specificity in screening medical populations (e.g., Zabora, Smith-Wilson, Fetting, & Enterline, 1990). The BSI-18 was selected because it measures mental health outcomes that have been associated with exposure to race-related stressors, namely depression, anxiety, somatization (physiological manifestations of distress) and overall psychological distress. The BSI consists of three primary symptoms dimension measured with six items each (depression, anxiety, somatization) and one global or total score (GSI). Depression items assess clinical depression symptoms such as dysphoria, anhedonia, and self-deprecation; anxiety items measure symptoms of nervousness, tension, motor restlessness, and apprehension; somatization items reflect distress caused by perceived bodily dysfunction; the global severity index summarizes the respondent's overall level of psychological distress.

Participants were instructed to indicate the degree to which they have experienced psychological symptoms for at least one-week during the past year, using a 5-point Likert scale (0 = Not at all to 4 = Extremely). To compute subscale scores, the values for the six item responses for each dimension are summed and the resultant raw scores are converted to standardized T scores. To calculate the GSI, the raw scores for the symptom dimensions are summed and converted to standardized T scores. The BSI-18 offers satisfactory internal consistency reliability: depression (.84), anxiety (.89), and somatization (.74). Tests of construct validity between the BSI-18 and the SCL-90-R instrument, demonstrates a strong,

highly significant correspondence between the two sets of subscale scores, suggesting that their measurement of the construct has suffered little or no alteration. In the present study, the internal consistency was excellent (α = .92).

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a measurement for perceived social support (emotional, instrumental, informational and appraisal) from three sources: significant other, family, and friends. The MSPSS is rated on a 7-point Likert-type scale (1 = Strongly Disagree to 7 = Strongly Agree). Higher scores represent higher levels of perceived social support. Sample items include "There is a special person with whom I can share my joys and sorrows," "My family really tries to help me," and "I can talk about my problems with my friends." The Cronbach's coefficient alpha values in the original article were: significant other (.91), family (.87), and friends (.85) subscales (Zimet, Dahlem, Zimet, & Farley, 1988. In the Chinese version of the MSPSS, the internal consistency coefficient (Cronbach's alpha) of the total scale was .89 in a Hong Kong Chinese adolescent sample (Chou, 2000). The MSPSS was selected for this study due to its practicality as the best conceptual match for the measurement of perceived social support. Several research studies (Chou, 2000; Edward, 2004, Friedlander et al., 2007; Kazarian & McCabe, 1991; Meehan & Negy, 2003) indicated the usefulness of the instrument in measuring perceived social support in the college student populations. In the present study, the internal consistency coefficient demonstrated to be good (α = .87).

The Asian American Values Scale-Multidimensional (AAVS-M: Kim, Li, & Ng, 2005). The AAVS-M was used to measure adherence to Asian cultural values. The AAVS-M is a 42-item self-report measure containing five subscales assessing Collectivism, Conformity to Norms, Emotional Self-Control, Family Recognition Through Achievement, and Humility.

Sample items include "One should recognize and adhere to the social expectations, norms and practices" (Conformity to Norms); "One's academic and occupational reputation reflects the family's reputation" (Family Recognition Through Achievement); and "One should not express strong emotions" (Emotional Self-Control). Participants indicate their responses to items using a seven-point Likert scale ranging from 1 = Strongly Disagree to 7 = Strongly Agree. In order to obtain a total score for the complete measure, all items are added together. For the current study, only the total score for Asian American values were used in the analyses of the relationships among the variables of interest. Kim et al. (2005) reported a coefficient alpha of .89 for the AAVS-M total. Two-week test-retest reliability coefficients for the AAVS-M total was reported as .92. In the current study, the internal consistency for the Asian American Values scale was good (α = .86).

The European American Values Scale for Asian Americans - Revised (EAVS-AA-R: Hong, Kim, & Wolfe, 2005). The EAVS-AA-R is a 25-item self-report measure of Asian Americans' adherence to European American Values (e.g., "I can do anything I put my mind to". Each item is rated on a 4-point Likert scale, 1 = Strong Disagree to 4 = Strong Agree, where higher scores represent high adherence to European American values. For the current study, only the total score for European American values were used in the analyses of the relationships among the variables of interest. Hong, Kim and Wolfe (2005) reported a coefficient alpha of .78. In the present study, the internal consistency for the European American Values scale was adequate (α = .63).

Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). Ethnic identity was assessed using an adaptation of the MEIM. This 12-item scale measures participants' ethnic identification. For each item, participants indicated their level of agreement or disagreement

with each statement on a 4-point scale (1 = Strongly Disagree to 4 = Strongly Agree). Higher scores on the scale indicate higher levels of ethnic identification or commitment to an ethnic culture. The measure involves two factors: Ethnic identity search (a developmental and cognitive component) (e.g., "I understand pretty well what my ethnic group membership means to me" and affirmation, belonging, and commitment (an affective component) (e.g., "I feel good about my cultural/ethnic background" (Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999).

For the purposes of this study, items were modified to assess both Chinese identity and Canadian identity, allowing the measure of bi-cultural identities. Many studies have found this scale to be a reliable and valid measure for ethnically diverse groups (Phinney, 1992 & 2003; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999; Worrell, 2000). Overall reliability of the scale was .81 for high school students and .90 for college students. Worrell (2000) also found the scale to be reliable (r = .89) when examining a sample of 275 academically talented and ethnically diverse adolescents. In the present study, the internal consistency for the scale was good for Chinese Identity (α = .89) and Canadian Identity (α = .89).

Family Allocentrism Scale (FAS; Lay, Fairlie, Jackson, Ricci, Eisenberg, Sato, and Melamud, 1998). The FAS is a 21-item scale that asks participants about their connectedness to their family. Allocentrism-Idiocentrism is a within cultural individual difference variable that is comparable to the cross-cultural construct of individualism–collectivism (Triandis, 1995). The items are both cognitively and emotionally oriented. Respondents indicate the extent to which they agree on each item on a 5-point scale (1 = Strongly Disagree to 5 = Strongly Agree). Higher scores indicate high family allocentrism and lower scores indicate high family idiocentrism. Internal consistency values have been obtained

from several studies with alpha coefficients ranging from .73 to .85 (Lay et al., 1998). In the present study, the internal consistency for the scale was good (α = .83).

Self-Concealment Scale (SCS; Larson & Chastain, 1990). The SCS is a 10-item measure that assesses the predisposition to conceal personal information from others. The scale instructs respondents to rate their level of endorsement using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The SCS yields a total score by summing the responses to each item. Higher scores on the SCS indicate greater self-concealment. Larson and Chastain (1990) reported good internal consistency reliability (α = .83) for the SCS. The authors also reported test-retest reliability over four weeks and inter-item reliability as *r* = .81 and *r* = .83, respectively.

For the purposes of this study, the SCS was slightly modified because the language used in the scale appeared to be outdated. The word "secret" was replaced by "emotional issue" wherever applicable (e.g., "I have an emotional issue that is so private I would lie if anybody asked me about it").

Cramer and Barry (1999) further evaluated the psychometric properties of the SCS among a university student samples. The results of the study provided additional support for the internal consistency reliability (α = .83 - .87) and test-retest reliability (*r* = .74). Other studies that have used the Self-Concealment Scale among various university student samples report similar psychometric properties (e.g., Cepeda-Benito & Short, 1998; Cramer & Lake, 1998, Ichiyama et al.,1993; Kelly & Achter, 1995; King, Emmons, & Woodley, 1992; Wallace & Constantine, 2005; Ritz & Dahme, 1996). Of particular interest to the present study is Liao, Rounds, and Klein (2005) report of good internal consistency reliability (α = .85) among both samples of Asian and Asian American college students. In the present study, the internal

consistency for the scale was excellent (α = .90).

The Disclosure Expectations Scale (DES; Vogel & Wester, 2003). The DES is an eight-item measure assessing participants' expectations about the benefits and risks associated with talking about an emotional problem with a counsellor. Anticipated benefits and risks are each measured by four items rated on a Likert-type scale (1 = Not at all to 5 = Very*)*. Responses are summed for each subscale, with higher scores reflecting greater anticipated benefits and greater anticipated risks. The Anticipated Benefits subscale consists of items such as "How helpful would it be to self-disclose a personal problem to a counsellor?" and The Anticipated Risks subscale consists of items such as "How risky would it feel to disclose your hidden feelings to a counsellor?". Factor analysis has revealed two factors that are only minimally correlated (*r* =.19; Vogel & Wester, 2003). The internal consistencies for the scales have been reported as .83 for Anticipated Benefits and .74 for Anticipated Risks (Vogel & Wester, 2003). The internal consistencies for the scales in the current study were good: Anticipated Benefits (α = .82) and Anticipated Risks (α = .82).

Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006). The SSOSH includes 10 items and assesses the extent to which individuals internalize stigmatizing feelings related to seeking mental health services (e.g., "I would feel inadequate if I went to a therapist for psychological help"). The items are rated on a 5-point Likert scale, (1 = Strongly Disagree to 5 = Strongly Agree), where higher scores represented greater levels of self-stigma. The SSOSH has no subscales and items 2, 4, 5, 7, and 9 are reverse-scored. The scale has demonstrated satisfactory psychometric properties with reliability ranging from α = .86-.91 and two-week test-retest (*r* = .72) reliabilities (Vogel, Wade, & Haake, 2006). Also, validity has been demonstrated through correlations with attitudes towards professional help-seeking (r =

.65) and intentions to seek counselling (r = .37) among a college student sample (Vogel, Wade, & Haake, 2006). In the present study, the self-stigma scale demonstrated good internal consistency (α = .86).

CHAPTER IV: RESULTS

Overview of the Analyses

In the following sections, a description of the process of screening and cleaning, descriptive statistics along with demographic characteristics, and preliminary analyses are described. Then, the first research objective is presented (e.g., significant correlations, path analyses for the Theory of Planned Behaviour measured in three different ways (a) Ajzen's TPB, (b) TPB by The Inventory of Attitudes toward Seeking Mental Health Services, and (c) TPB using questionnaires from the help-seeking literature. Finally, the second research objective will be presented (e.g., significant correlations and multiple regression analyses exploring cultural and psychological variables in predicting attitudes, subjective norms, and perceived behavioural control). The chapter ends with a summary of the key findings from this study.

Data Screening and Cleaning

Prior to analysis, the variables relevant to the current study (i.e., demographic information, predictor and outcome variables) were examined for data entry errors, missing values, normality, homoscedasticity, and homogeneity of variances following the guidelines set out in Tabachnik and Fidell (2007) in SPSS version 20.0. Data entry was verified by conducting frequency analyses on all the pertinent variables to ascertain whether the values fell within the appropriate ranges. Scores that were incorrectly entered were rescored as "missing". An analysis of the missing data was then conducted and results indicated that 5.93% of the data was missing. Given the small percentage of missing values, a single imputation of missing values was performed using the SPSS version 20.0 statistical analysis software.

Concerning the predictor and outcome measures, regression diagnostics were

completed to determine whether the data met the assumptions of multiple regression analyses and whether any outliers existed. In examining regression diagnostics, residuals plots are examined to assess for the violation of assumptions such as normality, equal variance, and linearity. The results of these assessments with the current data set indicate that family connectedness, perceived social support, and Ajzen's theory of planned behaviour variables (attitudes, subjective norms, compliance, confidence, and control) were significantly negatively skewed. The distress variable was found to be significantly positively skewed. These variables were transformed as suggested by Tabachnik and Fidell (2007) before conducting bivariate correlations, multiple regressions and path analyses. Logarithmic transformation improved normality of the family connectedness, attitudes, subjective norms, compliance, confidence, and control variables while square root transformations improved the normality of the rest of the variables. A graphical method (i.e., histograms) of each variable was used to compare with normal distributions for evaluating normality. To assess for univariate and multivariate outliers, the use of scatterplots was examined and no data points were deemed to be significant univariate outliers.

An examination of multivariate outliers for each of the proposed regression models revealed a number of cases such that the probability of obtaining the mahalanobis distances was less than 0.01. These cases were eliminated from the corresponding regression analyses. The final dataset contained variables that had distributions that were appropriate for subsequent statistical analyses. Additionally, alpha levels were set at 0.05 for the subsequent statistical tests.

Descriptive Statistics

The frequency and percentage of the participants' demographic and background

characteristics are presented in Table 3. On average, this sample of second generation Chinese Canadian endorsed low levels of overall distress (M = .68, SD = .64), depression (M = .87, SD = .81), anxiety (M = .68, SD = .72), and somatic (M = .48, SD = .64) symptoms. Furthermore, the participants reported mild levels of overall perceived social support (M = 5.37, SD = 1.05). More specifically, mild levels of perceived support from significant other (M = 5.24, SD = 1.93), family (M = 5.14, SD = 1.34), and friends (M = 5.72, SD = 1.09). Greater psychological distress was associated with less positive attitudes, less confidence, less control and less intentions to seek help. Perceived social support was not associated with intentions or behaviours. However, it was associated with confidence. These findings provide support for the inclusion of psychological distress as a covariate in the hypothesized path models. See Table 3 for correlations between covariates and TPB variables.

Table 3

Correlations for Co-variates and TPB Variables

Variables	Psychological Distress (BSI)	Perceived Social Support
TPB Attitudes	-.16*	-.06
TPB Subjective Norms	.06	.09
TPB Confidence	-.19*	.18**
TPB Control	-.26**	.13
TPB Intentions	-.21**	.12
Behaviours	.09	-.08
Attpo	-.25**	.13
Attits	-.27**	.13
Attsp	.22**	.17*
Intentions	-.02	.04
Chinese Stigma	.12	-.07
Canadian Stigma	.23**	-.02
Self-Efficacy	-.36**	.26**
Locus of Control	-.14*	.07

Note. *p < .05, **p < .01
attpo = psychological openness, attis = indifference to stigma, attsp = help-seeking propensity

Help-Seeking Behaviours

Results from the self-report measure of help-seeking behaviours (past and current) suggest that a small portion of participants reported having sought help. In examining the present data, 15.6% (n = 33) reported having seen a mental health professional in the past for emotional problems and 2.8% (n = 6) reported seeing a mental health professional currently for emotional problems (see Table 4 for participant demographic, background characteristics, and behaviours). The high frequency of participants reporting that they had not sought help was to be expected from the literature and that only a small proportion of Canadian-born Chinese would seek help. For the purpose of this study, only the measure of past help-seeking behaviours was used.

Participants were asked two additional questions pertaining to the race of the therapist if they were considering seeking help. For the first question, "If I was considering therapy for help in dealing with personal or emotional problems, the race of the therapist would be important to me", on average, the participants reported finding the race of the therapist not important (M = 2.49, SD = 1.20). For the second question, "If I was experiencing personal or emotional problems, I would be more willing to seek therapy if I knew the therapist was Chinese or of Chinese origin", the participants were not more willing to seek help if the therapist was Chinese or of Chinese origin (M = 2.41, SD = 1.14).

Table 4

Participant Demographic and Background Characteristics (N = 212)

Variable	Frequency	Percentage
Gender		
Female	117	55.2
Male	95	44.8
Country of Birth		
Canada	170	80.2
HK	26	12.3
China	9	4.2
Taiwan	1	0.5
Other	6	2.8
Immigration Status		
Canadian citizen by birth	170	80.2
Canadian citizen by naturalization	27	12.7
Landed immigrant	15	7.1
Relationship Status		
Single	105	49.5
Dating	20	9.4
Committed Relationship	37	17.5
Engaged	10	4.7
Common Law	2	0.9
Married	38	17.9
Education		
Primary	0	0
Secondary	7	3.3
College	47	22.2
Undergraduate Degree	135	63.7
Graduate Degree	23	10.8
Religion		
Buddhist	28	13.2
Catholic	18	8.5
Protestant	59	27.8
Agnostic	22	10.4
Atheist	60	28.3
Other	25	11.8

Table 4 Continued

Participant Demographic and Background Characteristics (N = 212)

Variable	Frequency	Percentage
Employment Status		
Full-time	117	55.2
Part-time	24	11.3
Unemployed	6	2.8
Student	65	30.7
Identity Label		
Canadian	34	16.0
Anglo-Canadian	10	4.7
French-Canadian	5	2.3
Asian	9	4.2
Chinese	12	5.7
Chinese Canadian	63	29.7
Canadian Chinese	64	30.2
Taiwanese	1	.5
Mandarin	0	0
Cantonese	3	1.5
Hong Konger/Hong Kong Chinese	4	1.9
Immigrant	0	0
Visible Minority	1	.5
Other	6	2.8
Past help-seeking behaviour		
Yes	33	15.6
No	179	84.4
Mental Health Professionals		
Counsellor	10	30.3
Psychologist	7	21.2
Psychiatrist	1	3
Physician	1	3
Counsellor & Psychiatrist	1	3
Counsellor & Physician	1	3
Counsellor, Psychologist & Physician	3	9.2
Psychologist & Physician	4	12.1
Counsellor, psychologist, psychiatrist & physician	5	15.2

Table 4 Continued

Participant Demographic and Background Characteristics (N = 212)

Variable	Frequency	Percentage
Current help-seeking behaviour		
Yes	6	2.8
No	206	97.2
Mental Health Professionals		
Counsellor	1	16.6
Psychiatrist	1	16.6
Physician	1	16.6
Counsellor, Psychologist & Physician	1	16.6
Psychologist & Physician	1	16.6
Missing	1	16.6

Objective #1 (a) Testing the Theory of Planned Behaviour Using Ajzen's Measure

Since the measures of the TPB constructs were designed for the current study as per instructions of Azjen (2003), an examination for the internal consistency of the measure was completed by examining the Pearson product-moment correlation coefficients among the indicators, the means and standard deviations (see Table 5). The construct of Perceived Behavioural Control is the combination of the two items (Confidence & Control). Even though they were combined for the examination of internal consistency, the following analyses will utilize them as single item measures of confidence and control towards help-seeking intention and behaviour respectively. While single item measures for psychological constructs are discouraged due to low reliability, some researchers have advocated that they may be useful for assessing global constructs (e.g., quality of life: Zimmerman, Ruggero, Chelminski, Young, Posternak, Friedman, et al., 2006), when holistic impressions are desired (Younblut & Casper, 1993), or when multiple-item instruments are not suitable due to limited resources (Cunny & Perri, 1991).

Table 5

Mean, Standard Deviations, and Psychometric Properties of the Subscales of Ajzen's TPB Measure Assessing Help-Seeking Intention and Behaviour

Variable	N	M	SD	Potential Range	Actual Range
Attitudes	212	6.22	.83	1-7	1-7
Subjective Norms	212	4.99	1.82	1-7	1-7
Compliance	212	4.75	.99	1-7	1-7
Perceived Behavioural Control	212	5.45	1.30	1-7	1-7
Intentions	212	4.40	1.89	1-7	1-7

Note. N=Number of participants, M=Mean, SD=Standard deviation

To test the hypothesis that help-seeking behaviours are predicted by help-seeking intentions, and that help-seeking intentions are predicted by attitudes towards help-seeking, subjective norms and compliance about help-seeking, perceived behavioural control, and perceived behavioural confidence over help-seeking, correlational and path analyses were conducted. For the current analyses, a significance level was set at $p < .05$.

Pearson's correlational analyses were conducted to explore the relationships between behaviours, intentions, and each of the TPB constructs and the results are summarized below in Table 6. Upon inspection, the most significant correlations with behaviours were confidence and intentions. Furthermore, the most significant correlations with intentions were confidence, attitudes, subjective norms, and control. The correlations varied from moderate rs (212) =.22, p<.001 to strong rs (212) =.59, p<.001. Except for compliance, all predictive constructs were significantly correlated with each other (p<.01) as hypothesized by the TPB model.

Multicollinearity was assessed by examining the tolerance value, which indicates the degree to which one predictor can be predicted by other predictors in the model, and the variance inflation factors, which assesses whether a strong linear association exists between the predictor and the remaining predictors. Within the context of examining a model, the presence of multicollinearity may impair the ability to determine the effect of individual predictors on the criterion variable. Furthermore, multicollinearity may result in an inflation of standard errors for the involved variables, inflate any biases, and result in an overfitting of the regression model. An examination of these two methods suggests that multicollinearity was not an issue.

Table 6

Correlations for Ajzen's TPB Variables

Variable	1	2	3	4	5	6	7
1. TPB Attitudes		.32**	.13	.41**	.27**	.35**	.10
2. TPB Subjective Norms			.38**	.23**	.21**	.24**	.01
3. TPB Compliance				.00	.07	.07	-.08
4. TPB Confidence					.42**	.59**	.25**
5. TPB Control						.22**	.08
6. TPB Intentions							.23**
7. Past Help-Seeking Behaviours							

Note. $*p < .05$, $**p < .01$.

Path Analysis

In order to examine the full TPB model, a path analysis was conducted. Path analysis is an appropriate and commonly employed statistical method for assessing the fit between a pre-specified causal model and the observed set of correlations between variable in the model (Garson, 2004; Stage, Carter, & Nora, 2004). In this type of analysis, the goal is to provide estimates of both the magnitude and significance of the hypothesized causal connections among all the sets of variables in the path diagrams.

Many researchers have used path analysis in empirical investigations as it allows them to examine both direct and indirect, or mediating, effects simultaneously within the context of multiple independent and dependent variables (Stage, Carter, & Nora, 2004). As such, it allows for the decomposition of the relationships among all the variables. Additionally, the analysis allows for the testing of hypothesized relationships within a theoretical model and to examine how well the model fits the correlation matrices (Hu & Bentler, 1999).

Following the recommendations set out by Hu and Bentler (1999), Kline (2005), and Bollen and Long (1993), a number of goodness of fit indices were used in the present analyses, including indices of absolute fit, indices of relative (incremental) fit, and indices of fit with a penalty for lack of parsimony. These indices included the traditional chi square model test which tests the null hypothesis that the overidentified (reduced) model fits the data as well as the just-identified (full, saturated) model. A non-significant result on this test is desired. However this test may yield Type 1 errors, particularly with sample sizes above 200 (Kenny, 2003).

Within the incremental fit indices, the Bentler-Bonett Index or Normed Fit Index (NFI) is typically used and values above .95 signify a good fitting model while values in between .90

and .95 are deemed acceptable or marginal. However, with the large number of parameters in the current model, the Tucker-Lewis Index (TLI) or Non-normed Fit Index (NNFI) is generally recommended as it takes into consideration the number of parameters (Kenny, 2003). The interpretation of results is the same as the NFI.

Lastly, the root mean square error of approximation (RMSEA), an absolute measure of fit, is another commonly reported goodness of fit indices. This measure assesses how well the proposed model, with unknown but optimally chosen parameter estimates, fits the population covariance matrix (Hooper, Couglan, & Mullen, 2008). Despite its popularity, some limitations have been noted. Recently, Kenny and colleagues (2011) have suggested that RMSEA values are overestimated in models with smaller samples and models with very small degrees of freedom. In terms guidelines for interpretation, since the original development of the RMSEA, the proposed cut-offs have varied considerably over time. While some researchers have suggested cut off scores of 0.05, others have posited that cut off of 0.08 signifies an acceptable fit (Hu & Bentler, 1999; MacCallum, Browne, & Sugawara, 1996; Stage, Carter, & Nora, 2004). Then again, Browne and Cudeck (1993) have noted that a RMSEA greater than 0.10 indicates a poor-fitting model.

As noted above, path analyses is a useful tool; however, a number of criticisms and limitations have been raised (Everitt & Dunn, 1991; Lea, 1997). One major limitation raised by researchers is that causal inferences cannot be made since the analyses are based on correlational relationships (Everitt & Dunn, 1991; Lea, 1997). As such, theoretical knowledge of the model is critical in the use of path analyses and caution must be used in the interpretation of results.

In the analyses reported below, we chose several indices of fit, based on the

recommendations of Kline (1998): χ^2/df, CFI, TLI, SRMR, and RMSEA. For χ^2/df, called the normed chi-squared, values below 5 are considered adequate and values below 3 are considered good (Kline, 2005; Schumacker & Lomax, 2004). For RMSEA, values below .08 are considered adequate and values below .05 are considered good (Browne & Cudeck, 1993), and a value below .08 for the upper end of the 90% confidence interval is considered good (Hu & Bentler, 1999). For the CFI and TLI (also called the NNFI), values above .90 are considered adequate and values above .95 are considered good (Hu & Bentler, 1999). For SRMR, values below .10 are considered adequate, and values below .05 are considered good (Hu & Bentler, 1999). In addition, the AIC was used when comparing the fit of two models; the model with the smaller AIC is considered to be the model with the better fit (Kline, 1998).

The input diagram of the TPB model is located in Figure 2. Within this model, the measures of attitudes, subjective norms, compliance, perceived behavioural confidence and control are hypothesized to predict intentions. Moreover, intentions and perceived behavioural control are hypothesized to predict the measure of behaviour.

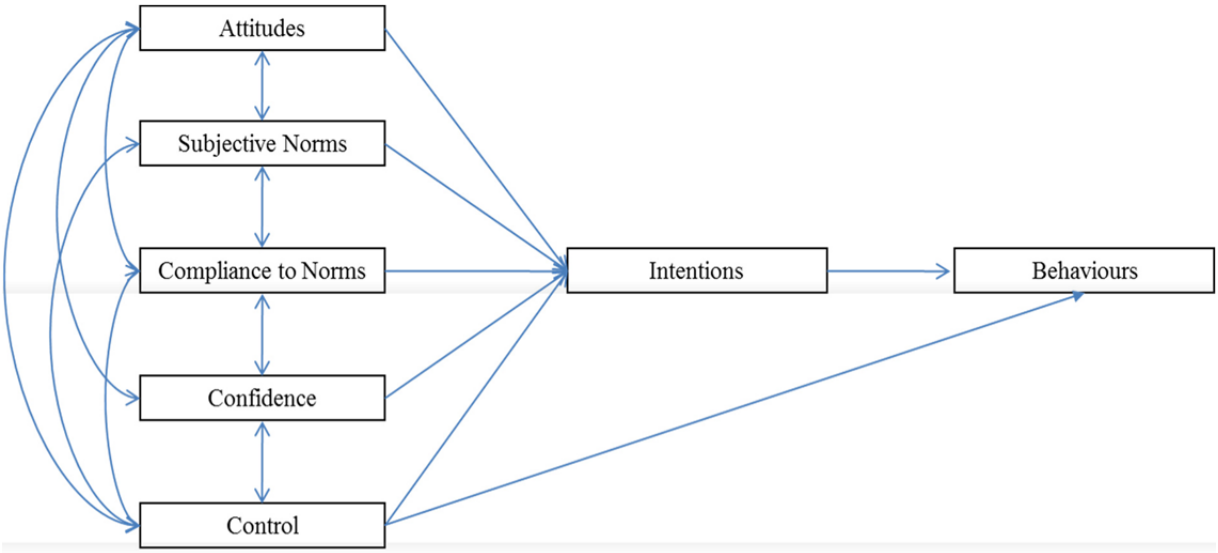

Figure 2. Ajzen's TPB input path model.

The χ^2 test generated a value of 6.87 which, evaluated with 4 degrees of freedom, had a corresponding p= .165. The non-significant result indicated that the model was a good fit for the data. Given that sample sizes above 200 generally yield significant results (Kenny, 2003), the results are deemed robust. An examination of additional indices suggest good fit (CMIN= 1.72, CFI= .99; TLI = .94). Lastly, a RMSEA value of .06, 90% confidence interval of RMSEA= 0.00 to 0.13, indicates a good fit according to MacCallum, Browne, and Sugawara (1996).

Direct and indirect effects. The path diagram, displayed in Figure 3, displays the standardized and unstandardized (in brackets) coefficients for the TPB model examining help-seeking intentions and behaviours.

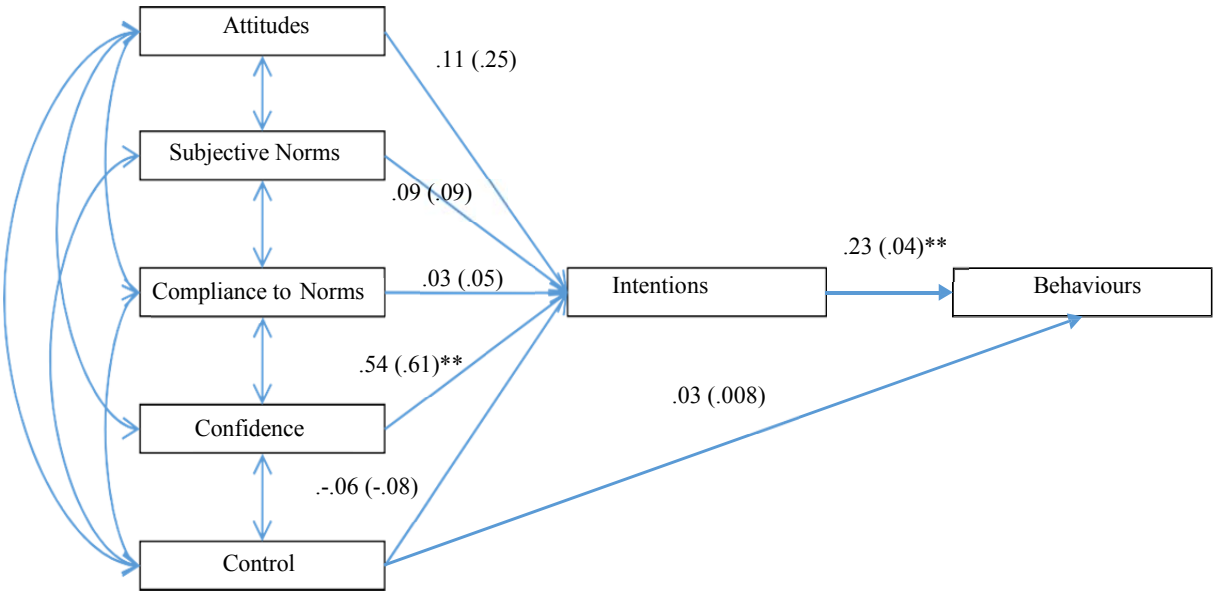

Figure 3. Ajzen's TPB model with standardized (and unstandardized) coefficients of help-seeking behaviour. Note: **p <.01. Fit indices: RMSEA = .054, Tucker Lewis Index = .945

Table 7 provides an overview of the direct and indirect effects on intentions and behaviours. An examination of the path coefficients from the predictor variables to intentions suggests that confidence (β = .54, t= 8.38, p< .001) was significant. Together, the predictor variables accounted for 36.6% of the variance in intentions (R^2 = .37, p<.000).

In the examination of help-seeking behaviours, intentions (β = .22, t=3.20, p< .001) was significant and perceived behavioural control (β = .03 , t=.45, p=.65) emerged as non-significant.

The significance of the indirect effects was estimated using the bootstrapping method available in the AMOS statistical analyses program to determine confidence intervals and p-values as recommended by Klein (2005). The indirect effects of attitudes (.023, CI -.001, .068), subjective norms (.017, CI -.011, .060), compliance (.009, CI -.017, .039), and control (-.018, CI -.058, .007) on help-seeking behaviours were non-significant. The indirect effect of confidence (.119, CI .036, .210) on help-seeking behaviours emerged as significant.

In sum, the results suggest that the overall model is a good fit for the data according to multiple fit indicators.

Table 7

Decomposition of Effects from Path Analysis Examining Help-Seeking

Effect	Unstandardized coefficient	*SE*	Standardized coefficient	*t*	R^2
Attitudes	.25	.14	.11	1.75	.366
Subjective Norms	.09	.06	.08	1.36	
Compliance	.05	.11	.03	.45	
Confidence	.61	.07	.54	8.38***	
Control	-.07	.08	-.06	-.92	
Intentions	.04	.01	.22	3.20**	.052
Control on Behaviour	.01	.02	.03	.45	

	Attitudes	Subj Norm	Comp	Conf	Cont	Intentions
Standardized direct effects						
Intentions	.11	.08	.04	.56***	-.08	.00
Behaviour	.00	.00	.00	.00	.07	.21**
Standardized indirect effects						
Behaviour	.02	.02	.01	.12**	-.02	.00

Note. ***p<.001, **p<.01, *p<.05

Objective #1 (b) Testing the Theory of Planned Behaviour Using IASMH

The Inventory of Attitudes toward Seeking Mental Health Services (IASMHS: Mackenzie, Knox, Gekoski, & Macaulay, 2004) was used as a measure of the TPB whereby the psychological openness factor reveals the individual's attitudes toward seeking professional help, indifference to stigma reveals the individual's concern of what others might think if they were to find out the person is seeking professional psychological help (subjective norms), and the final factor of help-seeking propensity factor reveals the individual's belief in their capability to seek professional help (perceived behavioural control). (Mackenzie, Knox, Gekoski, & Macaulay, 2004). An examination for the internal consistency of the measure was completed by examining the Pearson product-moment correlation coefficients among the indicators, the means and standard deviations (see Table 8).

Pearson's correlational analyses were conducted to explore the relationships between behaviours, intentions, and each of the three constructs from IAMSH and the results are summarized in Table 9. Upon inspection, the most significant correlations with behaviours were confidence and intentions. Furthermore, the most significant correlations with intentions were confidence, attitudes, subjective norms, and control. The correlations varied from moderate *rs* (212) =.15, $p<.001$ to strong *rs* (212) =.44, $p<.001$. All predictive constructs were significantly correlated with each other ($p<.05$).

Table 8

Mean, Standard Deviations, and Psychometric Properties of the Subscales of the IASMHS Measure Assessing Help-Seeking Intentions and Behaviours

Variable	N	M	SD	Potential Range	Actual Range
Attitudes (attpo)	212	2.1	.70	0-4	0-4
Subjective Norms (attits)	212	2.5	.67	0-4	0-4
Perceived Behavioural Control (attsp)	212	2.4	.59	0-4	0-4
Intentions	212	2.9	.96	1-6	1-6

Note. N = Number of participants, M = Mean, SD = Standard deviation
attpo = psychological openness, attis = indifference to stigma, attsp = help-seeking propensity

Table 9

Correlations for IAMSH's TPB Variables, Intentions, and Behaviours

Variable	1	2	3	4	5
1. Attitudes (attpo)		.30**	.44**	.26**	.15*
2. Subjective Norms (attits)			.24**	.16*	.01
3. Perceived Behavioural Control (attsp)				.41**	.33**
4. Intentions					.20**
5. Past Help-Seeking Behaviours					

Note. *$p < .05$, **$p < .01$.

Path Analysis

In order to examine the full model, a path analysis was conducted. In the analyses reported below, we chose several indices of fit, based on the recommendations of Kline (1998): χ^2/df, CFI, TLI, SRMR, and RMSEA. For χ^2/df, called the normed chi-squared, values below 5 are considered adequate/acceptable and values below 3 are considered good (Kline, 1998; Schumacker & Lomax, 2004). A non-significant χ^2 is desired because it suggests that the hypothesized model fits the data, on the other hand, a significant χ^2 indicates that the model does not fit the data (Byrne, 2010). The guidelines for interpretation and proposed cut-offs have varied considerably over time since the development of RMSEA. While some researchers suggests cut off scores of .05, others have posited .08 indicating an acceptable or mediocre fit (Hu & Bentler, 1999). Browne and Cudeck (1993) have noted that RMSEA greater than .10 to indicate a poor-fitting model. For the CFI and TLI (also called the NNFI), values above .90 are considered adequate/acceptable and values above .95 are considered good (Hu & Bentler, 1995). For SRMR, values below .10 are considered adequate/acceptable, and values below .05 are considered good (Hu & Bentler, 1995). In addition, the AIC was used when comparing the fit of two models; the model with the smaller AIC is considered to be the model with the better fit (Kline, 1998).

The input diagram of the model using IAMSH is located in Figure 4. Within this model, the measures of psychological openness (attitudes), indifference to stigma (subjective norms), and help-seeking propensity (perceived behavioural control) are hypothesized to predict intentions. Moreover, intentions and perceived behavioural control are hypothesized to predict the measure of behaviours.

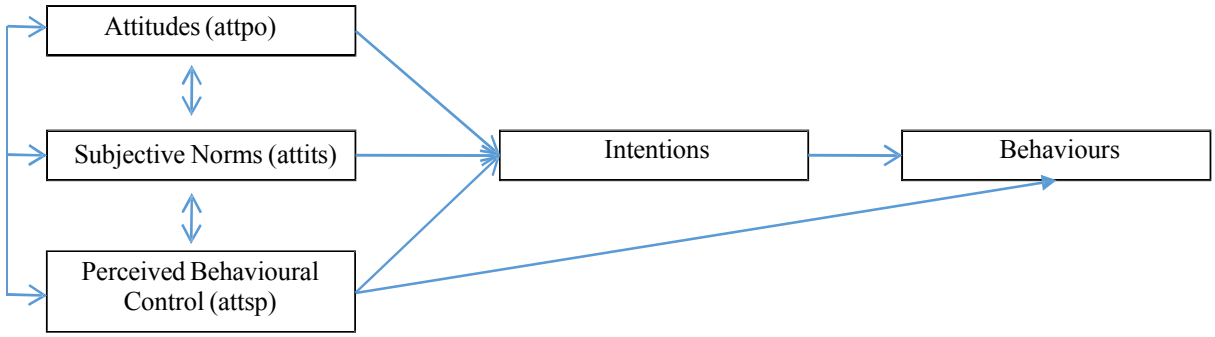

Figure 4. IAMSH input path model.

The χ^2 test generated a value of 2.66 which, evaluated with 2 degrees of freedom, had a corresponding p= .265. The non-significant result indicated that the model was a good fit for the data. Given that sample sizes above 200 generally yield significant results (Kenny & McCoach, 2003), the results were strong. An examination of additional indices suggested good fit (CMIN= 1.329; CFI= .995; TLI = .975). Lastly, a RMSEA value of .039, 90% confidence interval of RMSEA= 0.00 to 0.148, indicated a good fit according to MacCallum, Browne, and Sugawara (1996).

Direct and indirect effects. The path diagram, displayed in Figure 5, displays the standardized and unstandardized (in brackets) coefficients for the model examining help-seeking intentions and behaviours.

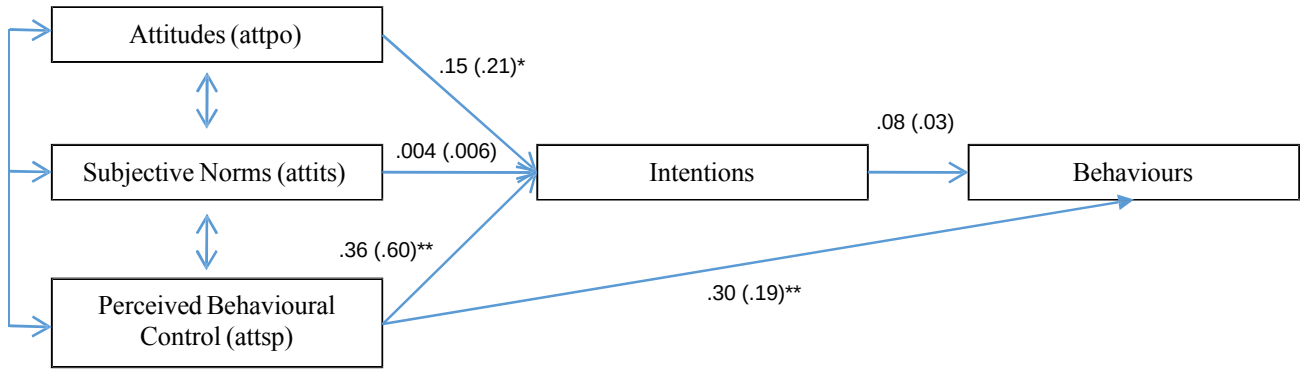

Figure 5. IAMSH Model with standardized (and unstandardized) coefficients of help-seeking.

Note: **p <.01. Fit indices: RMSEA = .039, Tucker Lewis Index = .975

Table 10 provides an overview of the direct and indirect effects on intentions and behaviours. An examination of the path coefficients from the predictor variables to intentions suggests that attitudes (attpo) ($\beta = .154$, $t = 2.167$, $p < .05$) and perceived behavioural control (attsp) ($\beta = .365$, $t = 5.551$, $p < .001$) were significant. Together, the predictor variables accounted for 19.2% of the variance in intentions ($R^2 = .192$, $p < .000$). In the examination of help-seeking behaviours, intentions ($\beta = .200$, $t = 2.955$, $p < .01$) and perceived behavioural control (attsp) ($\beta = .334$, $t = 5.135$, $p < .001$) emerged as significant.

The significance of the indirect effects was estimated using the bootstrapping method available in the AMOS statistical analyses program to determine confidence intervals and p-values as recommended by Klein (2005). The indirect effects of attitudes (.012, CI -.008, .051), subjective norms (.000, CI -.011, .019), and perceived behavioural control (.027, CI -.027, .086) on help-seeking behaviours were non-significant.

In sum, the results suggest that the overall model is a good fit for the data according to multiple fit indicators.

Table 10

Decomposition of Effects from Path Analysis Examining Help-Seeking

Effect	Unstandardized coefficient	*SE*	Standardized coefficient	*t*	R^2
Attitudes (attpo)	.21	.09	.15	2.17*	.192
Subjective Norms (attits)	.006	.10	.004	.06	
PBC (attsp)	.59	.10	.365	5.55***	
Intentions	.07	.02	.20	2.95**	.040
PBC (attsp) on Behaviours	.20	.04	.33	5.13***	.112

	Attitudes	Subj Norms	PBC	Intentions
Standardized direct effects				
Intentions	.15	.004	.36	.000
Behaviours	.00	.000	.30	.075
Standardized indirect effects				
Behaviours	.01	.000	.02	.000

*Note. ***p<.001, **p<.01, *p<.05*

Objective #1 (c) Testing the TPB Using Questionnaires from the Help-Seeking Literature

An examination for the internal consistency of the measure was completed by examining the Pearson product-moment correlation coefficients among the indicators, the means and standard deviations (see Table 11).

Pearson's correlational analyses were conducted to explore the relationships between behaviours, intentions, and each of the constructs from different measures and the results are summarized in Table 12. Upon inspection, the most significant correlations with behaviours were attitudes, subjective norms (Chinese stigma), confidence (self-efficacy), and intentions. Furthermore, the most significant correlation with intentions was attitudes. The correlations varied from moderate rs (212) =.15, p<.001 to strong rs (212) =.41, p<.001.

Table 11

Mean, Standard Deviations, and Psychometric Properties of the Subscales of the Help-Seeking Measures Assessing Help-Seeking Intentions and Behaviours

Variable	N	M	SD	Potential Range	Actual Range
Attitudes (attpo)	212	2.14	.70	0-4	0-4
Subjective Norms (Chinese Stigma)	212	3.21	.96	0-4	0-4
Subjective Norms (Canadian Stigma)	212	2.43	.83	0-4	0-4
PBC (Self-Efficacy)	212	4.34	.73	1-6	2-6
PBC (Locus of Control)	212	4.31	.73	0-4	0-4
Intentions	212	2.99	.96	1-6	1-6

Note: N=Number of participants, M=Mean, SD=Standard deviation

Table 12

Correlations for Attitudes, Chinese and Canadian Stigma, Self-Efficacy, Locus of Control, Intentions, and Behaviours

Variable	1	2	3	4	5	6	7
1. Attitudes (attpo)		-.09	-.18*	.11	-.35**	.26**	.15*
2. Subjective Norms (Chinese Stigma)			.41**	-.11	.00	.12	.20**
3. Subjective Norms (Canadian Stigma)				-.06	.10	-.06	-.04
4. Confidence (Self-Efficacy)					.32**	.13	.15*
5. Control (Locus of Control)						.10	.11
6. Intentions							.20**
7. Past Help-Seeking Behaviours							

Note. $*p < .05$, $**p < .01$.

Path Analysis

In order to examine the full model, a path analysis was conducted. In the analyses reported below, we chose several indices of fit, based Kline's (1998) recommendations: χ^2/df, CFI, TLI, SRMR, and RMSEA. The input diagram of the model is located in Figure 6. Within this model, the measures of attitudes, Chinese stigma, Canadian stigma, self-efficacy, and locus of control are hypothesized to predict intentions. Moreover, intentions and perceived behavioural control are hypothesized to predict the measure of behaviours.

An examination of the overall model fit provided some evidence that the model was an adequate fit for the data. The χ^2 test generated a value of 13.650 which, evaluated with 4 degrees of freedom, had a corresponding p= .009. While the significance level may have been seen as significant, given the large sample size generally results in a significant result, the results supported the examination of the additional fit indices. An examination of additional indices revealed mixed results. The incremental fit indices suggested adequate fit (CMIN= 3.412; CFI= .937; TLI = .667). However, the RMSEA value of .107, 90% confidence interval of RMSEA= 0.048 to 0.172 indicates a poor fit according to MacCallum, Browne, and Sugawara (1996).

Direct and indirect effects. The path diagram, in Figure 7, displays the standardized and unstandardized (in brackets) coefficients for the model examining help-seeking intentions and behaviours.

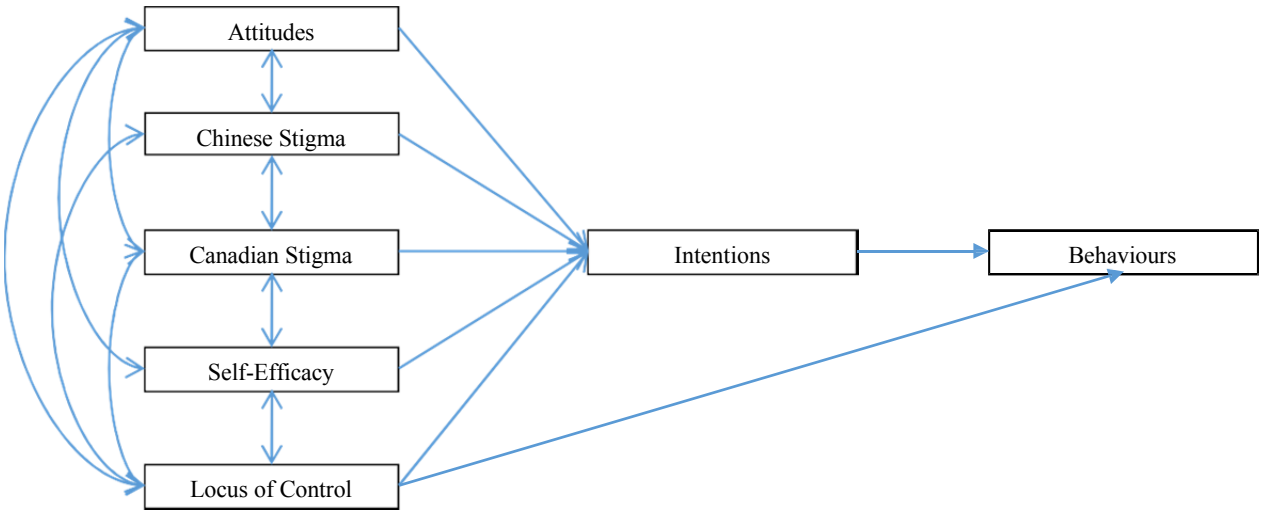

Figure 6. Input path model.

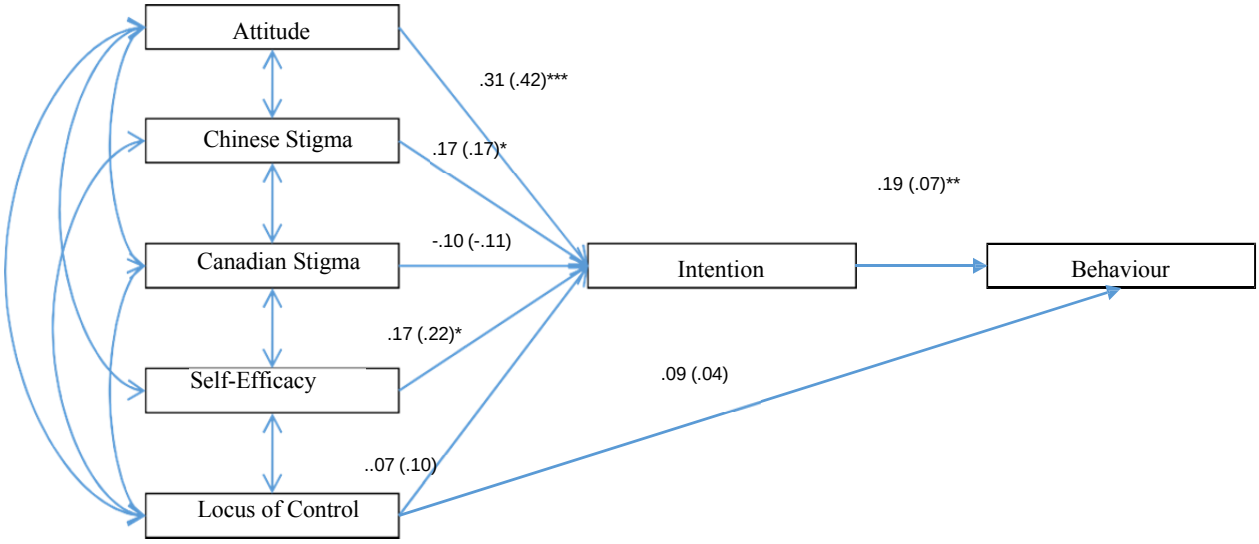

Figure 7. Model with standardized (and unstandardized) coefficients of help-seeking behaviours.

Note: **p <.01. Fit indices: RMSEA = .107, Tucker Lewis Index = .667

Table 13 provides an overview of the direct and indirect effects on intentions and behaviours. An examination of the path coefficients from the predictor variables to intentions suggests that attitudes (β = .307, t= 4.229, p< .001), Chinese stigma (β = .172, t= 2.392, p< .05), and self-efficacy (β = .170 , t= 2.382, p< .05) were significant. Together, the predictor variables accounted for 14% of the variance in intentions (R^2 = .14, p<.000).

When help-seeking behaviours were examined, intentions (β = .191, t=2.955, p< .001) were significant and perceived behavioural control (β = .09, t=-1.560, p=.655) emerged as non-significant.

The significance of the indirect effects was estimated using the bootstrapping method available in the AMOS statistical analyses program to determine confidence intervals and p-values as recommended by Klein (2005). The indirect effects of attitudes (.061, CI .016, .119), Chinese Stigma (.034, CI .004, .092), and Self-Efficacy (.044, CI -.105, -.007) on help-seeking behaviour were significant. The indirect effects of Canadian Stigma (-.017, CI -.060, .004) and Control (.030, CI .001, .082) were non-significant.

In sum, the results suggest that the overall model is an adequate fit for the data. Modification indices suggested a direct path be added between Chinese stigma and behaviours to better improve the fit of the overall model.

Table 13

Decomposition of Effects from Path Analysis Examining Help-Seeking

Effect	Unstandardized coefficient	*SE*	Standardized coefficient	*t*	R^2
Attitudes	.41	.09	.30	4.23***	.136
Chinese stigma	.17	.10	.17	2.39*	
Canadian stigma	-.11	.08	-.09	-1.36	
PBC Self-efficacy	.22	.09	.17	1.00	
PBC Locus of Control	.10	.10	.07	2.38*	
Intentions	.07	.02	.19	2.95**	.040
Control on Behaviour	.05	.03	.09	1.56	

	Attitudes	Ch Stigma	Can Stigma	Self-efficacy	Control
Standardized direct effects					
Intentions	.30	.16	-.08	.22	.15
Behaviour	.00	.00	.00	.00	.10
Standardized indirect effects					
Behaviour	.061**	.034*	-.017	.04*	.03

*Note. ***p<.001, **p<.01, *p<.05*

Path Analysis with modification indices. An examination of the overall model fit with the additional direct path from Chinese stigma to behaviours was added to the model as suggested by the modification indices (Figure 8).

The results provided some evidence that the model was a good fit for the data. The χ^2 test generated a value of 7.165 which, evaluated with 3 degrees of freedom, had a corresponding p= .067. The non-significant result indicated that the model was a good fit for the data. An examination of additional indices suggested good fit (CMIN= 2.388; CFI= .973; TLI = .808). Lastly, a RMSEA value of .081, 90% confidence interval of RMSEA= 0.00 to 0.160, indicated an adequate fit according to MacCallum, Browne, and Sugawara (1996).

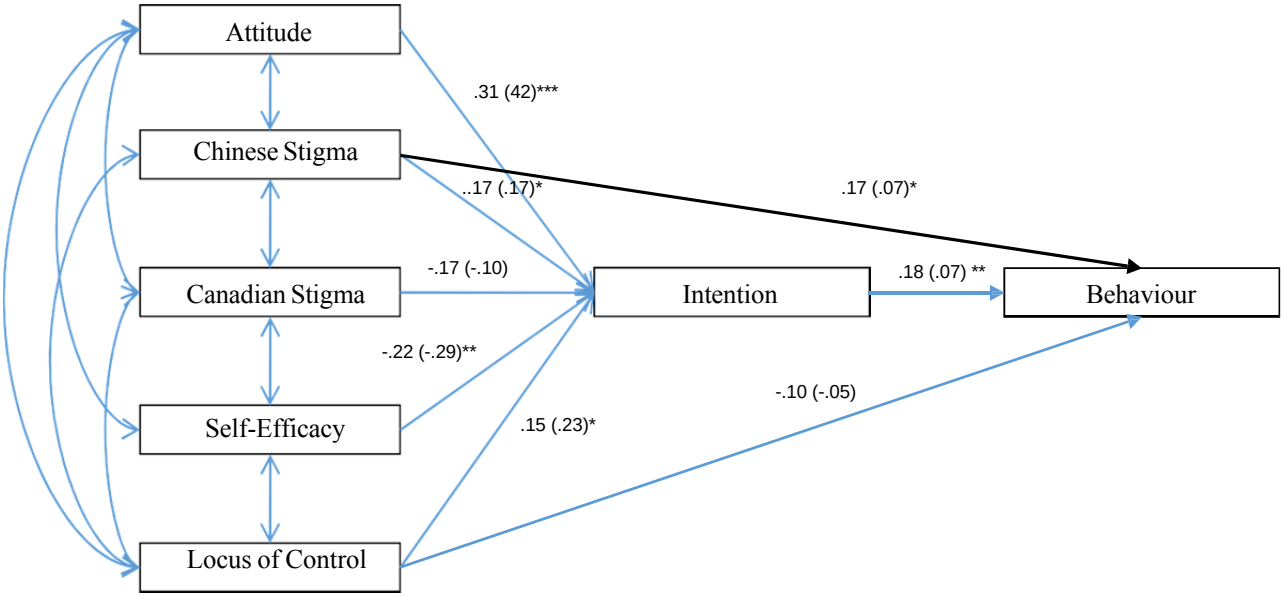

Figure 8. Overall model fit with additional path from Chinese Stigma to Behaviours.

Objective #2 – Cultural and Psychological Predictors of Attitudes, Subjective Norms, and PBC: Overview of the Analyses

In the following section, descriptive statistics of the variables used in the study as predictors of attitudes, subjective norms, and perceived behavioural control are presented. Statistically significant simple correlations are described and results from regression analyses are presented. In particular, results from simple regression analyses investigating significant predictors of attitudes, subjective norms, and perceived behavioural control are presented.

Descriptive Statistics

Table 14 presents the means, standard deviations, alphas, and ranges for predictor variables for to the total sample. On average, this sample of second generation Chinese Canadians identified both moderately with their Chinese and Canadian identity. They adhere moderately to Asian cultural values and just a slightly higher adherence to European values. They were moderately connected to their families. They anticipated some benefits to seeking help and slight risks. They moderately self-concealed and endorsed moderate levels of self-stigma.

Table 14

Mean, Standard Deviations, and Psychometric Properties of the Cultural and Psychological Predictors

Variable	N	M	SD	Potential Range	Actual Range
Ethnic Identity	212	2.68	.51	1-4	1-4
Canadian Identity	212	2.70	.78	1-4	1-4
Asian Values	212	3.99	.57	1-7	2-6
European Values	212	4.45	.50	1-7	3-6
Family Connectedness	212	3.26	.49	1-5	1-5
Anticipated Benefits	212	3.38	.84	1-5	1-5
Anticipated Risks	212	2.66	.96	1-5	1-5
Self-Concealment	212	2.69	.88	1-5	1-5
Self-Stigma	212	2.43	.66	1-5	1-5

Note. N=Number of participants, M=Mean, SD=Standard deviation

Correlations

Overall, ethnic identity and Canadian identity were positively correlated suggesting that the more they identified with being Chinese, the higher they also identified with being Canadian. Although Ethnic identity was positive correlated with Asian values, it was negatively correlated to European values. Ethnic identity was also found to positive correlate with family connectedness and self-stigma suggesting that the more they identified with being Chinese, the more connected they were to their families and the more they internalized stigmatizing feelings related to seeking mental health services.

Canadian identity was found to be positively correlated to Asian values suggesting that the more they identified with being Canadian, the higher they adhered to Asian cultural values. Moreover, Canadian identity was positively correlated to anticipated benefits, suggesting that the more they identified with being Canadian, the higher the expectations about the benefits associated with seeking mental health services. Canadian identity was also found to positively correlate with perceived behavioural control suggesting that the more they identified with being Canadian, the more they perceived having behavioural control over help-seeking.

Asian values was found to be negatively correlated to European values suggesting that the more they adhere to Asian cultural values, the less they adhere to European values. On the contrary, Asian values was positively correlated to family connectedness, anticipated risks and self-stigma suggesting that the more they adhere to Asian cultural values, the more they were connected to their families, the more they expected risks and internalized stigmatizing feelings related to seeking mental health services. Moreover, Asian values was found to be negatively correlated to attitudes and subjective norms suggesting that the more they adhere to Asian cultural values, the more negative their attitudes towards seeking help

and the less they are concerned with what others might think if they were seeking help.

European values was found to be positively correlated to anticipated benefits, suggesting that the more they adhere to European American values, the more they expected benefits associated with seeking mental health services. Conversely, European values was found to be negatively correlated to family connectedness, anticipated risks, self-concealment, and self-stigma. This suggests that the more they adhere to European American values, the less they are connected to their families, the less they expected risks, they are lower on self-concealment, and they have lower levels of self-stigma. Lastly, European values was found to be positively correlated to attitudes, subjective norms, and perceived behavioural control suggesting that the more they adhere to European American values, the more positive their attitudes, the more they are concerned with what others might think, and the more perceived behavioural control they have on help-seeking.

Family connectedness was found to be positively correlated to self-stigma, suggesting that the more they were connected to their families, the more internalized stigmatizing feelings they had related to seeking help. Conversely, family connectedness was found to be negatively correlated to attitudes suggesting that the more connected they were to their families, the more negative their attitudes towards help-seeking.

Anticipated benefits was found to be negatively correlated to self-stigma suggesting that the more expectations of benefits from seeking help, the less internalized stigma they held. On the contrary, anticipated benefits was found to be positively correlated to attitudes and perceived behavioural control suggesting that the more expectations of benefits from seeking help, the more positive the attitudes and the more perceived behavioural control they had to seeking help.

Anticipated risks was found to be positively correlated to self-concealment and self-stigma suggesting that the more expected risks associated with seeking help, the higher the predisposition to conceal personal information from others and the higher they internalize stigma related to seeking help. Conversely, anticipated risks was found to be negatively correlated to attitudes, subjective norms, and perceived behavioural control suggesting that the more expected risks related to help-seeking, the more positive their attitudes, the more they were concerned with what others think, and the more perceived control they had to seeking help.

Self-concealment was found to be positively correlated to self-stigma suggesting that the higher the predisposition to conceal personal information from others, the more internalize stigmatizing feelings related to seeking mental health services. Conversely, self-concealment was found to be negatively correlated with attitudes, subjective norms, and perceived behavioural control. This suggests that the higher the predisposition to conceal personal information from others, the more negative the attitudes, the less concern they have of what others think, and the less perceived behavioural control they have over seeking help.

Finally self-stigma was found to be negatively correlated to attitudes, subjective norms, and perceived behavioural control suggesting that the more individuals internalized stigmatizing feelings related to seeking help, the more negative their attitudes towards seeking help, the less they are concerned with what others think, and the less perceived behavioural control they have over seeking help. See Table 15 for correlations for all predictors.

Table 15

Correlations for All Predictor (Cultural & Psychological) Variables (Ethnic Identity, Canadian Identity, Asian Values, European Values, Anticipated Benefits, Anticipated Risks, Self-Concealment, and Self-Stigma

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Ethnic ID		.42**	.23**	-.18*	.28**	.03	-.001	.06	.19**	-.07	-.09	-.01
2. Canadian ID			.22**	-.10	.09	.14*	.02	.03	.03	.04	-.02	.19**
3. Asian Values				-.44**	.48**	-.08	.12	.15*	.33**	-.34**	-.32**	-.13
4. European Values					-.18**	.18**	-.17*	-.22**	-.35**	.33**	.29**	.20**
5. Family Connectedness						-.05	.11	-.02	.18**	-.20**	-.09	-.05
6. Anticipated Benefit							-.03	-.01	-.30**	.26**	.07	.33**
7. Anticipated Risks								.38**	.45**	-.31**	-.39**	-.29**
8. Self-Concealment									.30**	-.35**	-.30**	-.24**
9. Self-Stigma										-.50**	-.59**	-.42**
10. Attitudes (attpo)											.44**	.30**
11. Subjective Norms (attits)												.24**
12. Perceived Behavioural Control (attsp)												

Note. $*p < .05$, $**p < .01$.

Overview of the Regression Analyses

The main goal of the regression analyses was to investigate the impact of ethnic identity, Canadian identity, Asian values, European values, family connectedness, anticipated benefits, anticipated risks, self-concealment, and self-stigma on three outcome variables: attitudes, subjective norms, and perceived behavioural control from the TPB. Three regression analyses were performed for the total sample.

Predictors of Attitudes. Together, the cultural variables accounted for a significant proportion of variance in attitudes (36.2%). Asian values, anticipated benefits, self-concealment, and self-stigma were found to be significant predictors of attitudes. More specifically, it was found that the more adherence to Asian values, the higher self-concealment, and more self-stigma leads to more negative attitudes towards help-seeking. In contrast, a higher expectations of benefits to seeking mental health services leads to more positive attitudes toward help-seeking (see Table 16).

Table 16

Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Attitudes

Variables	B	SE	β	t
Ethnic Identity	.03	.09	.02	.34
Canadian Identity	.11	.09	.08	1.22
Asian Values	-.19	.09	-.16*	-2.13
European Values	.12	.09	.09	1.32
Family Connectedness	-.08	.09	-.06	-.87
Anticipated Benefits	.10	.05	.12*	2.01
Anticipated Risks	-.05	.05	-.07	-1.00
Self-Concealment	-.16	.05	-.20**	-3.24
Self-Stigma	-.31	.08	-.29***	-3.99

Note. *$p < 0.05$. ** $p < 0.01$. ***$p < 0.001$.; n = 212

Predictors of Subjective Norms. Together, the predictor variables accounted for a significant proportion of variance in subjective norms (41.4%). Asian values, anticipated risk, and self-stigma were found to be significant predictors of subjective norms. More specifically, it was found that the more adherence to Asian values, more anticipated risks, and more self-stigma leads to less concern of what others might think about seeking mental health services (See Table 17).

Table 17

Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Subjective Norms

Variables	B	SE	β	t
Ethnic Identity	.01	.08	.01	.17
Canadian Identity	.07	.09	.05	.77
Asian Values	-.22	.08	-.18**	-2.63
European Values	.05	.08	.04	.63
Family Connectedness	.13	.09	.09	1.44
Anticipated Benefits	-.09	.05	-.11	-1.84
Anticipated Risks	-.09	.05	-.12*	-1.94
Self-Concealment	-.06	.05	-.08	-1.24
Self-Stigma	-.50	.07	-.49***	-7.09

Note. *$p < 0.05$. ** $p < 0.01$. ***$p < 0.001$.; n = 212

Predictors of Perceived Behavioural Control. Together, the predictor variables accounted for a significant proportion of variance in perceived behavioural control (28.4%). Canadian identity, anticipated benefits, and self-stigma were found to be significant predictors of perceived behavioural control. More specifically, it was found that the more self-stigma one holds leads to less control towards help-seeking. In contrast, a higher Canadian identity and higher expectations of benefits to seeking mental health services leads to more control toward help-seeking (see Table 18).

Table 18

Regression Analysis for Predictor (Cultural & Psychological) Variables Predicting Perceived Behavioural Control

Variables	B	SE	β	t
Ethnic Identity	-.04	.08	-.04	-.55
Canadian Identity	.24	.08	.19**	2.88
Asian Values	-.03	.08	-.03	-.41
European Values	.04	.08	.04	.54
Family Connectedness	.04	.08	.03	.45
Anticipated Benefits	.15	.05	.21***	3.26
Anticipated Risks	-.08	.04	-.13	-1.79
Self-Concealment	-.07	.04	-.11	-1.58
Self-Stigma	-.23	.07	-.26***	-3.34

Note. *$p < 0.05$. ** $p < 0.01$. ***$p < 0.001$.; n = 212

Summary of Results

In sum, the results of the present study reveal that the TPB model was an adequate to good fit for the data depending on how the TPB constructs were measured. (1) Using Ajzen's guidelines, not only was confidence a strong predictor of intentions to seek help, but the only significant predictor in the TPB model. Also, the indirect effect of confidence on behaviours through intentions was also significant. (2) Using the Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) revealed attitudes and PBC as significant predictors of intentions to seek help. (3) Finally, using questionnaires in the help-seeking literature to test the TPB revealed that attitudes, Chinese stigma, and self-efficacy were significant predictors of intentions to seek help. Overall, the relationships between PBC and intentions to seek help were found to be significant consistent with the TPB model in all three path analyses. In addition, intentions to seek help significantly predicted behaviours.

When predictors of attitudes were examined, Asian values, anticipated benefits, self-concealment, and self-stigma were found be significant. As for subjective norms, Asian values, anticipated risks, and self-stigma were found to be significant predictors. Finally, Canadian identity, anticipated benefits, and self-stigma were significant predictors of PBC.

CHAPTER V: DISCUSSION

The primary purpose of this study was to examine the utility of the Theory of Planned Behaviour (TPB) in understanding help-seeking intentions and behaviours for emotional problems in a second generation Chinese Canadian population. While this empirically validated theory has been used extensively in the help-seeking literature, researchers have only begun to understand how this theory applies to different populations and behaviours. This objective was conducted using direct and indirect measures in three different ways: (a) Azjen's guidelines for the TPB (b) TPB measured by The Inventory of Attitudes toward Seeking Mental Health Services, and (c) TPB using questionnaires from the help-seeking literature.

The secondary purpose of this study was to examine the ways additional factors, including cultural factors, and how they may impact TPB constructs of the TPB. In particular, the current study extends the literature by examining values (Asian & European), ethnic identity (Chinese & Canadian), family connectedness, self-concealment, anticipated benefits and risks, and self-stigma as predictors of attitudes, subjective norms, and perceived behavioural control. I will discuss the results with respect to these objectives and how such findings fit within the extant literature. Moreover, specific attention is given to the theoretical and measurement implications of this research. Lastly, I will discuss limitations of the study as well as clinical implications of the findings.

Help-Seeking Behaviours in Second Generation Chinese Canadians

In the current study, among 212 participants, only 15.6% reported they had sought help from a mental health professional in the past for emotional problems, whereas only 2.8% reported currently seeing a mental health professional for emotional problems. In

Canada, Lesage and colleagues (2002) reported approximately 40% of Canadians sought some form of help from a mental health care professional in the previous year. Studies on help-seeking behaviours among Chinese in China reported 1% to 8.1% had sought professional help in the past (Hesketh, Ding, & Jenkinsh, 2002). In the United States, studies have reported 13.3% to 25% of Chinese Americans have sought help for emotional needs (Kung, 2003; Ying & Miller, 1992). Therefore, consistent with previous studies, we found that the rate of help-seeking behaviours of second generation Chinese Canadians was relatively low (Abe-Kim, Takeuchi, & Hwang, 2002; Sue, 1994; Yamashiro & Matsuoka, 1997).

Direct Measure of the TPB Model Using Ajzen's Guidelines

In line with previous research, the results support the overall utility of the TPB model for predicting intentions for help-seeking, whereby the model predictors accounted for 36.6% of the variance. The results also support the TPB model whereby intentions predicted help-seeking behaviours, accounting for 5.2% of the variance. However, despite the overall good fit of the model, it is important to note that only TPB confidence significantly predicted intentions. This is surprising because attitudes and subjective norms have been highlighted in previous studies as the strongest predictors of help-seeking intentions. This sheds light on the gap that exists in the help-seeking literature, which has primarily focused on attitudes and subjective norms, and points to the importance of including all TPB components as predictors of intentions. The finding that confidence is the strongest predictor is partially supported by the literature, but for different behaviours such as: using sunscreen (Pertl, Hevey, Thomas, Craig, Ni Chuinneagain, & Maher, 2010), mammography screening intention (Tolma, Reininger, Evans, & Ureda, 2006), eating fruit and vegetables (Emanuel, McCully, Gallagher, & Updegraff, 2012), alcohol

use (Armitage et al., 1999), and exercising (Terry & O'Leary, 1995).

This differential pattern of results as compared to other studies may be due to the way in which the TPB variables were measured. According to Ajzen (1991), he noted that the relative importance of the predictors (attitudes, subjective norms, and perceived behavioural control) in predicting intentions and behaviours has been hypothesized to vary according to the individual's factors, the nature of the situation, as well as the behaviour of interest. In addition, using Ajzen's guidelines to create a direct TPB questionnaire may lack in specificity and present with measurement problems (e.g., single item measures). For example, a single item measure for confidence was used to assess the construct within the TPB model. While single item measures are common in certain fields of research, they have typically been discouraged because they usually have unacceptable low reliability and may not adequately capture the construct fully. Therefore, while the content validity was supported by examining the relationship among confidence and other TPB variables, the measure may not provide a reliable measure of confidence. As such, future research on developing adequate multi-item measures of confidence or using validated measures of confidence towards help-seeking is warranted.

Indirect Measure of the TPB Model Using The Inventory of Attitudes Toward Seeking Mental Health Services (IASMH)

In line with previous research, the results support the overall utility of the TPB model using the IASMH for predicting intentions for help-seeking, whereby attitudes, subjective norms, and perceived behavioural control accounted for 19.2% of the variance. The results also support the TPB model whereby perceived behavioural control and intentions predicted help-seeking behaviours, accounting for 11.2% and 4% of the variance respectively. However,

despite the overall good fit of the model, only attitudes and perceived behavioural control significantly predicted help-seeking intentions. Subjective norms was not a significant predictor of intentions in this sample of Chinese Canadians as hypothesized and shown in past studies with Chinese populations.

Indirect Measure of the TPB Model Using Questionnaires from the Help-Seeking Literature

In line with previous research, the results support the overall utility of the TPB model for predicting intentions for help-seeking, whereby the model predictors accounted for 13.6% of the variance. The results also support that the TPB model intentions predicted help-seeking behaviours, accounting for 4% of the variance. Attitudes, Chinese stigma, and self-efficacy significantly predicted help-seeking intentions.

Subjective norms was measured by Chinese stigma and Canadian stigma. This allowed us to examine whether or not Chinese Canadians are more likely to seek help if they believe that people from their Chinese vs. Canadian community think they should carry out a behaviour. Interestingly, only Chinese stigma came out as a significant predictor of intentions. In the cross cultural literature, there has been extensive evidence on cross-national differences in individualism and collectivism with the Chinese being less individualistic and more collectivistic (Goh, Xie, Wahl, Zhong, Lian & Romano, 2007). Chinese culture values interpersonal relatedness and this would explain how significant others think of seeking help would play an important role in the Chinese culture. In this second generation Chinese Canadian sample, they were found to adhere moderately high to both Asian and European-American values, as well as identified with being both Chinese and Canadian. Even though values and identity were comparable, there is something about the Chinese subjective norms and what the Chinese community thinks about help-seeking that is important to pay attention

to.

Additionally, this result points to the importance of being specific in how the TPB questions are asked (e.g., Ajzen's guidelines: most people who are important to me vs. my Chinese or Canadian community). These findings demonstrate the importance of social influences, interpersonal relatedness and strong kinship bond which are particularly emphasized in this sample's cultural group. However, due to the exploratory nature of these findings, replication of these results is needed before firm conclusions can be drawn.

Overall Use of the Theory of Planned Behaviour for Help-Seeking

The present study served as an important step in utilizing the TPB in three ways to understand help-seeking intentions and behaviours for second generation Chinese Canadians. Overall, the results of the study provide support for the application of TPB in help-seeking among Chinese Canadians. Moreover, the study highlighted the factors that were important for help-seeking in this group. First, holding a positive attitude towards seeking mental health treatment was mostly a strong and significant predictor of help-seeking intentions. These results are in line with previous research showing that individuals with more positive attitudes towards seeking help are more likely to seek help (Bayer & Peay, 1997; Vogel & Wester, 2003; Vogel et al., 2005). What's interesting in the results is the differential contribution attitudes, subjective norms, and PBC has on intentions depending on how it was measured (direct vs. indirect measure).

As predicted in our hypothesis, subjective norms was expected to have a direct relationship with intentions; however, no such relationship was found using Ajzen's TPB and the IASMH. Only in the TPB model using questionnaires from the help-seeking literature found a direct relationship between Chinese Stigma and intentions. Previous studies have

provided mixed results, similarly to the current study. For example, some studies have found no direct relationship between subjective norms and intentions (Vogel et al., 2005) whereas other studies have found a direct relationship between subjective norms and intentions (Rickwood & Braithwaite, 1994; Mo & Mak, 2009). Whereas subjective norms is generally considered as a weaker predictor of intention, some studies have highlighted the importance of subjective norms, especially among Asians (Bagozzi, Lee, & Loo, 2001; Kim & Park, 2009; Mo & Mak, 2009). It has been suggested that in collectivistic cultures, interpersonal relatedness and strong kinship bond are important, significant others may play a crucial role in the development of a person's decision to seek help. Studies that found this strong relationship between subjective norms and intentions were conducted in Hong Kong and China, where arguably, Asian values of collectivism may be stronger than those of Canadian-born Chinese. In Kim and Park's (2009) study, although they used Asian American students in their sample, they mixed together different Asians (e.g., Korea, Chinese, Vietnamese, Filipino, Indian, Japanese, Pacific Islanders, and more) along with different generations (e,g., 1st, 1.5, 2nd, and other). By grouping all Asians and generations into one category not only weakens and confounds research findings, but also likely obscures important variability within the group.

In this study, Chinese stigma was found to be predictive of intentions. Some researchers posit that the influence of social norms is situationally dependent and thus be expected to have less of a direct influence in situations where the behavioural outcomes are more private. Equally, social norms would be expected to have a greater direct influence when individuals are motivated by external pressures. In this study, participants seemed to be concerned about what their Chinese group would think as compared to others (e.g., "Most people who are important to me …" vs. "People in my Chinese community…"). However,

within this framework, even the absence of a direct relationship between subjective norms and intentions may not reflect a lack of influence by social pressures. Social influences may play a greater role in shaping attitudes as suggested by Vogel and colleagues (2005), where they found subjective norms indirectly influenced intentions through its effect on attitudes. In light of these inconsistent results, the importance of subjective norms warrants further investigations, especially among Asian populations. This study also highlights the importance of specificity in how questions and items are asked on surveys, suggesting the use of indirect measures.

When Ajzen (1985) added PBC to the Theory of Reasoned Action to form the TPB, PBC was perceived as a unidimensional construct. However, the items that fell under this global label included perceived difficulty, confidence, perceived controllability, and perceived locus of control (Kraft, Rise, & Sutton, 2005). This mix of items led researchers to examine the dimensionality of the construct. Several studies have since emerged to support two underlying distinct clusters, leading to Ajzen (2002) to re-conceptualize PBC as an overarching construct with two separate but interrelated constructs; self-efficacy (e.g., ease/difficulty, confidence) and controllability (e.g., personal control over behaviour). Even though this revision was made over a decade ago, rarely do studies use both measures of self-efficacy and locus of control in understanding the process of different behaviours, especially in help-seeking. Studies that have examined both the role of self-efficacy and control have typically focused on behaviours such as: sunscreen and sunbed use (Pertl, Hevey, Thomas, Craig, Ni Chuinneagain, & Maher, 2010), condom use (Munoz-Silva, Sanchez-Garcia, Nunes, & Martins, 2007), mammography screening (Tolma, Reininger, Evans, & Ureda, 2006), and exercise (Rhodes, Blanchard, & Matheson, 2006).

The results of this study support the idea that PBC consists of two distinct but interrelated components: self-efficacy and controllability. Moreover, the results highlight the importance of self-efficacy/confidence in help-seeking as a predictor of help-seeking intentions as it came out as a significant predictor in all three measures of TPB. This is in line with several studies that have presented evidence supporting a distinction between self-efficacy (e.g., ease/difficulty, confidence) and perceived behavioural control (e.g., locus of control over behaviour) (Ajzen, 2002; Giles, Liddell, & Bydawell, 2005; Povey, Conner, Sparks, James, & Sheperd, 2000). Upon reviewing multiple empirical studies, not only is there a distinction between self-efficacy and control across a broad range of behaviours, but there is also evidence that self-efficacy may be superior to controllability in predicting intentions and behaviours (Munoz-Silva, Sanchez-Garcia, Nunes, & Martins, 2007; Tolma, Reninger, Evans, & Ureda, 2006). This study suggests that different control beliefs play different roles where self-efficacy may play a greater role in help-seeking intentions. Further research is necessary to understand more fully how self-efficacy and control relate to actual help-seeking behaviours.

Overall, the findings of this study provide empirical support of the TPB for help-seeking intentions and behaviours among second generation Chinese Canadians. The proportion of variance accounted for in intentions measured in three ways were 36.6%, 19.2% and 13.6% respectively. We can see that the use of direct measures yielded the most variance, however, as specificity of the questionnaires and items increased (use of indirect measures), the picture became more complex and interesting. Moreover, the results show how help-seeking is a complex behaviour entailing personal, cultural, social, and environmental factors in its explanation.

The Effect of the Study Covariates on Help-Seeking Intentions. The effect of

covariates, psychological distress and perceived social support, on help-seeking intentions was assessed in the current study. Research on the role of psychological distress and help-seeking has been inconclusive (Deane & Chamberlain, 1994; Kung, 2003; Solberg, Ritsma, Davis, Tata, & Jolly, 1994). Even though some studies have found a positive relationship between levels of psychological distress and intentions to seek help, other studies have found the opposite. In the present study, greater psychological distress was associated with less intentions to seek help. This finding is in accordance with previous research in this area (Rickwood, Deane, Wilson & Ciarrochi, 2005, Messidor & Sly, 2014). In addition, greater psychological distress was also associated with less positive attitudes, less confidence, and less control to seek help. In contrast to previous research, perceived social support was not associated with either attitudes or intentions to seek help. It is important to point out that not all social supports such as family, friends, or a special person, are in fact equally supportive and may be supportive in different ways. Research has shown that having more meaningful supports and connections is a protective factor (Barker, 2007). It may be important to distinguish which kind of social support (e.g., instrumental, informational, affiliative, and emotional) as well as the sources (e.g., family, friends, community and social institutions, etc…). For example, among Chinese Canadians, the question of whether family, friends or another source of social support be more important in the help-seeking process should be further investigated.

The Impact of Cultural Variables on Help-Seeking

The Effects of Asian Values and European Values on Help-Seeking. The current study examined the effects of Asian and European values on attitudes, subjective norms, and PBC. Consistent with the study's hypothesis, Asian values was a significant predictor of

attitudes. These findings support past studies (Kim & Omizo, 2003; Miville & Constantine, 2007), that found that strong adherence to Asian values was predictive of less positive attitudes toward seeking help. This supported our hypothesis in that Asian cultural values are important factors in shaping attitudes. In line with previous studies, not only are conceptions, beliefs, and values about mental health ingrained in first generation Chinese immigrants, but the cultural orientation and values may be passed on to the second generation (Chen, Kazanjian, & Wong, 2009; Abe-Kim, et al., 2007). While second generation Chinese Canadians may, in many aspects, be integrated into Canadian life, it appears that their Chinese cultural heritage still exerts influence on their experience with mental health and their beliefs about appropriate ways to resolve mental health difficulties.

Although the study hypothesis was supported, Asian values was predictive of subjective norms, the direction of the relationship was not supported and counter-intuitive. There was a negative relationship found between Asian values and subjective norms suggesting that the more adherence to Asian values leads to less concerns of what significant others might think about seeking mental health services. Immigrant parents of second generation Chinese Canadians tend to retain their ethnic cultural values, whereas second generation Chinese Canadians tend to acquire Western norms and values and advocate independence and autonomy (Song & Glick, 2004; Leong & Tata, 1990; Ma & Yeh, 2005). There is usually a substantial gap between Canadian-born Chinese and their parents in terms of their endorsement of traditional culture and values (Chao & Tseng, 2002; Tsai-Chae & Nagata, 2008; Uba, 1994). This value discrepancy may explain why higher adherence to Asian values lead to less subjective norms. Although Chinese Canadians seem to maintain their cultural values, their preference of values is developed through their experiences and contact with the dominant culture (e.g., school,

peers, and media) that influence their perception and interpretation of their family's culture. Those who prefer the norms in the mainstream culture tend to endorse values that lead to self-actualization, which may explain the results in this study. As a result, even though conformity with significant others and respect for authority figures are a part of the concept of Asian values, this study shows that adhering to Asian values may not affect one's view of how significant others think of seeking help for mental health issues.

Another explanation for the inconsistent finding that the more adherence to Asian values leads to less concern of what others might think about seeking mental health services, may be the way in which subjective norms was measured. The subscale of Indifference to Stigma from the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS) was used as the measure of subjective norms. Even though the authors claimed to have used Ajzen's definition of subjective norms in their development of the construct, a closer examination of the six items used to measure this construct suggests the subscale may be measuring something different (e.g., "Having been mentally ill carries with it a burden of shame", "I would feel uneasy going to a professional because of what some people might think of me", "Having been diagnosed with a mental disorder is a blot on a person's life"). Even though the IASMHS is theoretically based and has been shown to be internally consistent, further research is needed to replicate the factor structure of the inventory, especially subjective norms (indifference to stigma) and perceived behavioural control (help-seeking propensity). Most studies using the IASMHS have used an overall score of the inventory as a measure of attitudes, however, the three internally consistent factors within the scale were designed to measure the key concepts of Ajzen's TPB, namely attitudes, subjective norms and perceived behaviour control.

Lastly, European values was found to be significantly positively related to help-seeking attitudes, subjective norms, PBC and intentions. However, European values was not found to be a significant predictor of attitudes, subjective norms, or perceived behavioural control. Data indicated a relation between higher levels of adherence to European values and decreased levels of self-stigma to seeking help. Participants who reported higher adherence to European values might have lower self-stigma because they might not want to burden their family members by being self-reliant, independent from their family reflection of success and failure, which in turn decreased their self-stigma against seeking help. Evans-Lacko, Brohan, Mojtabai, and Thornicroft (2011) found that individuals living in countries with less stigmatizing attitudes, higher rates of help-seeking and treatment utilization and better perceived access to information had lower rates of self-stigma and perceived discrimination.

The Effects of Ethnic Identity and Canadian Identity on Help-Seeking. Overall, ethnic identity and Canadian identity were positively correlated suggesting that the more they identified with being Chinese, the higher they also identified with being Canadian. This is consistent with past studies that second generation Chinese Canadians often identity with both cultures and identities (Lalonde & Giguere, 2008). Canadian identity was positively correlated to anticipated benefits, suggesting that the more they identified with being Canadian, the higher the expectations about the benefits associated with seeking mental health services. Furthermore, Canadian identity was found to be a significant predictor of PBC, whereby a higher Canadian identity leads to more perceived control toward help-seeking.

Past studies have shown that Asian Americans who identified themselves as bicultural reported more positive outcomes (e.g., higher levels of life satisfaction) (Atkinson & Gim, 1989; Ying, 1999). Being bicultural for the most part does not constantly result in cultural

conflict, given that there are more similarities between norms of Chinese and Canadian culture than there are differences (Schwartz & Bardi, 2001). There are certain situations when conflict arises, usually when the two identities evoke two sets of norms that are not compatible and when one feels commitment to both. Help-seeking may be one of those situations that create conflict that requires the individual to follow only one set of norms. In this current study, although the sample identified strongly with both their Chinese and Canadian identities, only Canadian identity was significantly predictive of perceived behavioural control. These results further lend support to the importance of exploring the help-seeking process from a bidimensional perspective and how being affiliated to both cultures impacts the decision-making process. Identifying with being Chinese and Canadian may influence the process of the help-seeking decision differently. This warrants further research in teasing apart how these different identities are negotiated and how they affect the individual.

The Effects of Family Connectedness on Help-Seeking. In this study, family connectedness was related to self-stigma, suggesting that the more they were connected to their families, the more internalized stigmatizing feelings they had related to seeking help. Conversely, family connectedness was found to be negatively correlated to attitudes suggesting that the more connected they were to their families, the more negative their attitudes towards help-seeking. In our study, family connectedness was not significant in predicting attitudes, subjective norms, and PBC.

There are a few studies focusing on the relationship between family factors (e.g., family support, conflict, atmosphere, living area, etc…) and how they influence help-seeking. For example, Abe-Kim, Takeuchi, and Hwang (2002) found that family conflict predicted an

individual's mental problems and use of mental health service, but family support did not. Moreover, it has been found that Chinese adolescents who live in the United States and Canada often reported feelings of frustration and alienation from their parents due to the lack of communication and emotional expression (Qin et al., 2008; Wu & Chao, 2005). They tend to prefer the Western values of emotional and physical expressiveness and open communication (Hyman, Vu & Beiser, 2001). Second generation Chinese Americans have often described their parents as emotionally distant, strict, and expect one-way obedience, whereas American parents are often more flexible, relaxed, warm, and open in relationships (Pyke, 2000; Wu & Chao, 2005). This often leads to dissatisfaction and conflict with the relationship with the parents.

Another source of conflict is the lack of open communication. Chinese parents use family rules to reason with their children and expect them to listen without talking back. Many Chinese children often choose not to disclose their personal lives and emotions to avoid getting lectures or reprimanded when they fail to meet their parents' expectations (Qin et al, 2008). Generational and cultural differences between Chinese parents and their children pose a negative effect on parent-child relationship. Second-generation Chinese Americans reported experiencing the highest level of intergenerational conflicts, when compared to first-generation Chinese American and European American counterparts (Ma & Yeh, 2005). Intergeneration conflict is an important topic of study because family relationship is one of the most significant predictors of adolescents' mental health wellbeing (Cook, 2001). In future studies, it would be important to explore the effects of both family connectedness and conflict and their roles in the help-seeking process.

The Effects of Self-Concealment on Help-Seeking. Consistent with the study's

hypothesis, self-concealment significantly predicted attitudes toward help-seeking, which is consistent with past studies (Kelly & Achter, 1995; Cepeda-Benito & Short, 1998; Cramer, 1999, Gong, Gage, & Tacata, 2003; Ho, 1991; Liao, Rounds, & Klein, 2005). This indicates that the higher level of self-concealment individuals had, the more negative their attitudes toward help-seeking. This finding suggests that Chinese Canadians who have a tendency towards self-concealment are likely to have difficulty revealing and sharing their problems. The concept of self-concealment seems to be central to understanding Chinese Canadians' attitudes and may involve the issue of shame and loss of face. Those who actively conceal one's personal, distressing, or negative information from others could be viewed as avoiding shame and maintain face within one's cultural context. Not sharing distressing personal information can lead to increased distress and impedes help-seeking behaviours. Research on the link between self-concealment and psychological adjustment has shown that high levels of self-concealment leads to negative psychological outcomes including: depression (Masuda, Wendell, Chou, & Feinstein, 2010), anxiety (Kahn & Hessling, 2001), and psychological distress (Cepeda-Benito & Short, 1998). Liao and colleagues (2005) found that among Asian Americans, higher self-concealment was associated with increased perceived severity of personal and interpersonal problems. Consistent with prior research, self-concealment seems to be a unique predictor of attitudes of help-seeking (Masuda& Boone, 2011; Vogel, Wester, & Larson, 2007).

The Impact of Additional Psychological Variables on Help-Seeking

The Effects of Anticipated Benefits and Anticipated Risks on Help-Seeking.

Anticipated benefits was found to be a significant predictor of attitudes and PBC. In addition, anticipated benefits was negatively correlated to self-stigma suggesting that the more expectations of benefits from seeking help, the less internalized stigma one holds. It seems as if being aware of

the potential benefits of seeking help may lead to more positive attitudes and increased PBC over help-seeking, and may be protective against developing self-stigma. This finding is consistent with those found in past research that anticipated benefits positively predicted help-seeking and a unique predictor of attitudes toward seeking help (Vogel & Wester, 2003; Vogel et al., 2005; Hackler, Vogel, & Wade. 2010). Anticipated benefits of seeking counseling have been defined as the perceived utility of discussing personal issues with a counselor (Vogel & Wester, 2003). However, this is the first study to show that anticipated benefits may also be a unique predictor of PBC and plays an important role in forming help-seeking decisions.

A different pattern of findings was found with regards to anticipated risks being a significant predictor of subjective norms. Their negative relationship suggests that the more anticipated risks one associates with seeking help leads to less concerns of what significant others might think about seeking mental health services. Consistent with the more extensive body of help-seeking research, it has been found that people's anticipated risks of seeking help may be a potential barrier (Vogel & Wester, 2003). Researchers have defined anticipated risks as the perception of the potential threats associated with opening up to a counselor (Vogel & Wester, 2003). Consistent with this definition, Vogel and colleagues (2005) have shown anticipated risks as being one of the unique predictors of attitudes toward seeking help. Although we did not find this result, it may warrant further examination of both anticipated benefits and risks in their roles in forming people's help-seeking attitudes, subjective norms, PBC, and subsequent decision to seek help.

The Effects of Self-Stigma on Help-seeking. In this study, self-stigma was hypothesized to have a negative relationship with attitudes, subjective norms, and PBC. The results supported this hypothesis. The significant negative relationship between self-stigma and

attitudes, subjective norms, and PBC also supports previous findings (Vogel et al., 2006, Vogel et al., 2007), although this is the first study to directly examine the link between self-stigma and subjective norms and PBC, in addition to attitudes. Self-stigma was found to be the strongest predictor of help-seeking attitudes, subjective norms, and PBC, such that participants who perceived a great self-stigma associated with less positive attitudes, less concern with what others think of help-seeking, and less PBC. This study supports the growing body of research noting the importance of self-stigma in the decision to seek help extending it to understand how it plays a role in the TPB among second generation Chinese Canadians.

Another thing to consider is how self-stigma may have both cultural and personal components for Chinese Canadians. Just as Iwasaki (2005) distinguished between self-stigma and social stigma, and reported that self-stigma rather than social stigma was predictive of depressed Asian clients' decision to discontinue psychological treatment, self-stigma seem to personally affect individuals and may reflect how it affects self-esteem issues as well as help-seeking intentions and behaviours.

Corrigan and Wassel (2008) described mental health stigma as a cognitive-behavioural process that can be manifested: public stigma, and personal or self-stigma. Public stigma is defined as negative stereotypes about people with mental illness (e.g., dangerous, crazy, weak, blame them for their problems). Self-stigma is defined as the internalization of public stigma and can have an effect on self-esteem, self-efficacy, and in avoiding growth and independence (Corrigan & Wassel, 2008).

Results from this study suggest that Chinese Canadians are faced with dual stigma – already being concerned with public stigma as being perceived as "crazy" as many Canadians and Americans are faces with (Vogel, Wade, & Haake, 2006), in addition, adhering to Asian

values and being concerned with what their Chinese family/community might think, further prevents Chinese Canadians from getting the help they might need. One can understand how values in Chinese Canadians can be viewed as a double-edged sword. On one hand, there may be fear in shaming the family, losing face, and maintaining emotional control in those who adhere to Asian values, however, on the other hand, adhering to these values and relying on family and the community can serve as a huge source of support. Whether the feelings, beliefs, or values toward seeking mental health services are traditional Asian values or societal, feelings are real until societal values can changes, those suffering from mental illness will continue to delay seeking help until their problems get intolerably worse or will not get any help at all (Herrick & Brown, 1998).

We incorporated both Asian and European-American cultural values as well as both Chinese and Canadian identities into this study because as bicultural beings, many Chinese Canadians are influenced by both cultures differently. Relatively little research examine both cultural values and identities in relation to their unique effect on the help-seeking process. Therefore, these findings can contribute to existing research on Chinese Canadians' help-seeking process. Asian values might influence an individual to avoid bringing shame to the family by keeping problems within the family, which in turn, might increase stigma regarding seeking help for mental health and emotional problems. However, European-American values might work to decrease that stigma by encouraging individuals to solve their problems independently of their families.

Corrigan (2004) suggests that endorsing higher levels of self-stigma of seeking mental health services also affects one's sense of self, suffering diminished self-esteem and self-efficacy. Self-esteem is usually affected as diminished views about one's personal worth and is

often associated with feelings of shame (Corrigan, Faber, Rashid, & Leary, 1999). Research has shown a significant relationship between shame and avoiding treatment. In addition, family shame has also been shown to be a significant predictor of treatment avoidance, consistent with this study's results. It is therefore crucial not to only focus on individuals, but also to look at their families, and cultural groups. Investigating both public stigma and self-stigma in interaction in future studies will provide a better picture of the help-seeking process.

Implications for Research and Theory

Overall, the results from the current study support the theory and applicability of TPB in predicting intentions to seek help for mental health services especially in second generation Chinese Canadians. In addition, the findings also support the case for the introduction of additional culture-specific, as well as additional psychological variables to TPB, suggesting that the TPB can be modified to be culturally appropriate for Chinese Canadian samples. A number of significant research and theoretical implications that stem from the results will be presented.

One implication of these results suggests that measurement factors may influence the robustness and utility of the TPB when examining intentions. Specifically, direct and indirect measures generate different outcomes. As seen in this study, the TPB model was measured in three different ways and although the direct measure of the TPB seemed more predictive of intentions (yielding a higher R^2), indirect measures yielded a more complete and complex picture of the help-seeking process, giving us more information. Although Ajzen's guidelines are helpful in creating questionnaires, it may be too general and may miss important information unique to the behaviour in question and for different cultural populations. These results indicate the importance of social influences related to help-seeking and how they are an

integral component in explaining second generation Chinese Canadians' intentions in seeking help. Previous research has examined attitudes toward seeking help extensively, but has paid relatively little attention to perceptions of others' opinions about mental health use. The present study indicates the importance of considering social influences on help-seeking. Future research should include the perception of others' opinions about seeking help for mental health services, and even more specifically which "others" are related to help-seeking intentions (e.g., Chinese vs. Canadian community). Researchers could further examine the influence of others including family, peers, and exploring more specifically how significant others might be defined.

Overall, the results of this study support the use of behavioural models, such as the TPB model when examining the internal and external factors that influence an individual's process of help-seeking intentions and behaviours. It is important to note that the TPB is only one theoretical model to help understand the help-seeking process, there are also alternative theoretical models that could be applied. Indeed, the question as to what psychological mechanisms affects the decision-making process of help-seeking remains unclear in the literature. More research to test other theoretical models is needed to help shed light on what psychological variables affect the help-seeking process. However, for now, the TPB model has emerged as one possible behavioural model through which the influences on both intentions and behaviours may be examined (Bagozzi, Dholakia, & Basuroy, 2003). In addition, understanding the process through social influences and how they may affect these processes, can help provide valuable information for prevention and intervention.

Implications for Clinical Outreach and Practice

Addressing stigma among Chinese Canadians is important because seeking help for

mental health problems can help individuals seek relief, rather than suffer and not seek help. Chinese stigma may be a barrier for seeking help and it may be helpful to provide mental health information and handouts to Chinese communities. Mental health professionals may also need to broaden outreach services and may include working in collaboration with Chinese communities (e.g., Chinese churches, organizations, and primary health care services, where these sites can act as referral sources for mental health care). Workshops and psycho-educational groups at schools may be avenues to open the dialogue and conversation about mental health.

Moreover, attitudes should be targeted with outreach services and public campaigns and focusing on positive beliefs and positive outcomes associated with seeking help. People need to be better informed about both the nature of seeking help (e.g., safe place to talk about personal and emotional issues), as well as about what happens and why it is potentially effective and helpful. This information may help people to feel more comfortable with self-disclosure and increase their positive attitude toward seeking help.

In addition, integration of mental health services with primary care may be one of the possible ways to reduce stigma. Individuals who can access mental health services as part of their overall health concerns would break the resistance of seeking out mental health services. Yeung and colleagues (2004) have noted effectiveness of such integrated services in Chinese Americans in Boston and New York. In Alberta, patients can see behavioural health consultants as part of the primary care multidisciplinary team in clinics regarding their mental health concerns. Normalizing stigma-related concerns, opening dialogue, and viewing mental health as part of overall health would help minimize stigma. Help-seeking is increased when people see the problem they are dealing with as more common (Snyder & Ingram, 1983), therefore

normalizing issues may help overcome certain barriers (i.e., social stigma). Moreover, integrating mental health services into academic advising may be helpful as it is more common and acceptable to seek help for academic and career advising among Asian Americans (Chu & Sue, 2011).

The TPB construct of PBC (e.g., self-efficacy/confidence and control) is a useful framework that can be used to guide tailored interventions and attention can be placed on the enhancement of self-efficacy. According to Bandura (2001), there are four ways to increase self-efficacy including: mastery of the behaviour through successful performance of successive steps, vicarious observation, verbal persuasion, and reinforcement, and management of emotional arousal. For example, when applied to seeking help from professionals, videos and psychoeducational workshops could be provided in terms of the steps involved in seeking help, what to expect at their first session, the differences between different professionals (e.g., psychiatrists, psychologists, mental health therapist, and more), and the benefits of seeking help.

In terms of implications for clinical practice, clinicians should be aware and sensitive to how the stigma that Chinese Canadians' experiences regarding seeking help, can shape their attitudes, subjective norms, perceived behavioural control, and intentions to seek help when experiencing an emotional problem. Therefore, addressing the issue of stigma early on in the therapeutic relationship and therapy, and even during the intake process, may increase Chinese Canadians' positive attitudes and willingness to see a therapist, which in turn will impact their use of mental health services. In addition, being cognizant of cultural influences such as self-concealment and Asian values and their effects on attitudes is crucial. Services need to be more culturally sensitive, especially for those who have difficulties disclosing personal and

sensitive issues. Taking the needed time to understand why there is reluctance to seek help is important.

Rather than categorizing Chinese Canadians by their racial status and automatically developing assumptions that they will have higher levels of stigma due to their cultural values, it will be important for clinicians to consider the meaning of stigma to each individual Chinese Canadian client. This theoretical model will provide the guidance necessary to think about variability among Chinese Canadians.

Limitations and Future Directions for Research

Although the results of the current study provide new and important implications for those trying to understand the help-seeking process, some limitations need to be noted in the interpretation of results and conclusions. One limitation is that these findings were derived from a convenience sample in Montreal. We need to be cautious when applying these results until further research demonstrates the generalizability of our findings. In particular, researchers and clinicians should be careful when applying these findings to diverse populations. Our sample of Canadian-born Chinese may differ in important ways from other cultural groups, even so from other Chinese immigrant groups. Different cultural backgrounds may furnish different predictors and relationships between cultural variables and help-seeking constructs. Replication with other groups is recommended.

Moreover, the present results are based on cross-sectional sample and correlational data, and therefore, causal relationships cannot be established. Future studies should examine these models with other methodologies, such as experimental and longitudinal studies, which may clarify the direction of effects, as well as examine the temporal and causal relationships between variables. Researchers might also consider incorporating qualitative methodologies

(e.g., interviews and focus groups) to better illuminate the interrelationship between cultural variables with help-seeking intentions and behaviours among Chinese Canadians and would offer the opportunity to understand their inner experiences. Using mixed methods would shed light on additional factors that may account for additional variables and provide a fuller picture of the help-seeking process.

Another potential limitation is the use of participants who were not currently experiencing distress or any issues or seeking help may have also influenced the results of the study. Different factors may be at work for those who experience more distress and have considered seeking help for their issue as compared to those who have not. Vogel and colleagues (2007) have shown that those who are not distressed report a similar decision-making process in regard to help-seeking as those currently distressed, suggesting that the current findings may still apply. Future research may want to validate this model in a distressed sample and examine whether the model changes on the basis of the presenting issue.

On another related note, help-seeking intentions was measured based on hypothetical situations that participants may or may not find distressing. This may not reflect reality and so, in an actual distressing situation, participants may think, feel, and behave differently. Even though we measure actual help-seeking behaviours, due to a small few who have sought help in the past and currently, it is hard to make any conclusions on how intentions are related to help-seeking behaviours. Future research should extend to the examination of how help-seeking intentions is related to future behavioural outcome, namely actual help-seeking behaviours when individuals encounter mental health problems. Although intentions have been shown to be one of the best indicators of behaviour, determining who actually seeks help is an important next step in the help-seeking literature.

Considering that there are over 50 different Asian and Asian Canadian ethnic groups in Canada, conceptualizing "Asian" cultural values is problematic because there may be variances among different ethnic groups. The term "Asian" refers to people whose ancestors originates in a variety of regions with vastly different cultural values and practices (e.g., China, Korean, Japan, India, and Southeast Asia). Using one questionnaire labeled Asian values is likely to obscure important variability within the group. This is the case as well for the conceptualization of "European-American" values as there may be important differences with Canadian values.

Despite these limitations, these data provide useful information about the help-seeking process of second generation Chinese Canadians. This empirical approach to understanding a comprehensive model of Chinese Canadians' intentions to seek help may lead to new information on how to develop evidenced-based interventions to maximize Chinese Canadians' utilization of mental health services. Further advancements in intervention programs designed to decrease individual's experiences of stigma as well as developing interventions that could help therapists have a better understanding of Chinese Canadian clients, would help in provision of more culturally-based interventions. My hope is that the present findings will stimulate further exploration of explanatory mechanisms that underlie the help-seeking process among Chinese Canadians, as well as benefit those who work with Chinese Canadians.

Conclusion

In sum, this present study served as an important step in further understanding the help-seeking process among second generation Chinese Canadians. This is a first study to examine the Theory of Planned Behaviour using both direct and indirect in three ways. Overall, the findings support the application of the TPB for predicting help-seeking intentions and

behaviours among second generation Chinese Canadians. This study also provides further evidence of a multidimensional conceptualization for perceived behavioural control in including self-efficacy/confidence and perceived control. In addition, cultural factors such as Asian values, Canadian identity, anticipated benefits and risks, self-concealment, and self-stigma seem to play different roles in predicting attitudes, subjective norms, and perceived behavioural control, and how that in turn may affect help-seeking intentions and behaviours. The case of additional variables to the TPB for use with Asians and Chinese has been made elsewhere (e.g., Bagozzi, Wong, Abe, & Bergami, 2000; Kim & Park, 2009), and our inclusion of cultural variables suggests that the TPB can be modified to be culturally appropriate for second generation Chinese Canadians. The assumption that second generation individuals are able to access services because they are fluent in English and familiar with the health care system may be very much erroneous and must be challenged. A strength of this study is the use of a bilinear approach to measuring acculturation (e.g., values and identity). This emphasis resulted in a broader understanding of contextual variations in acculturation adaptation. The present findings are important in providing insight and understanding in the process of help-seeking among second generation Chinese Canadians, and has important implications on interventions. Such interventions should target attitudes, subjective norms, and perceived behavioural control related to help-seeking. Mental health professionals that serve this population need to understand potential causes and influences of initial conflict to treatment, as well as low treatment utilization levels from a socio-cultural perspective. Appropriate interventions to increase utilization levels can be formulated and implemented to address underlying stigma and conflict to treatment. With the identified need for mental health services in Chinese Canadians, more empirical research of Western theoretical models must be conducted to advance our

understanding of help-seeking among different cultural groups and to develop intervention strategies that are culturally relevant to different populations.

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APPENDICES

Appendix A

Information Letter

Name of researcher: **Andrea Lee**
Ph.D. Student, Clinical Psychology
School of Psychology, University of Ottawa
Tel: (613) 562-5800, ext. 2246

Research supervisor: **Dr. Marta Young**
Ph.D., C.Psych.
School of Psychology, University of Ottawa
Email: myoung@uottawa.ca
Tel: (613) 562-5800, ext. 4823

Foremost, we would like to thank you for your interest in the present study. This study is conducted under the supervision of Dr. Marta Young of the School of Psychology at the University of Ottawa. This investigation seeks to understand the help-seeking process among second generation Chinese Canadians in the Montreal region.

Your participation will consist essentially of attending one brief meeting during which you will complete a questionnaire, which will take about an hour. You will be able to choose when and where the meeting occurs, or you can come to our university office. If you decide to complete the questionnaire, you will be asked questions about your values, beliefs, feelings, attitudes, intentions, and behaviours about mental health and help-seeking of mental health services.

It is possible that some questions in the survey will cause you to experience feelings or thoughts of discomfort. Remember that you can refuse to participate in this study and that you are free to withdraw from the project at any time. You may also choose not to answer certain questions without prejudice from the researchers. If at any time you find yourself getting distressed, please feel free to contact Dr. Young or to call one of the organizations listed on the resource list.

All information collected in the study will remain strictly confidential. Furthermore, anonymity will be assured by identifying your questionnaire with a number that cannot be traced back to you. As well, the collected information will only be used for research purposes. In reporting findings, the researchers will only discuss a summary of the results obtained from all participants in the study. The questionnaires will be kept in a secure, locked storage room on the University of Ottawa campus for ten years at which time they will be shredded.

Any information requests or complaints about the ethical conduct of the project may be addressed to the Protocol Officer for Ethics in Research (University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel: (613) 562-5387, email: ethics@uottawa.ca). Please feel free to keep this letter for your information and records. If you have any questions or concerns about this research project, or if you are interested in receiving a summary of the findings of this study, feel free to contact Andrea Lee 613-562-5800, ext. 2246.

Appendix B

uOttawa

L'Université canadienne
Canada's university

Study on Help-Seeking among Second Generation Chinese Canadians

Thank you for your interest. My name is **Andrea Lee**, doctoral candidate at the University of Ottawa in the School of Psychology. I am conducting this study as part of my dissertation and I would greatly appreciate your participation.

The main aim of this study is to better understand the help-seeking process of second generation Chinese Canadians in an effort to gain a greater understanding of the psychological and cultural factors which promote and prohibit the seeking of formal mental health services. This study is conducted under the supervision of **Dr. Marta Young**, a professor in the School of Psychology at the University of Ottawa.

To participate you fill out a web-based questionnaire. This will take about an hour or less to complete. You will be asked questions about your values, beliefs, feelings, attitudes, intentions, and behaviours about mental health and help-seeking of mental health services.

If you are interested in participating in this study, please read over the rest of this page carefully and then click the link below to start the questionnaire.

- **Participation** - Since some of these questions deal with personal aspects of yourself and your family life, you might feel uncomfortable. Remember that you can refuse to participate in the study and you are free to withdraw from the project at any time. You may also choose not to answer certain questions without prejudice.
- **Privacy and Confidentiality** - All information collected in the study will remain strictly confidential. The website administrator will not examine the source of completed surveys and the researchers will obtain only the submitted data. No one besides the website administrator and the researchers will be able to access your information when you send it. All of the information you provide will be anonymous. You will not be asked to give your name. No individual responses from this study will be published. In short, every effort has been made to ensure your privacy. To protect the confidentiality of your response, please remember to close the web browser after you finish the study so that it is not possible for someone to hit the "back" button and see your responses.
- Please note that this survey uses SurveyGizmo(TM) whose computer servers are located in the USA. Consequently, USA authorities under provisions of the Patriot Act may

access this survey data. If you prefer not to submit your data through SurveyGizmo(TM), please contact the researcher so you can participate using an alternative method (paper-based questionnaire).

- **Use of Information** - As well, the collected information will be used solely for research purposes. In reporting findings, the researchers will discuss a summary of the results obtained from all participants in the study. Electronic data will be disposed of at the end of data collection by erasing it from the hard disc. Prior to disposal, information will be saved on a password-protected USB key that will be stored for ten years in a locked filing cabinet of the cross-cultural lab located at University of Ottawa campus. After ten years, the USB key will be destroyed.
- **Ethics** - Any information requests or complaints about the ethical conduct of the project may be addressed to the Protocol Officer for Ethics in Research (University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel: (613) 562-5387, email: ethics@uottawa.ca).
- **System Requirements** - This Web-based questionnaire works best with recent versions of most popular web browsers. If you experience problems, or find that pages are loading too slowly, you may choose instead to obtain a paper and pencil version of this questionnaire by contacting the researcher. A questionnaire and postage paid return envelope will be delivered to you within 24 hours of your request.

Please feel free to **print this letter** and to keep it for your information.
If you have any **questions or concerns** about this research project, or if you are interested in receiving a summary of the findings of this study, feel free to contact the researcher.

Thank you for your interest in the Web-based Study of Help-Seeking among Second Generation Chinese-Canadians. Completion of the survey indicates your consent to participate in the study.

If you agree to participate, please click to start the questionnaire.

If you have any questions or concerns about the study, please feel free to contact myself or my supervisor:

Andrea Lee, Doctoral Candidate
136 Jean Jacques Lussier (Vanier Hall)
University of Ottawa - School of Psychology
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Marta Young, Ph.D., Project Supervisor
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Appendix C

Resource Sheet

Thank you very much for having participated in the survey study entitled: Help-Seeking among Second Generation Chinese Canadians.

Completing this questionnaire may have raised some questions about your mental health or current difficulties in your life. Should this be the case, please contact the following resources so that you can discuss your concerns.

Psychologists providing services for psychological well-being for individuals, couples, and families:

Applied Psychology Centre (APC) at Concordia University
7141 Sherbrooke Street West
Loyola Campus, Psychology buiding PY-111
Montreal, QC H4B 1R6
(514) 848-2424 ext. 7550

Counseling and Development at Concordia University
7141 Sherbrooked Street West
Loyola Campus, AD-103
Montreal, QC H4B 1R6
(514) 848-2424 ext. 3555

Counseling and Development at Concordia University
1455 de Maisonneuve W.
Sir George Williams Campus, H-440
Montreal, QC H3G 1M8
(514) 848-2424 ext. 3545

Counseling Services at McGill University
(free of charge for McGill students)
Brown Student Services Building
3600 McTavish St, suite 4200
Montreal, QC H3A 0G3
(514) 398-3601

Information and Referral Centre of Greater Montreal
http://www.info-reference.qc.ca/www/Home.php?locale=en-CA
(514) 527-1375

CLSC Metro (514) 934-0354
CLSC NDG/Montreal West (514) 485-1670
TRACOM Centre for Crisis Intervention (514) 483-3033

Montreal Sexual Assault Center (514) 934-4504
Suicide Action Montreal (514) 723-4000
Depressed Anonymous (514) 278-2130
Tel-Aide (514) 935-1101

Websites on mental health:

http://cpa.ca
Canadian Psychological Association

http://apa.org
American Mental Health Association

Appendix D

Questionnaire Package

INSTRUCTIONS: Remember, there are no "wrong" answers, and the only right ones are whatever you honestly feel or believe. Circle the response that seems closest to your feelings about the statement. It is important that you answer every item.

DEMOGRAPHIC QUESTIONNAIRE

Please answer the following questions:

1. What is your age? _____
2. What is your sex? _____
3. What is your country of birth? _____
4. Have you ever lived in another country (other than Canada)? ____ Yes ____ No

   If yes, where and for how long? _____
5. What is your father's country of birth? _____

   If your father was NOT born in China, Hong Kong, or Taiwan, in which country was he born? _____
6. What is your mother's country of birth? _____

   If your mother was NOT born in China, Hong Kong, or Taiwan, in which country was she born? _____
7. What is your religion (e.g. Buddhist, Taoist, Catholic, Protestant, Agnostic, Atheist)? _____
8. What is your mother tongue? _____
9. What other languages do you speak? _____
10. What year of your program are you in (e.g. 2nd year of a BA, 1st year of a Ph.D)? _____
11. What is your major? _____
12. What is your father's occupation? _____
13. What is your mother's occupation? _____
14. With whom do you currently live (e.g., roommate, parents, alone)? _____
15. If you are no longer living at home, how old were you when you left? _____
16. In which city do you currently live? _____

17. Are you a
    ____ Canadian citizen by birth
    ____ Canadian citizen by naturalization
    ____ Landed immigrant

18. Why did your parents leave China, Hong Kong, or Taiwan? Please choose the **most** important reason.

    ____ Political reasons
    ____ Economic reasons
    ____ Educational reasons
    ____ Other (please specify) _____

19. What year did your father arrive in Canada (if applicable)? _____

20. What year did your mother arrive in Canada (if applicable)? _____

21. What is your current relationship status?

    ____ Single
    ____ Dating
    ____ Engaged
    ____ Common Law
    ____ Married
    ____ Separated/Divorced

22. If you are currently in a relationship, please indicate how long you have been together: _____

23. If you are currently in a relationship, please indicate your partner's ethnic heritage or ancestry:
    _____

PAST HELP-SEEKING BEHAVIOURS

Have you ever seen a mental health professional (school counsellor, counsellor/psychotherapist, psychologist, psychiatrist) for emotional problems?

YES NO

If NO, please proceed to the next page.

If YES, please circle what type of mental health professional it was.

School Counsellor Counsellor/Psychotherapist Psychologist Psychiatrist

Other (specify) _____

If YES, how many visits (approximately) did you have with the mental health professional?_____

Extremely Unhelpful **Moderately Unhelpful** **Mildly Unhelpful** **Neither Helpful nor Unhelpful** **Mildly Helpful** **Moderately Helpful** **Extremely Helpful**

1- - - - - - - - - - - - 2 - - - - - - - - - - - - 3 - - - - - - - - - - - 4 - - - - - - - - - - -5 - - - - - - - - - - - - -6 - - - - - - - - - - 7

If **YES**, please indicate how helpful you found it.

	Extremely Unhelpful	*Moderately Unhelpful*	*Mildly Unhgelpful*	*Neither Helpful nor*	*Mildly Helpful*	*Moderately Helpful*	*Extremely Helpful*
1. Seeing a school counsellor for my emotional problems was	1	2	3	4	5	6	7
2. Seeing a counselor/psychotherapist for my emotional problems was	1	2	3	4	5	6	7
3. Seeing a psychologist for my emotional problems was	1	2	3	4	5	6	7
4. Seeing a psychiatrist for my emotional problems was	1	2	3	4	5	6	7
5. Seeing a mental health professional (not listed above) for my emotional problems was	1	2	3	4	5	6	7

Brief Symptom Inventory – 18 (BSI-18)

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

We are interested in how you feel about the following statements. Read each statement carefully and indicate how you feel about each statement:

Very Strongly Disagree **Strongly Disagree** **Mildly Disagree** **Neutral** **Mildly Agree** **Strongly Agree** **Very Strongly Agree**

1- - - - - - - - - - - - **2** - - -- - - - - **3** - - - - - - - **4** - - - - - - - - - - **5** - - - - - - - - - **6** - - - - - - - - - - - **7**

	Very Strongly	*Strongly Disagree*	*Mildly Disagree*	*Neutral*	*Mildly Agree*	*Strongly Agree*	*Very Strongly*
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with who I can share my joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friend with who I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

SELF-CONCEALMENT SCALE

Strongly Disagree — Disagree — Neutral — Agree — Strongly Agree

1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4 - - - - - - - - - - - - - - 5

Read each statement carefully and indicate how closely each statement applies to you. It is important that you answer every item.	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
1. I have an important emotional issue that I haven't shared with anyone.	1	2	3	4	5
2. If I shared all my emotional issues with my friends, they'd like me less.	1	2	3	4	5
3. There are lots of things about me that I keep to myself.	1	2	3	4	5
4. Some of my emotional issues have really tormented me.	1	2	3	4	5
5. When something bad happens to me, I tend to keep it to myself.	1	2	3	4	5
6. I'm often afraid I'll reveal something I don't want to	1	2	3	4	5
7. Disclosing an emotional issue often backfires and I wish I hadn't told it.	1	2	3	4	5
8. I have an emotional issue that is so private I would lie if anybody asked me about it.	1	2	3	4	5
9. My emotional issues are too embarrassing to share with others.	1	2	3	4	5
10. I have negative thoughts about myself that I never share with anyone	1	2	3	4	5

INTENTIONS TO SEEK COUNSELING INVENTORY – CULTURAL REVISION

The following list states a number of reasons why people decide to seek therapy. Read each item carefully and **imagine that you were experiencing the same problem**. Please indicate how likely you would be to seek therapy if you were experiencing the same problem using the following scale:

Very Unlikely Unlikely Doubtful Possibly Likely Very Likely

1 - - - - - - - - - - 2 - - - - - - - - - - 3 - - - - - - - - - - 4 - - - - - - - - - - 5 - - - - - - - - - - 6

		Very Unlikely	*Unlikely*	*Doubtful*	*Possibly*	*Likely*	*Very Likely*
1.	Weight problems	1	2	3	4	5	6
2.	Excessive alcohol use	1	2	3	4	5	6
3.	Relationship difficulties (i.e., romantic partners)	1	2	3	4	5	6
4.	Concerns about sexuality	1	2	3	4	5	6
5.	Depression	1	2	3	4	5	6
6.	Conflicts with parents	1	2	3	4	5	6
7.	Speech anxiety	1	2	3	4	5	6
8.	Difficulties dating	1	2	3	4	5	6
9.	Choosing a major	1	2	3	4	5	6
10.	Difficulty sleeping	1	2	3	4	5	6
11.	Drug problems	1	2	3	4	5	6
12.	Inferiority feelings	1	2	3	4	5	6
13.	Test anxiety	1	2	3	4	5	6
14.	Difficulties with friends	1	2	3	4	5	6
15.	Academic work procrastination	1	2	3	4	5	6
16.	Self-understanding (i.e., personal growth)	1	2	3	4	5	6
17.	Loneliness	1	2	3	4	5	6
18.	Physical health problems	1	2	3	4	5	6
19.	Exploring ethnic identity	1	2	3	4	5	6
20.	Emotional reactions to racism, prejudice or discrimination	1	2	3	4	5	6

INVENTORY OF ATTITUDES TOWARD SEEKING MENTAL HEALTH SERVICES

The term *professional* refers to individuals who have been trained to deal with mental health problems (e.g., psychologists, psychiatrists, social workers, and family physicians). The term "*psychological problems"* refers to reasons one might visit a professional. Similar terms include *mental health concerns, emotional problems, mental troubles,* and *personal difficulties.*

Disagree Somewhat Disagree Undecided Somewhat Agree Agree

0 -- - - - - - - - -1 - - - - - - - - - - 2 - - - - - - - - - -3 - - - - - - - - - - -4

For each item, circle the response that seems to best apply to you.	*Disagree*	*Somewhat Disagree*	*Undecided*	*Somewhat Agree*	*Agree*
1. There are certain problems which should not be discussed outside of one's immediate family.	0	1	2	3	4
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems.	0	1	2	3	4
3. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.	0	1	2	3	4
4. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns.	0	1	2	3	4
5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional.	0	1	2	3	4
6. Having been mentally ill carries with it a burden of shame.	0	1	2	3	4
7. It is probably best not to know everything about oneself.	0	1	2	3	4
8. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy.	0	1	2	3	4
9. People should work out their own problems; getting professional help should be a last resort.	0	1	2	3	4
10. If I were to experience psychological problems, I could get professional help if I wanted to.	0	1	2	3	4
11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems.	0	1	2	3	4
12. Psychological problems, like many things, tend to work out by themselves.	0	1	2	3	4

13. It would be relatively easy for me to find the time to see a professional for psychological problems.	0	1	2	3	4
14. There are experiences in my life I would not discuss with anyone.	0	1	2	3	4
15. I would want to get professional help if I were worried or upset for a long period of time.	0	1	2	3	4
16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it.	0	1	2	3	4
17. Having been diagnosed with a mental disorder is a blot on a person's life.	0	1	2	3	4
18. There is something admirable in the attitudes of people who are willing to cope with their conflicts and fears without resorting to professional help.	0	1	2	3	4
19. If I believed I were having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3	4
20. I would feel uneasy going to a professional because of what some people would think.	0	1	2	3	4
21. People with strong characters can get over psychological problems by themselves and would have little need for professional help.	0	1	2	3	4
22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.	0	1	2	3	4
23. Had I received treatment for psychological problems, I would not feel that it ought to be "covered up."	0	1	2	3	4
24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems.	0	1	2	3	4

DISCLOSURE EXPECTATIONS SCALE

The term "mental health professional" refers to any of the following persons: psychologists, psychiatrist, counsellor, or clinical social worker.

Not at all Slightly Somewhat Moderately Very

1 - - - - - - - - - - 2 - - - - - - - - - 3 - - - - - - - - - 4 - - - - - - - - - -5

Please circle your answer to the following items:	*Not at all*	*Slightly*	*Somewhat*	*Moderately*	*Very*
1. How difficult would it be for you to disclose personal information to a mental health professional?	1	2	3	4	5
2. How vulnerable would you feel if you disclosed something very personal you had never told anyone before to a mental health professional?	1	2	3	4	5
3. If you were dealing with an emotional problem, how beneficial for yourself would it be to self-disclose personal information about the problem to a mental health professional?	1	2	3	4	5
4. How risky would it be to disclose your hidden feelings to a mental health professional?	1	2	3	4	5
5. How worried about what the other person is thinking would you be if you disclosed negative emotions to a mental health professional?	1	2	3	4	5
6. How helpful would it be to self-disclose a personal problem to a mental health professional?	1	2	3	4	5
7. Would you feel better if you disclosed feelings of sadness or anxiety to a mental health professional?	1	2	3	4	5
8. How likely would you get a useful response if you disclosed an emotional problem you were struggling with to a mental health professional?	1	2	3	4	5

SELF-STIGMA OF SEEKING PSYCHOLOGICAL HELP SCALE

People at time find that they face problems for which they consider seeking help. This can bring up reactions about what seeking help would mean. Please rate the degree to which each item describes how you might react in this situation.

Strongly Disagree **Disagree** **Neutral** **Agree** **Strongly Agree**

- - - - -1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - 3 - - - - - - - - - - - 4 - - - - - - - - - - - - - 5

	Strongly Disagree	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
1. I would feel inadequate if I went to a mental health professional for psychological help.	1	2	3	4	5
2. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4	5
3. Seeking psychological help would make me feel less intelligent.	1	2	3	4	5
4. My self-esteem would increase if I talked to a mental health professional.	1	2	3	4	5
5. My view of myself would not change just because I made the choice to see a mental health professional.	1	2	3	4	5
6. It would make me feel inferior to ask a mental health professional for help.	1	2	3	4	5
7. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4	5
8. If I went to a mental health professional, I would be less satisfied with myself.	1	2	3	4	5
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.	1	2	3	4	5
10. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

CULTURAL STIGMA FOR SEEKING PSYCHOLOGICAL HELP

Strongly Disagree Disagree Neutral Agree
- - - - - - - - - - - 1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4

For the following items, please indicate how much you agree with each statement:	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*
1. Seeing a mental health professional for emotional or interpersonal problems carries a stigma *in my Canadian community*.	1	2	3	4
2. It is a sign of personal weakness or inadequacy *in my Canadian community*.to see a mental health professional for emotional or interpersonal problems.	1	2	3	4
3. People *in my Canadian community*.will see each other in a less favourable way if they come to know someone has seen a mental health professional.	1	2	3	4
4. It is advisable for a person *in my Canadian community*.to hide that s/he has seen a mental health professional.	1	2	3	4
5. People *in my Canadian community*.tend to like less those who are receiving professional psychological help.	1	2	3	4

CULTURAL STIGMA FOR SEEKING PSYCHOLOGICAL HELP

Strongly Disagree Disagree Neutral Agree
- - - - - - - - 1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4

For the following items, please indicate how much you agree with each statement:	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*
1. Seeing a mental health professional for emotional or interpersonal problems carries a stigma *in my Chinese community*	1	2	3	4
2. It is a sign of personal weakness or inadequacy *in my Chinese community* to see a mental health professional for emotional or interpersonal problems.	1	2	3	4
3. People *in my Chinese community* will see each other in a less favourable way if they come to know someone has seen a mental health professional.	1	2	3	4
4. It is advisable for a person *in my Chinese community* to hide that s/he has seen a mental health professional.	1	2	3	4
5. People *in my Chinese community* tend to like less those who are receiving professional psychological help.	1	2	3	4

MULTIDIMENSIONAL MENTAL HEALTH LOCUS OF CONTROL

Each item below is a belief statement about your mental health with which you may agree or disagree. For each item, please circle the number that represents the extent to which you agree or disagree with that statement. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there is no right or wrong answer.

Strongly Disagree **Moderately Disagree** **Slightly Disagree** **Slightly Agree** **Moderately Agree** **Strongly Agree**

1 - - - - - - - - - - - - 2 - - - - - - - - 3 - - - - - - - 4 - - - - - - - - - - - 5 - - - - - - - - 6

		Strongly Disagree	*Moderately Disagree*	*Slightly Disagree*	*Slightly Agree*	*Moderately Agree*	*Strongly Agree*
1.	If I get a mental illness, it is my own behaviour which determines how soon I get well again.	1	2	3	4	5	6
2.	No matter what I do, if I am going to get a mental illness, I will get a mental illness.	1	2	3	4	5	6
3.	If I see a mental health professional regularly, I am less likely to have mental health problems.	1	2	3	4	5	6
4.	Most things that affect my mental health happen to me by accident.	1	2	3	4	5	6
5.	Whenever I don't feel emotionally well, I should consult a mental health professional.	1	2	3	4	5	6
6.	I am in control of my mental health.	1	2	3	4	5	6
7.	My family has a lot to do with whether I stay mentally healthy or get a mental illness.	1	2	3	4	5	6
8.	If I get a mental illness, I am to blame.	1	2	3	4	5	6
9.	Luck plays a big part in determining how soon I will recover from a mental illness.	1	2	3	4	5	6
10.	Mental health professionals control my mental health.	1	2	3	4	5	6
11.	My good health is largely a matter of good fortune.	1	2	3	4	5	6
12.	My psychological well-being depends on how well I take care of myself.	1	2	3	4	5	6

13.	If I take care of myself, I can avoid mental illness.	1	2	3	4	5	6
14.	If I recover from mental illness, it's usually because other people (for example, mental health professionals, family, friends) have been taking good care of me.	1	2	3	4	5	6
15.	Even when I take care of myself, it’s easy to get a mental illness.	1	2	3	4	5	6
16.	If it's meant to be, I will stay mentally healthy.	1	2	3	4	5	6
17.	If I take the right actions, I can stay mentally healthy.	1	2	3	4	5	6
18.	Regarding my mental health, I can only do what mental health professionals tell me to do.	1	2	3	4	5	6

MENTAL HEALTH SELF-EFFICACY

Each item below is a belief statement about your mental health with which you may agree or disagree. For each item, please circle the number that represents the extent to which you agree or disagree with that statement. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there is no right or wrong answer.

Strongly Disagree **Moderately Disagree** **Slightly Disagree** **Slightly Agree** **Moderately Agree** **Strongly Agree**

- - - - -1 - - - - - -- - - - 2 - - - - - - - - - - - 3 - - - - - - - - - - - 4 - - - - - - - 5 - - - - - - - - - - - 6

	Strongly Disagree	*Moderately Disagree*	*Slightly Disagree*	*Slightly Agree*	*Moderately Agree*	*Strongly Agree*
1. I know that I can do what is necessary to improve my mental health	1	2	3	4	5	6
2. I am confident that I can successfully look after my mental health.	1	2	3	4	5	6
3. Even though there are things I can do to improve my mental health, I don't feel that I can do them.	1	2	3	4	5	6
4. I am able to meet the challenge of following a mentally health routine.	1	2	3	4	5	6
5. When facing a mental health/emotional problem, I often feel overwhelmed about what to do.	1	2	3	4	5	6
6. I am confident that I could deal with any unexpected mental health problems.	1	2	3	4	5	6
7. I am confident in my ability to make the right decisions about my mental health.	1	2	3	4	5	6
8. When it comes to my mental health, I often feel unable to do what I know should be done.	1	2	3	4	5	6

ASIAN AMERICAN VALUES SCALE – MULTIDIMENSIONAL

Read each statement carefully and indicate the extent to which you agree with the value expressed in each statement:

Strongly Disagree **Moderately Disagree** **Mildly Disagree** **Neither Agree nor Disagree** **Mildly Agree** **Moderately Agree** **Strongly Agree**

- - - -1- - - - - - - - - 2 - - - - - - - - 3 - - - - - - - - - - - 4 - - - - - - - -5 - - - - - - - - - - -6 - - - - - - - - - - - 7

	Strongly Disagree	*Moderately Disagree*	*Mildly Disagree*	*Neither Agree Nor*	*Mildly Agree*	*Moderately Agree*	*Strongly Agree*
1. One should recognize and adhere to the social expectations, norms, and practices.	1	2	3	4	5	6	7
2. The welfare of the group should be put forth before that of the individual.	1	2	3	4	5	6	7
3. It is better to show emotions than to suffer quietly.	1	2	3	4	5	6	7
4. One should go as far as one can academically and professionally on behalf of one's family.	1	2	3	4	5	6	7
5. One should be able to boast about one's achievement.	1	2	3	4	5	6	7
6. One's personal needs should be second to the needs of the group.	1	2	3	4	5	6	7
6. One should not express strong emotions. 7.	1	2	3	4	5	6	7
8. One's academic and occupational reputation reflects the family's reputation.	1	2	3	4	5	6	7
9. One should be able to draw attention to one's accomplishments.	1	2	3	4	5	6	7
10. The needs of the community should supersede those of the individual.	1	2	3	4	5	6	7
11. One should adhere to the values, beliefs, and behaviours that one's society considers normal and acceptable.	1	2	3	4	5	6	7
12. Succeeding occupationally is an important way of making one's family proud.	1	2	3	4	5	6	7
13. Academic achievement should be highly valued among family members.	1	2	3	4	5	6	7

	Strongly Disagree	*Moderately Disagree*	*Mildly Disagree*	*Neither Agree nor*	*Mildly Agree*	*Moderately Agree*	*Strongly Agree*
14. The group should be less important than the individual.	1	2	3	4	5	6	7
15. One's emotional needs are less important than fulfilling one's responsibilities.	1	2	3	4	5	6	7
16. Receiving awards for excellence need not reflect well on one's family.	1	2	3	4	5	6	7
17. One should achieve academically since it reflects well on one's family.	1	2	3	4	5	6	7
18. One's educational success is a sign of personal and familial character.	1	2	3	4	5	6	7
19. One should not sing one's own praises.	1	2	3	4	5	6	7
20. One should not act based on emotions.	1	2	3	4	5	6	7
21. One should work hard so that one won't be a disappointment to one's family.	1	2	3	4	5	6	7
22. Making achievements is an important way to show one's appreciation for one's family.	1	2	3	4	5	6	7
23. One's efforts should be directed toward maintaining the well-being of the group first and the individual second.	1	2	3	4	5	6	7
24. It is better to hold one's emotions inside than to burden others by expressing them.	1	2	3	4	5	6	7
25. One need not blend in with society.	1	2	3	4	5	6	7
26. Being boastful should not be a sign of one's weakness and insecurity.	1	2	3	4	5	6	7
27. Conforming to norms provides order in the community.	1	2	3	4	5	6	7
28. Conforming to norms provides one with identity.	1	2	3	4	5	6	7
29. It is more important to behave appropriately than to act on what one is feeling.	1	2	3	4	5	6	7
30. One should not openly talk about one's accomplishments.	1	2	3	4	5	6	7
31. Failing academically brings shame to one's family.	1	2	3	4	5	6	7
	Strongly Disagree	*Moderately*	*Mildly Disagree*	*Neither Agree*	*Mildly Agree*	*Moderately*	*Strongly Agree*

32. One should be expressive with one's feelings.	1	2	3	4	5	6	7
33. Children's achievements need not bring honour to their parents.	1	2	3	4	5	6	7
34. One need not sacrifice oneself for the benefit of the group.	1	2	3	4	5	6	7
35. Openly expressing one's emotions is a sign of strength.	1	2	3	4	5	6	7
36. One's achievement and status reflect on the whole family.	1	2	3	4	5	6	7
37. One need not always consider the needs of the group first.	1	2	3	4	5	6	7
38. It is one's duty to bring praise through achievement to one's family.	1	2	3	4	5	6	7
39. One should not do something that is outside of the norm.	1	2	3	4	5	6	7
40. Getting into a good school reflects well on one's family.	1	2	3	4	5	6	7
41. One should be able to brag about one's achievements.	1	2	3	4	5	6	7
42. Conforming to norms is the safest path to travel.	1	2	3	4	5	6	7

EUROPEAN AMERICAN VALUES SCALE FOR ASIAN AMERICANS

Strongly Disagree — Disagree — Agree — Strongly Agree

1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4

Indicate the extent to which you agree with the value expressed in each statement:	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
1. I think it's fine for an unmarried woman to have a child.	1	2	3	4
2. Sometimes, it is necessary for the government to stifle individual development.	1	2	3	4
3. You can do anything you put your mind to.	1	2	3	4
4. Single women should not have children and raise them alone.	1	2	3	4
5. I prefer not to take on responsibility unless I must.	1	2	3	4
6. I do not like to serve as a model for others.	1	2	3	4
7. It is okay if work interferes with the rest of my life.	1	2	3	4
8. It is okay to allow others to restrict one's sexual freedom.	1	2	3	4
9. No one is entitled to complete sexual freedom without restriction.	1	2	3	4
10. A woman should not have a child unless she is in a long-term relationship.	1	2	3	4
11. I follow my supervisor's instructions even when I do not agree with them.	1	2	3	4
12. The world would be a better place if each individual could maximize his or her development.	1	2	3	4
13. Partners do not need to have similar values in order to have a successful marriage.	1	2	3	4
14. I cannot approve of abortion just because the mother's health is at risk.	1	2	3	4
15. It is okay for a woman to have a child without being in a	1	2	3	4

permanent relationship.				
16. Friends are very important.	1	2	3	4
17. Faithfulness is very important for a successful marriage.	1	2	3	4
18. Monetary compensation is not very important for a job.	1	2	3	4
19. A student does not always need to follow the teacher's instructions.	1	2	3	4
20. Luck determines the course of one's life.	1	2	3	4
21. Cheating on one's partner doesn't make a marriage unsuccessful.	1	2	3	4
22. Greater emphasis on individual development is not a good thing.	1	2	3	4
23. I have always enjoyed serving as a model for others.	1	2	3	4
24. Being humble is better than expressing feelings of pride.	1	2	3	4
25. Faithfulness is not important for a successful marriage.	1	2	3	4

MULTIGROUP ETHNIC IDENTITY MEASURE (Chinese Identity)

Strongly Disagree **Disagree** **Agree** **Strongly Agree**
1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4

Indicate how much you agree or disagree with each statement:	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
1. I have spent time trying to find out more about my Chinese heritage, such as its history, traditions, and customs.	1	2	3	4
2. I am active in organizations or social groups that include mostly members of my Chinese group.	1	2	3	4
3. I have a clear sense of my Chinese background and what it means for me.	1	2	3	4
4. I think a lot about how my life will be affected by my Chinese group membership.	1	2	3	4
5. I am happy that I am a member of the Chinese group I belong to.	1	2	3	4
6. I have a strong sense of belonging to my Chinese group.	1	2	3	4
7. I understand pretty well what my Chinese group membership means to me.	1	2	3	4
8. In order to learn more about my Chinese background, I have often talked to other people about my Chinese group.	1	2	3	4
9. I have a lot of pride in my Chinese group.	1	2	3	4
10. I participate in cultural practices of my Chinese group, such as special food, music, or customs.	1	2	3	4
11. I feel a strong attachment towards my Chinese group.	1	2	3	4
12. I feel good about my Chinese background.	1	2	3	4

MULTIGROUP ETHNIC IDENTITY MEASURE (Canadian Identity)

Strongly Disagree **Disagree** **Agree** **Strongly Agree**

1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4

Indicate how much you agree or disagree with each statement:	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
1. I have spent time trying to find out more about my Canadian heritage, such as its history, traditions, and customs.	1	2	3	4
2. I am active in organizations or social groups that include mostly members of my Canadian group.	1	2	3	4
3. I have a clear sense of my Canadian background and what it means for me.	1	2	3	4
4. I think a lot about how my life will be affected by my Canadian group membership.	1	2	3	4
5. I am happy that I am a member of the Canadian group I belong to.	1	2	3	4
6. I have a strong sense of belonging to my Canadian group.	1	2	3	4
7. I understand pretty well what my Canadian group membership means to me.	1	2	3	4
8. In order to learn more about my Canadian background, I have often talked to other people about my Canadian group.	1	2	3	4
9. I have a lot of pride in my Canadian group.	1	2	3	4
10. I participate in cultural practices of my Canadian group, such as special food, music, or customs.	1	2	3	4
11. I feel a strong attachment towards my Canadian group.	1	2	3	4
12. I feel good about my Canadian background.	1	2	3	4

FAMILY ALLOCENTRISM SCALE

Strongly Disagree **Moderately Disagree** **Neither Agree or Disagree** **Moderately Agree** **Strongly Agree**

1 - - - - - - - - - - - - - - 2 - - - - - - - - - - - - - - 3 - - - - - - - - - - - - - - 4 - - - - - - - - - - - - - - 5

Rate the extent to which you agree or disagree with each of the following statements:	*Strongly Disagree*	*Moderately Disagree*	*Neither Agree or Disagree*	*Moderately Agree*	*Strongly Agree*
1. I am very similar to my parents.	1	2	3	4	5
2. I work hard at school/work to please my parents.	1	2	3	4	5
3. I follow my feelings even if it makes my parents unhappy.	1	2	3	4	5
4. I would be honoured by my family's accomplishments.	1	2	3	4	5
5. My ability to relate to my family is a sign of my competence as a mature person.	1	2	3	4	5
6. Once you get married, your parents should no longer be involved in major life choices.	1	2	3	4	5
7. The opinions of my parents are important to me.	1	2	3	4	5
8. Knowing that I need to rely on my family makes me happy.	1	2	3	4	5
9. I will be responsible for taking care of my aging parents.	1	2	3	4	5
10. If a family member fails, I feel responsible.	1	2	3	4	5
11. Even when away from home, I should consider my parents' values.	1	2	3	4	5
12. I would feel ashamed if I told my parents "no" when they asked me to do something.	1	2	3	4	5
13. My happiness depends on the happiness of my family.	1	2	3	4	5
14. I have certain duties and obligations in my family.	1	2	3	4	5
15. There are a lot of differences between me and other members of my family.	1	2	3	4	5
16. I think it is important to get along with my family at all costs.	1	2	3	4	5
17. I should not say what is on my mind in case it upsets my family.	1	2	3	4	5
18. My needs are not the same as my parents.	1	2	3	4	5
19. After I leave my parents' house, I am not accountable to them.	1	2	3	4	5
20. I respect my parents' wishes even if they are not my own.	1	2	3	4	5
21. It is important to feel independent from one's family.	1	2	3	4	5

Appendix E

THEORY OF PLANNED BEHAVIOUR QUESTIONNAIRE

Directions: This questionnaire asks about your attitudes and beliefs about seeking professional mental health treatment for you.

Seeking professional mental health treatment is defined as: individual and/or group therapy with a psychotherapist, psychologist, or psychiatrist. Psychological problem refers to: anxiety, depression, and severe stress which causes significant distress or interferes significantly with your daily living.

Attitudes

Seeking professional mental health treatment for psychological problems for myself would be:

Good :___1__:___2__:___3__:___4__:___5__:___6__:___7___: Bad
Wise :___1__:___2__:___3__:___4__:___5__:___6__:___7___: Foolish
Helpful :___1__:___2__:___3__:___4__:___5__:___6__:___7___: Harmful
Useful :___1__:___2__:___3__:___4__:___5__:___6__:___7___: Useless
Acceptable :___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unacceptable

Subjective Norms

Rate how likely or unlikely it is that other person/group would want you to seek professional mental health treatment assuming that you are experiencing a psychological problem. Then rate the extent to which you would want to comply with what the other person/group wants you to do.

Likelihood they would want me to seek professional mental health treatment

Most people who are important to me
Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

My family
Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

My partner
Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

Friends
Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

Cultural/ethnic group
Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

I would want to comply with what they wanted me to do:

Most people who are important to me
Want:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not want

My family
Want:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not want

My partner
Want:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not want

Friends
Want:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not want

Cultural/ethnic group
Want:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not want

Perceived Behavioural Control (Confidence & Control)
How confident are you that you could seek professional mental health treatment if you were experiencing significant psychological problems?

Confident: ___1__:___2__:___3__:___4__:___5__:___6__:___7___: Not confident

How much control do you have over whether or not you seek professional mental health treatment?

Total Control:___1__:___2__:___3__:___4__:___5__:___6__:___7___: No control

Intention
I intend to seek professional mental health treatment if I experience:

Anxiety which causes significant distress or interferes significantly with my daily functioning

Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

Depression which causes significant distress or interferes significantly with my daily functioning

Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely

Severe stress which causes significant distress or interferes significantly with my daily functioning

Likely:___1__:___2__:___3__:___4__:___5__:___6__:___7___: Unlikely