EXAMINING HELP-SEEKING INTENTIONS OF CHINESE INDIVIDUALS: A PATH ANALYSIS

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Utilizing the theory of planned behavior, I examined the variables that affect Chinese individuals' help-seeking intention. A total of 251 Chinese individuals participated in this study. Results showed that the variables in the theory of planned behavior accounted for 16% of the variance in help-seeking intention. Specifically, attitude ($r = .22$, $p < .001$) and perceived behavioral control ($r = .22$, $p < .001$) were found to be significant predictors of help-seeking intention. Based on these results, mental health professionals can design outreach interventions, such as psychoeducational programs, to improve Chinese individuals' help-seeking attitude and perceived behavioral control in an attempt to increase mental health service utilization. Additionally, counselors can discuss with clients' their attitude and perceived behavioral control regarding seeking counseling in an attempt to assist clients in being committed to the counseling process.
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By

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EXAMINING HELP-SEEKING INTENTIONS OF CHINESE INDIVIDUALS:
A PATH ANALYSIS

Underutilization of mental health services is a major global health concern (Yu et al., 2015). In the United States, the rate of underutilization of mental health services by individuals suffering from mental disorders has been found to be approximately 61% (Kessler et al., 2005; Substance Abuse and Mental Health Services Administration, 2011). Because mental disorders fall under the larger umbrella of mental health concerns, it can be argued that the underutilization of mental health services is higher when considering people who struggle with mental health issues but do not yet warrant a mental health diagnosis.

Among the different races in the United States, the Asian population has been found to be especially vulnerable to the underutilization of mental health services (Abe-Kim et al., 2007; Kearney, Draper, & Baron, 2005; U.S. Department of Health and Human Services, 2014). This finding is concerning because the Asian population is the fastest growing group among all the major races in the United States (Pew Research Center, 2013; U.S. Census Bureau, 2012). It is projected that Asian Americans may make up almost 10% of the population in the United States by the year 2050 (U.S. Census Bureau). Among Asians subgroups, Chinese individuals comprise the largest Asian group that resides in the United States, accounting for more than 3 million individuals (U.S. Census Bureau). Records from the Chinese American Psychiatric Epidemiology Study (CAPES) suggested that only six percent of Chinese individuals who reported having mental health issues sought services from mental health professionals (Spencer & Chen, 2004).

Lack of treatment of mental health concerns has adverse negative consequences for people’s well-being as it is strongly associated with poor life outcomes such as lower vocational
achievements and challenging interpersonal and family dynamics (Bhatia & Bhatia, 2007). Furthermore, people with mental health issues tend to have shorter life span as compared to people who are mentally healthy due to high correlations between mental health problems and physical well-being. For example, individuals with poor mental health were found to suffer from increased case of heart disease, respiratory condition, stroke, diabetes, and suicide (Kessler, Foster, Saunders, & Stang, 1995; Mezuk, Eaton, Albrecht, & Golden, 2008; Rugulies, 2002). Although the aforementioned findings were primarily conducted using a Western sample, more recent research suggests that psychological distress or poor mental health are strongly associated with poor physical health for Chinese individuals as well (Li, Chan, Chung, & Chui, 2010; Mereish, Liu, & Helms, 2012). Thus, researching the underutilization of mental health services among Chinese population is crucial due to the potential detrimental effects it has on quality of life.

Previous researchers have sought to understand this pattern of underutilization of mental health services among the Asian population (e.g. Loo, Tong, & True, 1989; Tabora & Flaskerud, 1996; Takeuchi, Leaf, & Kuo, 1998; Ying & Miller, 1992). Research findings suggest that reasons for underutilization of mental health services by Asian individuals include negative attitude towards seeking help (Chang, 2008; Chang, 2014), stigma (Chang & Chang, 2004; Young & Ng, 2016), and low mental health literacy (Wong, Lam, Poon, & Chow, 2011). However, research on help-seeking intention and behavior often lacks cultural understanding (Eiraldi, Mazzuca, Clarke, & Power, 2006; Guo, Nguyen, Weiss, Ngo, & Lau, 2015). Cultural values are deemed to influence individuals’ decision to utilize mental health services (Chu & Sue, 2011). Culture shapes individuals’ attitudes towards help seeking, and more importantly, it provides a cognitive framework to understand how these attitudes are formed (Chen & Mak,
In addition, current research does not address how strongly each variable influences help seeking intention among Chinese individuals. In response, using a path analysis, this research examines how different barriers, including cultural values, simultaneously affect help seeking intention of Chinese individuals residing in the United States.

Chinese Cultural Conception of Mental Health

An examination of Chinese conception of mental health is important because service utilization is greatly informed and influenced by cultural conception of mental disorder. (Chu & Sue, 2011; Haslam, 2005). More knowledge on this matter would usher a more holistic understanding of Chinese individuals’ underutilization of professional mental health services. Subsequently, a deeper understanding of Chinese cultural conceptions of mental health can assist in creating effective targeted interventions that are culturally responsive to Chinese individuals. Although there are many subethnicities (Manchu, Yi, Miao, etc.) within the larger Chinese population, there appears to be some common core values shared across all Chinese groups (Lam et al., 2010). These values are rooted mainly in philosophical teachings and beliefs of Taoism, Confucianism, and Buddhism (Lam et al., 2010).

According to Taoist beliefs, humans are supposed to live harmoniously with nature and with other fellow humans (Lam et al., 2010). Living harmoniously with Tao includes being genuine, unbounded by social constructs, free from desires, and living simplistically (Ho, 1995; Lee, Lin, Huang, & Fredrickson, 2013). Taoist believe that Qi (loosely translated as energy) is thought of as underlying all aspects of life such as in weather, arts, architecture, and health (Ming, 2014). Mind and body are seen as arising from the same Qi source; therefore, there is overlap between mind and body (Ming, 2014). Illness, both physical and/or mental, is a result of imbalance between yin and yang. Based on this conceptualization of health, Chinese individuals
have a tendency to seek out herbalists and acupuncturists, rather than mental health professionals, as means to restore healthy functioning (Leung et al., 2012). In addition to Taoist, Confucianism is another philosophical belief that influence help seeking behaviors among Chinese individuals.

Confucianism is a system of philosophical and ethical teachings that dictates the pattern of interpersonal relationships and human virtues (Wang, Wong, & Yeh, 2016). These teachings are designed to attain the ultimate goal in Confucianism: harmony within oneself and with others (Ho, 1995; Joshanloo, 2014; Lee et al., 2013). According to Confucianism, development of mental health issues may stem from dysfunctional interpersonal dynamics and failure in maintaining harmonious relationships (Hsiao, Klimidis, Minas, & Tan, 2006). Additionally, Confucianism espouses the idea that people’s destiny is contingent mainly on their moral upright (Lam et al., 2010). Therefore, the development of mental health disorders is seen as part of individuals’ destiny due to their moral failure. Thus, Chinese individuals do not seek mental health professionals because it may indicate their failure in maintaining harmony with others and it may indicate they have morally failed as a person. Seeking mental health professionals, under such a framework, typically generates feelings of shame and embarrassment for the entire family. Feelings of shame is not exclusive to individuals who follows the teaching of Confucianism as Buddhism may similarly instill feelings of embarrassment.

Buddhism promotes and inspires people to seek paths to enlightenment (Lam et al., 2010). Accordingly, enlightenment can be achieved by being nonattached to human phenomena (Sahdra, Shaver, & Brown, 2010) and conducting good acts (Lam et al., 2010). According to the beliefs of Buddhism, people undergo the process of birth and rebirth until one achieves supreme enlightenment. Because Buddhist believe in the concept of birth and rebirth, the presence of
mental disorder is sometimes thought of as punishment for misdeeds from previous lives (Lam et al., 2010). Individuals who suffer from mental health concerns may be stigmatized as having performed treacherous behaviors in past lives. Consequently, Chinese individuals choose to not seek help due to the high stigma being attached to the presence of mental health issues.

A few consistent themes were found within these three philosophical beliefs: etiology of mental health is different from Western conception, mental health concerns are highly stigmatized, and seeking help outside family is strongly discouraged (Lam et al., 2010). These themes reduce the likelihood that Chinese individuals would seek mental health services. Other factors that directly influence help-seeking intention can be examined utilizing the theory of planned behavior.

Theory of Planned Behavior

The theory of planned behavior (TPB; Ajzen, 1991) provides a conceptual framework and rationale in predicting people’s behavior based on their intention. TPB has been previously used to predict help-seeking intention (e.g. Lee, 2016; Mak & Davis, 2014; Mo & Mak, 2009) and seemed suitable for this study as this theory is designed to include the role of culture as part of the theory (Lee, 2016). Before proceeding further, it is imperative to delineate between help-seeking intention and help-seeking behavior. Although intention may be related to, and predicts behavior, these two concepts are not synonymous (Ajzen, 1991; Nagai, 2015). Help-seeking behavior is defined as a behavior to fulfill a perceived need for assistance in a positive manner (Barker, 2007). Help-seeking intention, on the other hand, is defined as the probability or likelihood of seeking help (Rickwood, Thomas, & Bradford, 2012). Because help-seeking behavior was assumed to be strongly predicted by help-seeking intention, most researchers
utilized help-seeking intention as an indication of help-seeking behavior (e.g. Mak & Davis, 2014; Mo & Mak, 2009; Nagai, 2015; Tieu & Konnert, 2014; Yu et al., 2015).

Ajzen (1991) postulated that people’s behavior is influenced by their intention, perceived behavioral control, attitude, and subjective norms (Figure 1). Accordingly, the main factor in predicting people’s behavior is their intention to conduct said behavior. Ajzen postulated that intentions are indicators of individuals’ level of motivation to perform a specific behavior. Generally, stronger intention should result in greater likelihood of engaging in behavior (Ajzen, 1991). Apart from intention, perceived behavioral control also influence behavior. Perceived behavioral control is defined as people’s perception of how easy or difficult it would be to conduct the behavior of interest (Ajzen, 1991).

As can be seen in Figure 1, there are three variables which influences intention: attitude, subjective norm, and perceived behavioral control. Ajzen (1991) defined attitude toward behavior as people’s evaluation of the behavior, resulting in either favorable or unfavorable appraisal. Generally, the more favorable attitude towards a behavior, the greater the intention
would be (Ajzen, 1991). Subjective norm on the other hand is defined as an individuals’ perception of social pressure to perform the behavior (Ajzen, 1991). Generally, higher levels of subjective norms would result in higher levels of intention (Ajzen, 1991).

The applicability of TPB on psychological help-seeking using Chinese samples was investigated by Mo and Mak (2009) and Mak and Davis (2014). Mo and Mak tested the applicability of TPB on Chinese population in Hong Kong. Adding a cultural dimension to the applicability of TPB, Mo and Mak (2009) reasoned that Chinese culture characterized relationship based on hierarchy and harmony. Respect and conformity to authority figures are especially valued within the Chinese society and it stands to reason that these values would shape individuals’ attitudes and perceived behavioral control on certain behaviors (Mo & Mak, 2009). Thus, Mo and Mak hypothesized that subjective norm has a strong influence on Chinese individuals’ help-seeking process. Specifically, they theorized that subjective norm not only has a direct effect on help-seeking intention, but also an indirect effect, by predicting both perceived behavioral control and attitude. Mo and Mak termed this model a partial mediation model as subjective norm is partially mediated by perceived behavioral control and help-seeking attitude (Figure 2).

![Partial mediation model](image)

*Figure 2. Partial mediation model (Mo & Mak, 2009).*
Mo and Mak (2009) found that the partial mediation model yielded a statistically significant better fit for their samples when compared to Ajzen’s (1991) original model. The partial mediation model explained 57% of the variance of help-seeking intention (Mo & Mak, 2009). When this study was replicated with Chinese individuals in Macao, Mak and Davis (2014) found that the partial mediation model explained 58.5% of variance in help-seeking intention. Results from these studies indicated that TPB can be generalized to Chinese population, and that the partial mediation model may be more culturally fitting when examining psychological help-seeking for Chinese individuals.

One possible limitation in both Mo and Mak’s (2009) and Mak and Davis’ (2014) studies lies in their measurement of variables in TPB. Although they created the measurements according to Ajzen’s (1991) recommendation, the items may not be psychometrically sound. Ajzen reported that items created to measure TPB variables usually only correlate moderately with global measurements. This finding suggest that items created to measure TPB variables may at times fail to completely assess important aspects of participants’ beliefs.

Another possible limitation is the exclusion of variables that have been found significant in predicting help-seeking intentions, specifically self-stigma (Komiya, Good, & Sherrod, 2000; Young & Ng, 2016) and mental health literacy (Loo, Tong, & True, 1989; Tabora & Flackerud, 1997). Young and Ng (2016) found that Chinese participants in Hong Kong and Guangzhou reported experiencing self-stigma, especially feelings of shame, relating to their mental illness and mental health use. Many Chinese individuals find seeking professional mental health stigmatizing because of the belief that sharing problems outside of the familial support system denotes weakness in character, immaturity, and deficiency in self-discipline (Chang & Chang, 2004; Kung, 2004).
Mental health literacy is regarded as one of the important variables in promoting early recognition of mental health issues, reducing stigma, and enhancing help-seeking behaviors (Wei, McGrath, Hayden, & Kutcher, 2015). Research findings show that greater knowledge of mental health led to greater awareness regarding ways to seek treatment as well as lower stigma associated with seeking help for mental health, thereby increasing the utilization of mental health services (Corrigan & Watson, 2003; Henderson, Evans-Lacko, & Thornicroft, 2013; Rüsch, Evans-Lacko, Henderson, Flach, & Thornicroft, 2011). Loo and colleagues (1989) found that lack of awareness and knowledge of mental health services was the biggest factor of underutilization among their participants. Some other factors include the belief that mental health issues cannot be prevented and low priority in seeking mental health relief (Loo et al., 1989).

Purpose of the Study

The purpose of this study was to examine how different barriers simultaneously affect help seeking intention of Chinese individuals residing in the United States. The research question of this study is “What are some variables that significantly predict Chinese individuals’ help-seeking intention?” Utilizing the theory of planned behavior, constructing a path model illuminated the interplay between the different help-seeking barriers and their effects on help-seeking intention. This information can provide a firm foundation for counselors and counselor educators to better understand the needs and help-seeking process of Chinese individuals (Quach & Hall, 2013). With better knowledge, mental health counselors can design effective targeted outreach interventions to increase Chinese individuals’ mental health service utilization.

In this study, I utilized the partial mediation model as my hypothesized model, along with the additional variable of self-stigma and mental health literacy (Figure 3). Help-seeking attitude, perceived behavioral control, self-stigma, and mental health literacy were hypothesized to have a
direct effect on help-seeking intention. Subjective norm was hypothesized to have a direct and indirect effect to help-seeking intention. The indirect effect of subjective norm and help-seeking intention will be mediated by help-seeking attitude and perceived behavioral control.

![The hypothesized path model](image_url)

**Figure 3.** The hypothesized path model.

**Methods**

**Participants**

Two hundred fifty-one Chinese individuals participated in this study. Participants’ age ranged from 18 to 61 years old, with a mean of 32.56 ($SD = 9.61$). With regard to gender, there were 98 males (39%), 150 females (59.8%), and three participants (1.2%) whom did not indicate their gender. In looking at country of birth, most participants indicated China as their country of origin with 98 participants (39%), followed by Malaysia with 71 participants (28.29%), and the rest of participants identifying other countries. Most of the participants in this study indicated that they are first generation immigrants, with 155 participants (61.8%) indicating as such. Although participants were recruited nationwide, the majority reported living in Texas (66.9%). Most participants reported not having seen a mental health professional (70.5%). When inquired if they had sought any informal help, 31.1% indicated that they did not seek help, 24.3%
indicated seeking friends for help, and 13.5% responded turning to family members. For participants who indicated having seen a mental health professional (27.5%), counselor (13.1%) was the category most frequently indicated, followed by school counselor (8.0%), and psychologist (4.8%).

Procedure

After receiving permission from the Institutional Review Board (IRB) for Human Subjects, participants were recruited nationally via purposive, snowball, and convenience sampling. Recruitment was mostly conducted in three states with the most Chinese population: New York, California, and Texas (U.S. Census Bureau, 2010). I conducted an online search for Chinese community centers, Chinese organizations, churches, and Chinese schools. Emails were sent to leaders of community organizations that primarily serve Asian populations to explain the purpose of this study and request permission to recruit participants. If community leaders were agreeable to this research, I sent a second email to community leaders to be sent out to their members. The second email contained a link to Qualtrics for participants to participate in the study. The Qualtrics survey consisted of informed consent, demographic questionnaire, and the six measurements for this study. Additionally, Chinese individuals were recruited through personal connection. Recruited participants were asked to recruit from their friends or family, thus conducting snowball sampling. As incentive, participants were given an opportunity to be entered into a raffles draw to win an iPad Air 2 by providing their email address after completing the survey.

Measures

Help-Seeking Intention

Help-seeking intention was operationally defined using the Intentions to Seek Counseling
Inventory (ISCI: Cash, Begley, McCown, & Weise, 1975). The ISCI is a 17-item measurement designed to assess participants’ intention to seek counseling for various mental health issues. Items are scored on a 4-point Likert scale (1 = very unlikely, to 4 = very likely). Items are summed to produce a total score, where higher score denotes stronger help-seeking intentions. Alpha coefficient was reported to be between .89 and .93 by previous researchers (Cepeda-Benito & Short, 1998; Lee, 2016). In this study, internal consistency was found to be excellent with alpha coefficient of .92.

Help-Seeking Attitude

Help-seeking attitude was operationally defined using the Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSSPPH-SF; Fisher & Farina, 1995). The ATSSPPH-SF is a 10-item questionnaire designed to measure participants’ attitudes towards counseling. Items are scored on a 4-point Likert scale (0 = disagree, to 3 = agree). Responses are summed to produce a total score, where higher score indicates more positive attitudes towards seeking professional mental health counseling. When used with Chinese samples, the alpha coefficient was reported to range between .72 - .75 (Chang, 2008; Chang, 2014). The alpha coefficient for this study was .69.

Subjective Norm

Subjective norm was operationally defined using the Loss of Face scale (LOF; Zane & Yeh, 2002). The LOF is a unidimensional questionnaire consisting of 21-items designed to measure participants’ apprehension in losing one’s social uprightness within the Asian ethnic community. Participants’ responses are summed to produce a total LOF score, where higher scores signify greater levels of concerns with face loss in social situation (Zane & Yeh, 2002).
Alpha coefficient has been found to be .83 (Zane & Yeh). In this study, the alpha coefficient was .88.

Perceived Behavioral Control

Perceived behavioral control was operationally defined by the Help-Seeking Propensity subscale of IASMHS (Mackenzie, Knox, Gekoski, & MacCaulay, 2004). The help-seeking propensity subscale consist of eight items rated on a 5-point Likert scale (0 = disagree to 4 = agree). Participants’ responses are summed to yield a total score, where higher score indicates higher perceived behavioral control (Mackenzie et al., 2004). Alpha coefficient was reported to be .76 (Mackenzie et al.). Alpha coefficient for this study was found to be .82.

Self-Stigma

Self-stigma was operationally defined by the Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006). The SSOSH is 10-item questionnaire designed to measure participants’ feelings of internalized stigmatization associated with seeking mental health services. Items are rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The SSOSH has been found to be unidimensional in nature based on results from previous confirmatory factor analysis. Reverse scoring are done for Items 2, 4, 5, 7, and 9. Participants’ responses are summed to yield a total score, where higher score indicates higher levels of self-stigma. Vogel and colleague (2006) reported alpha coefficient for this scale to range from .86 - .91. Alpha coefficient for this study was .82.

Mental Health Literacy

Mental health literacy was operationally defined using the Mental Health Knowledge Questionnaire (MHKQ; Wang et al., 2013). The MHKQ is a 20-item instrument designed to measure individuals’ general knowledge of mental health issues (Wang et al., 2013). Participants
are required to respond to a series of items with yes/no response. A point is provided for each correct response and the maximum score is 20. Participants’ score is summed to yield a total score, where higher scores indicate higher mental health literacy (Wang et al., 2013). Wang and colleagues (2013) reported alpha coefficient to range from .69 - .73. In this study, alpha coefficient of the whole scale was found to be low with alpha coefficient of .53.

Results and Findings

Preliminary Analyses and Data Screening

Data set was screened and the results showed that the assumption of multivariate normality and homoscedasticity were met. The correlation matrix of the variables involved in this study is shown in Table 1. Results indicated that help-seeking intention (ISCI) was significantly correlated with help-seeking attitude (ATSPPH-SF) and perceived behavioral control (help-seeking propensity). Subjective norm, (LOF), self-stigma (SSOSH), and mental health knowledge (MHKQ) were not statistically significantly correlated with help-seeking intention (ISCI).

Table 1

Correlation Matrix of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>ISCI</th>
<th>LOF</th>
<th>ATSPPH-SF</th>
<th>Propensity</th>
<th>SSOSH</th>
<th>MHKQ</th>
</tr>
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<tbody>
<tr>
<td>ISCI</td>
<td>-</td>
<td>.082</td>
<td>.352***</td>
<td>.354***</td>
<td>-011</td>
<td>-021</td>
</tr>
<tr>
<td>LOF</td>
<td></td>
<td>-</td>
<td>.024</td>
<td>.50</td>
<td>.244**</td>
<td>.009</td>
</tr>
<tr>
<td>ATSPPH-SF</td>
<td></td>
<td></td>
<td>-</td>
<td>.593***</td>
<td>-.421***</td>
<td>.283**</td>
</tr>
<tr>
<td>Propensity</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-.269***</td>
<td>.185**</td>
</tr>
<tr>
<td>SSOSH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-.323***</td>
</tr>
<tr>
<td>MHKQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
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**p < .01   ***p < .001
Validating the Path Model

I evaluated the hypothesized path model using SPSS Analysis of a Moment Structures (AMOS). I used the following criteria for evaluation of model fit: (a) a chi-square value that is non statistically significant at $p < .05$ level, (b) a Root Mean Square Error of Approximation (RMSEA) value of less than $.08$, (c) an Standardized Root Mean Square Residual (SRMR) value of less than $.08$, and (d) a Confirmatory Factor Analysis (CFI) value of equal of greater than $.95$. The criteria were suggested by previous researchers on the assessment of path model fit (Bentler & Bonnett, 1980; Hu & Bentler, 1999; Kline, 2011; Weston & Gore, 2006). I tested the hypothesized path model by conducting a path analysis. Path analysis conducted using AMOS yielded extremely poor model fit with $\chi^2 (8) = 220.53$, $p < .001$, RMSEA = .318, SRMR = .208, CFI = .187. Results indicated that help-seeking attitude had a statistically significant effect on help-seeking intention, $r = .30$, $p < .001$. Help-seeking propensity was also found to predict help-seeking intention with $r = .23$, $p < .001$. Lastly, self-stigma was found to predict help-seeking intention with $r = .14$, $p = .017$. The total variance accounted for help-seeking intention was 18%. Result of the path model is depicted in figure 4.

![Path Model Diagram](image)

*Figure 4. Result of path model with respective standardized regression coefficient. * $p < .05$  ** $p < .01$
Kline (2011) stated that one of the main reasons for poor model fit is due to model misspecification. Thus, a few post-hoc analysis were conducted to determine if such misspecification affected the model fit. The first modification was the removal of the two additional variables, self-stigma and mental health knowledge. With the removal of these two variables, the model was similar to the partial mediation model used by Mo and Mak (2009) and Mak and Davis (2014). Results again indicated poor model fit with $\chi^2 (1) = 107.96, p < .001$, RMSEA $= .654$, SRMR $= .195$, CFI $= .27$. Similar to the full hypothesized model, help-seeking attitude significantly predicted help-seeking intention with $r = .23, p < .001$. Help-seeking propensity also significantly predicted help-seeking intention with $r = .23, p < .001$.

The poor model fit indicated that the partial mediation model does not explain the data well. Therefore, another post-hoc analysis was conducted to examine Ajzen’s (1991) original model. The model fit indices was poor, with $\chi^2 (3) = 108.73, p < .001$, RMSEA $= .375$, SRMR $= .197$, CFI $= .28$. The modification indices suggested that help-seeking attitude and help-seeking propensity be covaried with each other. As the help-seeking propensity subscale was derived from the ATSPPH, this recommendation made sense. The final model fit with the addition of covariance was excellent with $\chi^2 (2) = .624, p = .734$, RMSEA $= .00$, SRMR $= .018$, CFI $= 1.00$ (Figure 5). Help-seeking attitude significantly predicted help-seeking intention with $r = .22, p < .001$. Help-seeking propensity also significantly predicted help-seeking intention with $r = .22, p < .001$. Help-seeking attitude and perceived behavioral control explained 16% of the variance in help-seeking intention.
Discussion

Results revealed that neither the hypothesized path model nor the partial mediation model produced good model fit. Misspecification could have contributed to the poor model fit (Kline, 2011). In the hypothesized model, perhaps mental health knowledge and self-stigma have an indirect, rather than a direct, relationship on help-seeking intention. Previous research has found that higher levels of mental health knowledge leads to lower stigma associated with seeking psychological help (Corrigan & Watson, 2003; Henderson, et al., 2013; Rüsch et al., 2011). Therefore, it can be postulated that mental health knowledge could augment individuals’ attitude towards help-seeking by lowering their stigma of help seeking. It could be that the relationship between mental health knowledge and help-seeking intention is mediated by help-seeking attitude. Similarly, self-stigma may have an indirect relationship to help-seeking intention. Komiya and colleague (2000) found that help-seeking attitude mediate the relationship between self-stigma and help-seeking intention. The higher the levels of mental health stigma, the worse one’s attitude is towards seeking help, resulting in lower help-seeking intention.
This study did not find good model fit for the partial mediation model, contrary to the findings of previous research with Chinese samples (Mak & Davis, 2014; Mo & Mak, 2009). Misspecification may be also contributed to the poor model fit for the partial mediated model. Both of the aforementioned research were conducted in Hong Kong (Mo & Mak, 2009) and Macao (Mak & Davis, 2014) respectively. Due to the strong collectivistic culture of Chinese community, subjective norms was found to have strong effects on attitude and perceived behavioral control. However, for Chinese individuals residing in the United States, it appears that attitude and perceived behavioral control do not mediate the relationship between subjective norm and help-seeking intention. Perhaps Chinese individuals residing in the United States, having learned ways to be more individualistic, are less constrained by subjective norm when seeking psychological help. Admittedly, this research is probably the first to examine the partial mediation model with Chinese individuals residing in the United States. More research would be needed to confirm the finding of this study.

Encouragingly, Ajzen’s original model produced excellent model fit, providing support that the theory of planned behavior can be used to predict Chinese individuals’ help-seeking intention. Although Ajzen’s original theory was found to have excellent fit, the three predictors only explained 16% of help-seeking intention, which is much lower than the findings from previous researchers (e.g. Mak & Davis, 2014; Mo & Mak, 2009, Smith et al., 2008). When examining the regression coefficient, only help-seeking attitude ($r = .22, p < .001$) and perceived behavioral control ($r = .22, p < .001$) contributed to explaining the variance of help-seeking intention. Subjective norm, measured by the Loss of Face scale, contributed almost nothing ($r = .07, p > .05$) to the variance of help-seeking intention. A possible reason for this finding could be due to the assessment used to measure subjective norm: the Loss of Face Scale (Zane & Yeh,
When factor analyzed, Zane and Yeh (2002) found that the 21 items on the scale yielded one factor that explained only 26% of the variance. This result indicated that the items on the scale may be inadequate at capturing the latent concept of loss of face. Thus, the latent construct of loss of face may be poorly measured and consequently failed to provide reliable prediction on help-seeking intention.

The low variance explained for help-seeking intention could also be due to the minimal suitability of the measurement used for help-seeking intention. Initially developed to measure college students’ help-seeking intention, the Intentions to Seek Counseling Inventory (Cash et al., 1975) has been found to possess three factors, one of them being academic problems (Cepeda-Benito & Short, 1998). This measurement may not be ideal for this current sample as a majority of participants (57.8%) indicated they were not currently studying. As such, participants may find little relevance in seeking help related to the academic problem subscale, therefore deflating the total scores, resulting in less than accurate reflection of participants’ help-seeking intentions.

Limitations and Future Studies

In this study, there seemed to be limitations with the hypothesized model due to misspecification. It appeared that mental health literacy and self-stigma has an indirect relationship, rather than direct relationship, with help-seeking intention. Previous research has found that help-seeking attitude mediate the relationship between the aforementioned variables (Komiya et al., 2000). In the future, researchers can try utilizing help-seeking attitude as a mediator variable, mediating the relationship between self-stigma and help-seeking intention, as well as between mental health literacy and help-seeking intention.
Another limitation of this study was the use of the Loss of Face scale as measurement for subjective norm. As shown by the results, it appeared that the Loss of Face scale was unsuitable to serve as a measurement for subjective norm. Future researchers should deliberate carefully on best measurements to measure subjective norm. One possible recommendation would be to utilize the Perception of Stigmatization by Others for Seeking Psychological Help Scale (Vogel et al., 2009) as this inventory measures individuals’ pressure to not seek mental health services.

Next, data were collected on the basis of participants’ self-report. Although the instruments chosen for this study has decent psychometric properties, participants’ may choose to respond in a favorable manner. Additionally, there were no validity checks embedded within the questionnaire, making it difficult to determine if participants were paying attention when completing the survey. Thus, the collected data may not accurately reflect participants’ help-seeking intention. To improve this limitation, future researchers may decide to embed a few validity checks to ascertain that participants were focused and concentrated on the questions when completing their survey.

Although not necessarily a limitation, the utilization of Intentions to Seek Counseling Inventory (Cash et al., 1975) may be less appropriate for individuals who are not currently students in a college or university setting. The ISCI consist of the Academic Concern subscale, which may be inapplicable for individuals out of college/university. Future researchers can consider using only one of the subscales, the Psychological and Interpersonal Concerns subscale, as measurement for participants’ willingness to seek help. This practice of using only one subscale is not unusual and has been conducted before by previous researchers (e.g. Shaffer et al., 2006; Vogel et al., 2007; Yakunina, 2012).
Implications of Study

Results of this study demonstrated that help-seeking attitude and perceived behavioral control has significant predictive values on influencing Chinese individuals’ help-seeking intention. Therefore, it can be argued that improving Chinese individuals’ help-seeking attitude and their perceived behavioral control would increase their help-seeking intention. Some attitudinal barriers that were previously identified include resolving problems on one’s own, belief that the problem would resolve itself, fear of social stigma, and skepticism of the helpfulness of mental health professionals (Blocher, 2011). Addressing such attitudinal issues via psychoeducation and outreach programs were found successful in increasing participants’ attitude towards seeking mental health professional (e.g. Blocher, 2011; Taylor-Rodgers & Batterham, 2014).

To achieve maximum effectiveness and be culturally responsive, mental health professionals need to design the psychoeducation or outreach programs to align with Chinese conception of mental health. For example, based on Confucianism, mental health professionals can share with participants that counseling can be helpful in maintaining harmony within oneself and with others by understanding their own patterns of behaviors in life, as well as their strengths and weaknesses. Having a clearer understanding of self and others could be helpful in maintaining a healthy and positive relationship with others. Conversely, Buddhist clients may have a strong stigma associated with the presence of mental disorders. Therefore, mental health professionals may want to emphasize their beliefs about the etiology of mental disorders and to decrease the stigma attached to mental disorders and help-seeking. Similarly, since Chinese individuals are more likely to seek help from herbalists and acupuncturists as means to restore
healthy functioning (Leung et al., 2012), mental health professionals can collaborate with these professionals in the community to minimize stigma associated with psychological help.

Perceived behavioral control was also found to be a significant predictor for help-seeking intention. Looking at the help-seeking propensity measurement, some of the beliefs associated with perceived behavioral control include relative ease at finding professional help when needed and willingness to confide in a mental health professional. To increase Chinese individuals’ perceived behavioral control, mental health professionals can increase their advertisement to increase the awareness of availability of mental health resources. Additionally, outreach programs designed to increase acceptance of seeking help can be helpful. This is congruent with Mak and Davis’ (2014) findings that support from significant others strongly affect Chinese individuals’ perceived behavioral control when deciding to seek professional help. Therefore, educating Chinese individuals about the etiology of mental health and process of mental health services may be helpful in increasing their help-seeking propensity.

Additionally, it may be helpful if mental health professionals build strong working relationship with community leaders or religious leaders in their area. Chinese individuals may be more receptive to seeking mental health services if community and religious leaders provide encouragement for such behavior. Offering short term counseling at these sites may also increase participants’ perceived behavioral control as it may be easier to approach mental health professionals who make themselves available at these centers.

Conclusion

Chinese individuals, and the Asian population in general, has been found to underutilize mental health services (Abe-Kim et al., 2007; Kearney, et al., 2005; U.S. Department of Health and Human Services, 2014). Although previous research focused on factors that deters Chinese
from seeking help (e.g. Chang, 2008; Chang, 2014; Chang & Chang, 2004; Kung, 2004), this study is the first to consider these different factors simultaneously within a path model to provide a holistic picture of the help-seeking process. The incorporation of the theory of planned behavior (Ajzen, 1991) provided a firm basis for linking help-seeking intention and help-seeking behavior.

In comparison to other studies (e.g. Mak & Davis, 2014; Mo & Mak, 2009) that utilized self-created measurements, this study used established measurements in the literature; thus, it can be argued that the results of this study is a closer approximation to Chinese individuals’ help-seeking process despite the low variance accounted for in help-seeking intention. Results revealed that Chinese individuals’ intention to seek counseling is influenced by their attitude ($r = .22, p < .001$) and perceived behavioral control ($r = .22, p < .001$). Based on the results, intervention and outreach programs to increase Chinese individuals’ attitude and perceived behavioral control should be devised in an attempt to increase the help-seeking intention and behaviors of the Chinese community. Additionally, it is recommended for these outreach programs to be designed to be culturally responsive to Chinese cultural values. With an increase in such programs, it is hoped that the Chinese community will be more open and willing to seek psychological help, thus decreasing the underutilization of mental health services and improving their overall mental health status.

References


APPENDIX A

EXTENDED LITERATURE REVIEW
Examining Help-Seeking Intentions of Chinese Individuals: A Path Analysis

Underutilization of mental health services is a major global health concern (Yu et al., 2015). Even though the rates of underutilization of mental health services differ across countries, the statistics are not encouraging. The rate of underutilization of mental health services for individuals suffering from mental disorder in certain countries are as follows: Australia – 60% (Andrews, Henderson, & Hall, 2001), Europe – 74% (Alonso et al., 2007), and China – 90% (Qian, 2012). In the United States, this rate has been found to be approximately 61% (Kessler et al., 2005; Substance Abuse and Mental Health Services Administration, 2011). Because mental disorders fall under the larger umbrella of mental health concerns, it can be argued that the underutilization of mental health services is higher when considering people who struggle with mental health issues but do not yet warrant a mental health diagnosis.

Among the different races in the United States, the Asian population has been found to be especially vulnerable to the underutilization of mental health services (Abe-Kim et al., 2007; Kearney, Draper, & Baron, 2005; U.S. Department of Health and Human Services, 2014). This is concerning because the Asian population is the fastest growing group among all the major races in the United States (Pew Research Center, 2013; U.S. Census Bureau, 2012). It is projected that Asian Americans may make up almost 10% of the population in the United States by the year 2050 (U.S. Census Bureau, 2012). Among Asians subgroups, Chinese individuals comprise the largest Asian group that resides in the United States, accounting for more than 3 million individuals (U.S. Census Bureau, 2012).

Although data regarding Chinese individuals’ mental health status is unclear due to underreporting (Leung, Cheung, & Tsui, 2012), records from the Chinese American Psychiatric Epidemiology Study (CAPES) suggested that only six percent of Chinese individuals who
reported having mental health issues sought services from mental health professionals (Spencer & Chen, 2004). The underutilization of mental health services is not limited to Chinese living in the United States as this pattern of underutilization has been reported in Taiwan (Chou, 2006), China, (Qian, 2012), and Canada (Tieu & Konnert, 2014; Tiwari & Wang, 2008).

Under treatment of mental health concerns has adverse negative consequences for people’s well-being as it is strongly associated with poor life outcomes such as lower vocational achievements and challenging interpersonal and family dynamics (Bhatia & Bhatia, 2007). Furthermore, people with mental health issues tend to have shorter life span as compared to people who are mentally healthy due to high correlations between mental health problems and physical well-being such as increased case of heart disease, respiratory condition, stroke, diabetes, and suicide (Kessler, Foster, Saunders, & Stang, 1995; Mezuk, Eaton, Albrecht, & Golden, 2008; Rugulies, 2002). Although the aforementioned findings were primarily conducted using a Western sample, more recent research suggests that psychological distress or poor mental health are strongly associated with poor physical health for Chinese individuals as well (Li, Chan, Chung, & Chui, 2010; Mereish, Liu, & Helms, 2012). Thus, researching the underutilization of mental health services among Chinese population is crucial due to the potential detrimental effects it has on quality of life.

Research on underutilization of mental health services generally falls into three categories (Kung, 2004). The first category is comprised of studies that compared pattern of service utilization among Asian Americans or between Asian Americans and other races using archival data, such as those from the Department of Mental Health (e.g. Matsuoka, Breaux, & Ryujin, 1997; Sue, Fujino, Hu, Takeuchi, & Zane, 1991; Ying & Hu, 1994). Such studies provide information regarding the relationship between the utilization of mental health to
objective variables, such as presence of mental disorder, socio-demographic characteristics, and referral sources. However, these studies do not provide information about participants’ self-perceived barriers to accessing mental health services (Kung, 2004).

The second category consists of studies that examined Asian college students’ likelihood of seeking mental health services based on their values, level of acculturation, attitudes, and socio-demographic characteristics (e.g. Atkinson & Gim, 1989; Leong, Wagner, & Kim, 1995; Mau & Jepson, 1990; Tata & Leong, 1994). These studies illuminated the relationship between latent factors and the underutilization of mental health services. However, because these studies only measured help-seeking intention, these studies do not examine actual help-seeking behavior (Kung, 2004). Rather, there is an assumption that participants would seek help based on their help seeking intention. Additionally, the generalizability of such studies are limited due to their sampling of college students (Kung, 2004).

Finally, the third category included studies that explored Asian American participants’ perceived barriers or attitudes to seeking mental health professionals (Loo, Tong, & True, 1989; Tabora & Flasketrud, 1996; Takeuchi, Leaf, & Kuo, 1988; Ying & Miller, 1992). These research studies used community samples and their findings revealed a consistent underutilization of mental health services. The benefit of utilizing community samples is the examination of Asian Americans’ perceptual barriers to not seek mental health services. The drawback of such studies, however, is the weak link between perceptual barriers and actual help seeking behavior as intentions may not necessarily translate to help seeking behavior (Kung, 2004).

Summarizing the literature review so far, Chinese individuals have been found to underutilize mental health resources (Chou, 2006; Qian, 2012; Spencer & Chen, 2004; Tieu & Konnert, 2014; Tiwari & Wang, 2008) which may lead to poor mental health. Poor mental health
has been associated with many negative life consequences such as poor interpersonal dynamics (Bhatia & Bhatia, 2007) and poor physical health (Li et al., 2010; Mereish et al., 2012). In an attempt to understand this pattern of underutilization, most researchers sought to illuminate the barriers that prevents the use of mental health services (Atkinson & Gim, 1989; Leong et al., 1995; Loo et al., 1989; Matsuoka et al., 1997; Mau & Jepson, 1990; Sue et al., 1991; Tabora & Flaskerud, 1996; Tata & Leong, 1994; Ying & Hu, 1994).

Statement of the Problem

Although various barriers to help seeking behaviors among Asian populations have been identified (e.g. help-seeking attitude, stigma, mental health literacy etc.), there is paucity in the literature regarding the relationship between these barriers and help-seeking intention, especially for Chinese in the United States. Additionally, as stated by Kung (2004), the current literature in the field lacks research that links help-seeking intention and help-seeking behavior.

Purpose of Study

The purpose of this study was to examine how different barriers simultaneously affect help seeking intention of Chinese individuals in the United States. Constructing a path model illuminated the interplay between the different help-seeking barriers and their effects on help-seeking intention. Results from the path analysis could provide some insights on how strong each factor can simultaneously predict and affect help-seeking intention.

Significance of Study

A path model provided a coherent, holistic, and simple way to understand the variables that influence Chinese individuals’ decision to not seek services from mental health professionals. This information can provide a firm foundation for counselors and counselor educators to better understand the needs and help-seeking process of Chinese individuals (Quach
& Hall, 2013). With better knowledge, more targeted intervention can be devised. For example, if mental health literacy was found to be the greatest predictor of help-seeking intention, then interventions can be designed to increase the level of mental health literacy among Chinese individuals.

Equally important is the theoretical foundation to connect help-seeking intention and help-seeking behavior. Theory-based research examining the link between intention and behavior in seeking mental health professionals is scarce (Mak & Davis, 2014). The incorporation of the theory of planned behavior (TPB; Ajzen, 1991) provided a conceptual framework and rationale in predicting people’s behavior based on their intention.

Literature Review

Chinese American is the largest Asian subgroup in the United States accounting for almost 3 million individuals (U.S. Census Bureau, 2012). Research shows that Chinese individuals severely underutilize mental health services due to low help-seeking intention and behavior (Spencer & Chen, 2004; Ying & Miller, 1992). In this chapter, I will first explore the concept of help-seeking by delineating help-seeking intention and behavior. Subsequently, I will examine Chinese cultural conception of mental health as a cultural consideration has been deemed vital in influencing individuals’ decision to seek mental health professionals (Chu and Sue, 2011). Next, the theory of planned behavior (Ajzen, 1991) will be presented as a model to guide the discussion on mental health utilization. The theory of planned behavior is also used to provide the link between help-seeking intention and help-seeking behavior. Lastly, several important barriers to seeking mental health professionals will be explored utilizing the framework of the theory of planned behavior.
Help-Seeking

The concept of help-seeking is complex and difficult to define with no agreed upon definition (Rickwood & Thomas, 2012). One of the factors which obscures the clarity of this concept is the delineation, or lack thereof, between help-seeking intention and help-seeking behavior. In a systematic review of help-seeking articles ranging from 1971 to 2012, Rickwood and Thomas (2012) found that almost half (46%) of the studies on help-seeking provided no clear definition of this concept. Although intention may be related to, and predicts behavior, these two concepts are not synonymous (Ajzen, 1991; Nagai, 2015). Readers are first provided with the definition of help-seeking behavior, followed by the definition of help-seeking intention, which is the focus of this study.

Some definitions for help-seeking behavior that had been previously used included: a) active search for relevant means to resolve a problem (Zartaloudi & Madianos, 2010), b) behavior that involve a plea for assistance from either formal or informal supports for the aim of resolving or alleviating behavioral, emotional, or health issues (Unrau & Grinnell Jr., 2005), and c) the decision to find some type of professional help (Neighbors, 1985). One of the most comprehensive definition of help-seeking behavior was proposed by Barker (2007) and published by the World Health Organization where he defined help-seeking behavior for adolescent as:

Any action or activity carried out by an adolescent who perceives herself/himself as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking help from formal services – for example, clinic services, counsellors, psychologists, medical staff, traditional healers, religious leaders or youth programmes – as well as informal sources, which
includes peer group and friends, family members or kinship groups and/or other adults in
the community. The “help” provided might consist of a service (e.g. a medical consultation,
clinical care, medical treatment or a counselling session), a referral for a service provided
elsewhere or for follow-up care or talking to another person informally about the need in
question. We emphasize addressing the need in a positive way to distinguish help-seeking
behavior from behaviors such as association with anti-social peers, or substance use in a
group setting, which a young person might define as help-seeking or coping, but which
would not be considered positive from a health and well-being perspective. (p. 2)
The definition provided by Barker involves a perceived need for assistance which results in a
behavior to fulfill the need in a positive manner whether through formal or informal means.
When addressing mental health, one means of formal help is to seek out mental health
professionals.

Help-seeking intention, on the other hand, is defined as the probability or likelihood of
seeking help (Rickwood, Thomas, & Bradford, 2012). Because help-seeking behavior was
assumed to be strongly predicted by help-seeking intention, most researchers utilized help-
seeking intention as an indication of help-seeking behavior (e.g. Mak & Davis, 2014; Mo &
Mak, 2009; Nagai, 2015; Tieu & Konnert, 2014; Yu et al., 2015). A few clarifying points are
crucial in understanding such research. Nagai (2015) reasoned that help-seeking behavior cannot
be measured in studies utilizing cross-sectional design. In cross-sectional designed studies,
researchers are measuring either help-seeking intention (Mak & Davis, 2014; Mo & Mak, 2009;
Tieu & Konnert, 2014; Yu et al., 2015) or past behavior (Offer, Howard, Schonert, & Ostrov,
1991; Saunders, Resnick, Hoberman, & Blum, 1994; Tieu & Konnert, 2014). Thus, a causal link
between factors influencing help-seeking intention and help-seeking behavior cannot be establish
with cross-sectional research design (Nagai, 2015). Nagai (2015) recommended future research to begin delineating help-seeking intention and help-seeking behavior to provide some clarity to readers.

Apart from being plagued by vague definitions, research on help-seeking intention and behavior often lacks cultural understanding (Eiraldi, Mazzuca, Clarke, & Power, 2006; Guo, Nguyen, Weiss, Ngo, & Lau, 2015). Cultural values were deemed to influence individuals’ decision to utilize mental health services (Chu & Sue, 2011). Culture shapes individuals’ attitudes towards help seeking, and more importantly, it provides a cognitive framework to understand how these attitudes are formed (Chen & Mak, 2008). The next section will be devoted to exploring the etiology of mental health within the Chinese cultural framework to provide readers some cultural context to Chinese individuals’ reluctance in utilizing mental health services.

Chinese Cultural Conception of Mental Health

Many researchers had examined the reasons for Chinese individuals’ underutilization of mental health services such as stigma (Augsberger, Yeung, Dougher, & Hahm, 2015; Fang & Wark, 1998; Lee 1997), low mental health literacy (Wong, Lam, & Poon, 2010), and low help-seeking attitude (Chang, 2008; Chang, 2014). However, less attention is given to how culture affects the formation of stigma or help-seeking attitude. This lack of knowledge is particularly interesting given the strong influence of culture on the etiology of mental health (Fabrega, 1982; White & Marsella, 1982).

An examination of Chinese conception of mental health is important for three reasons. Firstly, the American Counseling Association emphasized the importance of embracing and honoring clients’ cultural context in the ACA’s Code of Ethics Preamble (2014). Deeper
knowledge on cultural conception of mental health is consistent with ACA’s code of ethics emphasis on honoring and understanding clients’ cultural world. Secondly, service utilization is greatly informed and influenced by cultural conception of mental illness. (Chu & Sue, 2011; Haslam, 2005). More knowledge in this matter would usher a more holistic understanding of Chinese individuals’ underutilization of professional mental health services. Lastly, a deeper understanding of Chinese cultural conceptions of mental health can assist in creating effective targeted interventions that are culturally responsive to Chinese individuals.

Although there are many subethnicities (Manchu, Yi, Miao, etc.) within the larger Chinese population, there appears to be some common core values shared across all Chinese groups (Lam et al., 2010). These values are rooted mainly in philosophical teachings and beliefs of Taoism, Confucianism, and Buddhism (Lam et al., 2010). According to Tseng, Lin, & Yeh, (1995) some of the common core values include: a) peaceful relationship with nature; b) harmonious relationship with others; c) family as core unit and primary support system, and d) avoidance of excessively strong emotions. Additionally, the concept of Qi and yin and yang is also extremely prominent within the Chinese culture (Ming, 2014). A brief description of each philosophical beliefs and concepts as it pertains to mental health ensues.

*Taoism*

Taoism is a philosophical school of thought based on Laozi’s teachings (Wang, Wong, & Yeh, 2016). According to Jenni (1999), Tao may be understood as law of nature. Tao is loosely translated as “the Way” and the main teaching of Taoism is living harmoniously with nature with no forceful interference from external sources (Liu, 1997 as cited in Wang et al., 2016). Harmonious living can be further categorized into two broad principles: humans following nature’s law and the Way (or Tao) and humans following human’s law (Lam et al., 2010). The
first principle was meant to indicate humans living harmoniously with nature whereas the second principle was meant for humans living harmoniously with one another (Lam et al., 2010). Living harmoniously with Tao includes being genuine, unbounded by social constructs, free from desires, and living simplistically (Ho, 1995; Lee, Lin, Huang, & Fredrickson, 2013). The concept of Qi and yin and yang are crucial in understanding Taoism.

Qi. According to Taoist teaching, Qi is thought of as underlying all aspects of life such as in weather, arts, architecture, and health (Ming, 2014). Qi is formless, ever changing, and difficult to define completely. Due to Qi’s ever changing property, sensitivity to the change process is crucial in understanding Chinese cultural conception of health (Ming, 2014). An example of how Qi and emotions are linked can be found in *Huang Di Nei Jing*, an ancient Chinese medical text:

Huang Di:

I know that the hundred diseases are generated by the qi.

When one is angry, then the qi rises.

When one is happy, then the qi relaxes.

When one is sad, then the qi dissipates.

When one is in fear, then the qi moves down.

In case of cold the qi collects;

In case of heat, the qi flows out.

When one is frightened, then the qi is in disorder.

When one is exhausted, then the qi is wasted.

When one is pensive, then the qi lumps together. (Unschuld, 2003, p. 161 - 162).
As can be seen from the quotation above, the movement of Qi is directly related to one’s emotions and sense of health. Coexisting along with the concept of Qi is yin and yang (Ming, 2014). Although distinct, yin yang needs to be considered simultaneously with Qi for a holistic perspective of health.

Yin Yang

The philosophy of yin and yang dictates that all things are composed of two interdependent yet distinct counterparts (Ming, 2014). Yin possesses qualities such as negative, dark, invisible, whereas yang possesses qualities such as proactive, positive, light, and visible. Yin yang philosophy dictates that opposites should coexist peacefully and both are interdependent on the other (Ming, 2014). One cannot exist without the other. For example, light does not exist in the absence of darkness. According to Ming (2014), Qi is the line separating yin and the yang, acting as both the connecting and dividing boundary. The concept of balance and moderation arises out of yin yang philosophy and Chinese people strive to live a balanced lifestyle (Ming, 2014), such as not expressing excessive emotions.

Application to Mental Health

Mental health is an important subject in Chinese medicine, although it is not seen as independent of physical health or the environment (Ming, 2014). Mind and body are conceptualized as a whole rather than distinct entities. Mind and body are seen as arising from the same Qi source; therefore, there is overlap between mind and body (Ming, 2014). Illness, both physical and/or mental, is a result of imbalance between yin and yang. Based on this conceptualization of health, it is not surprising that Chinese individuals would seek out herbalists and acupuncturists, rather than mental health professionals, as means to restore healthy functioning (Leung et al., 2012).
For individuals who utilize religious coping skills, the teachings of Taoism may deter help-seeking behaviors completely (Yip, 2004). Because Taoism espouses the idea of living harmoniously with nature, there is the belief that everything happens naturally and one ought not to alter the course of nature. Thus, a Taoist may believe that accepting one’s fate of living with mental illness is the best way to cope and transcend worldly suffering (Yip, 2004). Due to one’s health being seen as holistic with nature, mental health issues are at times considered an outcome of “weak” or “poor” spiritual strength, which may be stigmatizing (Lam et al., 2010).

Confucianism

Confucianism is a system of philosophical and ethical teachings that dictates the pattern of interpersonal relationships and human virtues (Wang et al., 2016). These teachings are designed to attain the ultimate goal in Confucianism: harmony within oneself and with others (Ho, 1995; Joshanloo, 2014; Lee et al., 2013). To attain the aforementioned goal, Confucius espoused the belief that people need to cultivate ren, loosely translated as compassion, benevolence, or sacrificial love (Wang et al., 2016). Ren is an important virtue in Confucianism and encompasses many different interpersonal relationships such as between young and old, husband and wife, ruler and subject (Tao, 1996). According to Hwang (1998), ren is achieved when individuals adopt appropriate code of conduct based on cognitive appraisal of the relationship dynamics. For example, elders and rulers are expected to treat others with gentleness, benevolence, and righteousness whereas children and citizens should behave according to principles of deference, loyalty, obedience, and filial piety (Hsiao, Klimidis, Minas, & Tan, 2006). Maintaining social harmony is highly emphasized and is regarded as being more important than individual expression of opinions and values (Pearson, 1993).
The importance of relationship resulted in what Markus and Kitayama (1991) termed as Chinese’s interdependent self-construal, where one’s self-construct is strongly influenced by their social standing and relationship with others. This construct is very similar to the concept of ‘face’ where one’s image is contingent on their social position (Hu, 1944, as cited in Liao & Bond, 2011). Similarly, Ho (1995) coined the term ‘relational self’ to refer to Asians’ distinctive aspect of self that includes a social component. It is evident that living harmoniously with others is a benchmark for Chinese people’s sense of well-being (Wang et al., 2016).

According to Confucianism, development of mental health issues may stem from dysfunctional interpersonal dynamics and failure in maintaining harmonious relationships (Hsiao et al., 2006). Additionally, Confucianism espouses the idea that people’s destiny is contingent mainly on their moral upright (Lam et al., 2010). Therefore, the development of mental health disorders is seen as part of individuals’ destiny due to their moral failure. Thus, Chinese individuals do not seek mental health professionals because it may indicate their failure in maintaining harmony with others and it may indicate they have morally failed as a person. Seeking mental health professionals, under such a framework, typically generates feelings of shame and embarrassment for the entire family.

Buddhism

Buddhism was introduced to China during the Han dynasty and is based on the teachings of Buddha Gautama (Wang et al., 2016). Buddhism promotes and inspires people to seek paths to enlightenment (Lam et al., 2010). One core belief in achieving enlightenment is the idea of nonattachment, the release of humans’ clinginess to all phenomena (Sahdra, Shaver, & Brown, 2010). Because Buddhism espouses the idea of impermanence, attachment to any worldly phenomena is considered detrimental (Wang et al., 2016). Buddhists believe that suffering is a
given. As such, desires to avoid pain and cling to hedonistic pleasures are futile (Wang et al., 2016). Note that the term attachment used in Buddhist teaching is different from the term attachment used in the study of attachment (e.g. Ainsworth, Blehar, Waters, & Wall, 1978) in Western psychology.

Aside from nonattachment, another Buddhist core belief is that the achievement of enlightenment is by conducting good acts (Lam et al., 2010). According to the beliefs of Buddhism, people undergo the process of birth and rebirth until one achieves supreme enlightenment. Buddhists believe that conducting good acts would result in positive consequences whereas performing bad acts would result in negative consequences. To achieve supreme enlightenment, one needs to experience suffering of the world, embody nonattachment, and perform good deeds, possibly over many different lives (Lam et al., 2010).

Because Buddhist believe in the concept of birth and rebirth, the presence of mental disorder is sometimes thought of as punishment for misdeeds from previous lives (Lam et al., 2010). Individuals who suffer from mental health concerns may be stigmatized as having performed treacherous behaviors in past lives. Consequently, Chinese individuals choose to not seek help due to the high stigma being attached to the presence of mental health issues. Additionally, mental health symptoms such as feelings of frustration, anxiety, and depression are conceptualized as a result of being mentally fixated or overly attached, the antithesis of nonattachment in Buddhist teaching (Sahdra et al., 2010; Wallace & Shapiro, 2006). Seeking help for mental health concerns can be stigmatizing as individuals could be considered as overly indulgent or possessing weak willpower.

A few consistent themes were found within these three philosophical beliefs: etiology of mental health is different from Western conception, mental health concerns are highly
stigmatized, and seeking help outside family is strongly discouraged (Lam et al., 2010). These themes reduce the likelihood that Chinese individuals would seek mental health services. In the following section, factors that directly influence help-seeking intention will be examined utilizing the theory of planned behavior.

Theory of Planned Behavior

Several theories have been utilized in the study of help-seeking behaviors such as the health belief model (Rosenstock, 2005), Cramer’s Model (Cramer, 1999), and theory of planned behavior (TPB; Ajzen, 1991). Among all the theories, the theory of planned behavior is one of the most widely used theory in predicting help-seeking intention and behavior (e.g. Andrykowski & Burris, 2010; Lee, 2016; Mak & Davis, 2014; Mo & Mak, 2009). Additionally, this theory is designed to include the role of culture as part of the theory (Lee, 2016), thus making it applicable to this study.

According to Ajzen (1991), TPB is “a theory designed to predict and explain human behavior in specific contexts” (p. 181). Ajzen created the theory of planned behavior by extending the theory of reasoned action (Ajzen & Fishbein, 1980). Ajzen postulated that people’s behavior is influenced by their intention, perceived behavioral control, attitude, and subjective norms. Accordingly, the main factor in predicting people’s behavior is their intention to conduct said behavior. Ajzen postulated that intentions are indicators of individuals’ level of motivation to perform a specific behavior. Generally, stronger intention should result in greater likelihood of engaging in behavior (Ajzen, 1991). For example, if Bob’s goal is to exercise in a gym, his engagement in exercise behavior would largely depend on his intention. The greater his intention is to exercise in a gym, the more likely he is to engage in such behavior.
A third component of this theory is perceived behavioral control. Ajzen (1991) defined perceived behavioral control as people’s perception of how easy or difficult it would be to conduct the behavior of interest. Ajzen likened his concept of perceived behavioral control to Bandura’s (1977, 1982) concept of perceived self-efficacy. Accordingly, individuals’ behavior is strongly associated with their confidence of successfully performing the behavior. Ajzen (2002) later included the component of controllability as part of perceived behavioral control. Controllability reflects the extent individuals feel the conduct of a behavior is within their control.

An example may be helpful to illustrate the difference between self-efficacy and controllability. Using the example of going to the gym, Bob would be more likely to exercise in the gym if he feels capable of completing exercises (self-efficacy). However, the likelihood of Bob exercising in a gym is decreased if Bob attributes control to external factors such as weather or presence of friends. Again, the important aspect of this construct is individuals’ perception of their behavioral control rather than their actual control. Ajzen postulated that intention and perceived behavioral control can be used in combination to predict behavior. Figure A.1 depicts the relationship of variables in the prediction of specific behaviors.

![Figure A.1. Theory of planned behavior (Ajzen, 1991).](image-url)
As can be seen in Figure A.1, there are two additional variables which influence behavior though intention: attitude toward behavior and subjective norm. Ajzen (1991) defined attitude toward behavior as people’s evaluation of the behavior, resulting in either favorable or unfavorable appraisal. Generally, the more favorable attitude towards a behavior, the greater the intention would be (Ajzen, 1991). Continuing with the example of Bob, the more favorable Bob’s attitude is towards exercising in gym, the greater his intention in engaging in such behavior.

Subjective norm on the other hand is defined as an individuals’ perception of social pressure to perform the behavior (Ajzen, 1991). Generally, higher levels of subjective norms would result in higher levels of intention (Ajzen, 1991). To illustrate, if Bob perceives that there is strong social pressure to exercise in a gym, he would have higher levels of intention to go to a gym to exercise.

One limitation of the TPB is worth mentioning as it pertains to this study. Research utilizing TPB rely heavily on participants’ self-report (e.g. Davis et al., 2016; Mak & Davis, 2014; Mo & Mak, 2009). Results utilizing participants’ self-report however may suffer from presentational biases (Gaes, Kalle, & Tedeschi, 1978), resulting in threat to reliability and validity of TPB (Armitage & Conner, 2001). A few research findings found that there is discrepancy between participants’ self-reported behavior versus participants’ observed behavior, implying that self-reported behavior may be unreliable (Armitage & Conner, 1999; Norwich & Rovoli, 1993). The unreliability of participants’ self-report however is largely ignored in studies utilizing TPB (Armitage & Conner, 2001).

To address the above limitation among other purposes, Armitage and Conner (2001) conducted a meta-analysis on the utility of TPB using 185 studies. Armitage and Conner found
that both intention and perceived behavioral control accounted for statistically significant amount of variance in self-reported behavior ($R^2 = .31$) and observed behavior ($R^2 = .20$). Although there indeed is a discrepancy between self-reported behavior and observed behavior, TPB could nevertheless account for considerable amount of variance in observed behavior (Conner and Armitage, 2001). Moreover, attitude, social norms, and perceived behavioral control accounted for 39% of the variance of behavioral intention (Conner & Armitage, 2001). Taken together, these results provided further evidence of the efficacy of TPB in predicting behavior.

TPB has been used to investigate and predict psychological help-seeking (Mak & Davis, 2014; Mo & Mak, 2009; Smith, Tran, & Thompson, 2008). For example, Smith, Tran, and Thompson (2008) investigated whether men’s attitude towards psychological services predicts their intention to seek mental health professionals. In this study, 307 male undergraduates, mostly White (81.4%), participated. Participants were provided assessments to measure their level of masculinity, psychological help-seeking attitude, and psychological help-seeking intention. Results revealed that traditional masculinity ideology predicted help-seeking attitude, which in turn predicted help-seeking intention. Help-seeking attitude explained 29.6% of the variance in psychological help-seeking intentions (Smith et al., 2008).

The applicability of TPB on psychological help-seeking using Chinese samples has also been investigated by Mo and Mak (2009) and Mak and Davis (2014). Mo and Mak tested the applicability of TPB on Chinese population in Hong Kong. They measured participants’ psychological help-seeking attitude, subjective norm, perceived behavioral control, and help-seeking intention using self-created measures according to Ajzen’s (1991) recommendations (Figure A.2).
Figure A.2. Theory of planned behavior (Ajzen, 1991).

Adding a cultural dimension to the applicability of TPB, Mo and Mak (2009) reasoned that Chinese culture characterized relationship based on hierarchy and harmony. Respect and conformity to authority figures are especially valued within the Chinese society and it stands to reason that these values would shape individuals’ attitudes and perceived behavioral control on certain behaviors (Mo & Mak, 2009). Thus, Mo and Mak hypothesized that subjective norm has a strong influence on Chinese individuals’ help-seeking process. Specifically, they hypothesized that subjective norm not only has a direct effect on help-seeking intention, but also an indirect effect, by predicting both perceived behavioral control and attitude. Mo and Mak termed this model a partial mediation model as subjective norm is partially mediated by perceived behavioral control and help-seeking attitude (Figure A.3).

Figure A.3. Partial mediation model (Mo & Mak, 2009).
To determine which model would yield better fit, Mo and Mak (2009) analyzed Ajzen’s (1991) original model (Figure A.1) and a partial mediation model (Figure A.2). Mo and Mak found that the partial mediation model yielded a statistically significant better fit for their samples when compared to Ajzen’s (1991) original model. The partial mediation model explained 57% of the variance of help-seeking intention (Mo & Mak, 2009). Results from this study indicated that TPB can be generalized to Chinese population, and that the partial mediation model may be more culturally fitting when examining psychological help-seeking for Chinese individuals.

Mak and Davis (2014) replicated Mo and Mak’s (2009) study utilizing Chinese samples from Macao. Mak and Davis added two variables, symptom severity and gender, to explore whether those variables had any effect on help-seeking intention. Results again indicated that the partial mediation model was a better fit than Ajzen’s (1991) original model. The partial mediation model explained 58.5% of variance of help-seeking intention. However, Mak and Davis found no direct effect of gender and symptom severity on help-seeking intention. Both of these studies seem to suggest that the partial mediation model (Figure A.3), rather than Ajzen (1991) original model (Figure A.2), may be a better fit for explaining Chinese individuals’ psychological help-seeking intention.

One possible limitation in both Mo and Mak’s (2009) and Mak and Davis’ (2014) studies lies in their measurement of variables in TPB. Although they created the measurements according to Ajzen’s (1991) recommendation, the items may not be psychometrically sound. Ajzen reported that items created to measure TPB variables usually only correlate moderately with global measurements. This finding suggest that items created to measure TPB variables may at times fail to completely assess important aspects of participants’ beliefs. I postulated that the
use of established measurements would strengthen the accurate measurement of each TPB construct.

**Subjective Norm**

Subjective norm is defined as individuals’ perception of social pressure to perform the behavior (Ajzen, 1991). Applying this definition to help-seeking behavior regarding mental health services, subjective norm can be defined as “people’s perceived evaluation of their significant others’ support or lack of support for their help-seeking behaviors” (Mak & Davis, 2014, p. 1503). Individuals’ decision to seek help would be influence by others around the individual, depending on whether the individual perceived others would be accepting of help-seeking behavior. Seeking help from a mental health professional is less likely to happen if others do not approve of such behavior. This conception of social norm is closely linked to the concepts of public stigma and loss of face.

**Public Stigma**

Public stigma is the perception endorsed by the general public that individuals who seek mental health services are socially unacceptable and undesirable (Corrigan, 2004; Vogel, Wade, & Hackler, 2007). Deane and Chamberlain (1994) provided a similar definition of public stigma: fear of being judged more negatively by significant others due to seeking professional help from mental health provider. Public stigma of help-seeking was postulated to be one of the biggest barriers to utilization of mental health services (Corrigan, 2004; Schomerus & Angermeyer, 2008; Vogel, Wester, & Larson, 2007). Because seeking mental health services is stigmatized socially, individuals seeking counseling may receive negative labels, stereotypes, discrimination, and prejudice (Corrigan, 2004). Individuals therefore refrain from seeking psychological help to avoid being stigmatized.
The existence of public stigma in seeking psychological services was made clear by a research conducted by Ben-Porath (2002). In this research, participants rated a hypothetical individual less favorably when they sought help for depression as compared to when a hypothetical individual sought help for back pain or when the individual had depression but did not seek help (Ben-Porath, 2002). It appears that people who suffer from mental illness and seek help is viewed less favorably than individuals who suffer from mental illness and do not seek help.

The saliency of public stigma may be compounded for Chinese individuals due to their belief system (Augsberger, Yeung, Dougher, & Hahm, 2015). The collectivist value shared by the Chinese community means that a decision taken by one individual affects not just the individual, but the entire family (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). The behavior of one individual family member therefore extends to the entire family and even ancestors (Fang & Wark, 1998; Lee, 1997). From this collectivist perspective, there are two foundational tenets of Chinese families: non-disclosure of one’s private concerns and maintaining a respectful and competent public appearance (Lee, 1997).

Disclosing one’s mental health issues can be considered as an inappropriate behavior that brings negative attention to the family (Chiu, 2004). Typically, disclosing of mental health issues could create feelings of inferiority, incompetence, shame, and embarrassment for the entire family (Fang & Wark, 1998; Lee, 1997). For example, Fong and Tsuang (2007) postulated that help-seeking brings shame to family because it may suggest that the family has failed to resolve the situation amongst themselves. Indeed, a study conducted by Ausberger, Yeung, Dougher, and Hahm (2015) found that Asian American women reported the importance of keeping mental
health issues within the family. Admitting to a mental health professional about one’s mental health issues is considered as “weak” (Ausberger et al., 2015; Kung, 2004).

**Loss of Face**

Another barrier to Chinese seeking mental health profession is due to loss of face. Although the concept of face regulates interpersonal communication in all cultures (Liao & Bond, 2011), it is especially important in the Chinese culture (Gabrenya & Hwang, 1996). Hu (1944, cited in Liao & Bond, 2011) defined Chinese conception of face by utilizing the indigenous concept of *mianzi* and *lian*. *Mianzi* refers to one’s social standing, gained via social success whereas *lian* refers to one’s moral righteousness (Hu, 1944, cited in Liao & Bond, 2011). Loss of face may elicit negative emotions such as embarrassment, discomfort, and shame (Pearson, Andersson, & Porath, 2000). Behaviorally, loss of face may propel individuals from discontinuing relationship and harming the likelihood of future interaction between parties (Brown & Levinson, 1987; Hodgins, Liebeskind, & Schwartz, 1996).

Perhaps the biggest emotion related to loss of face when seeking mental health professional is shame. Feelings of shame have been strongly associated with Chinese Americans’ negative attitude towards the therapeutic process (Chen & Mak, 2008; Ma, 2000). Other researchers postulated that seeking mental health professionals will only enhance the feelings of embarrassment and heightened the level of perceived scrutiny on family members (Qian, Smith, Chen, & Xia, 2001). In an attempt to avoid feelings of shame and loss of face, Chinese individuals would rather avoid seeking mental health professionals (Chen & Mak, 2008; Ma, 2000; Quach & Hall, 2013).

**Attitude**

Ajzen (1991) defined attitude toward behavior as people’s evaluation of the behavior,
resulting in either favorable or unfavorable appraisal. Fischer and Turner’s (1970) conceptualized help-seeking attitude as “one’s tendency to seek or resist professional aid during a personal crisis or following prolonged psychological discomfort.” (p. 79). Individuals’ attitude towards mental health is an important variable as it has been found to be a strong predictor of their help-seeking intention (Bayer & Peay, 1997; Carlton & Deane, 2000; Mackenzie, Gekoski, & Knox, 2006). For example, help-seeking attitudes was found to be one of the most important predictors for help-seeking intention among high school students (Carlton & Deane, 2000). Typically, many researchers have found that negative attitude towards help-seeking acts as an obstacle to seeking out mental health professionals (Robb, Haley, Becker, Polivka, & Chwa, 2003; Sareen, Cox, Afifi, Yu, & Stein, 2005; Woodward & Pachana, 2009).

The influence of attitude on help-seeking intention seemed to be generalizable to Chinese individuals as well (Chang, 2008; Chang, 2014). For example, Chang (2008) discovered that help-seeking attitudes of Chinese students significantly predicted their help-seeking intention. Similarly, Chang (2013) found that Chinese students who possessed positive attitudes of help-seeking had increased likelihood of seeking help for their mental health issues. More importantly, Tieu and Konnert (2014) discovered that Chinese Canadian older adults’ help-seeking attitude is significantly lower than the general population, which suggest that Chinese people may generally have less positive attitude towards seeking mental health services.

*Perceived Behavioral Control*

Ajzen (1991) defined perceived behavioral control (PBC) as people’s perception of how easy or difficult it would be to conduct the behavior of interest. Applying this definition to psychological help-seeking, perceived behavioral control is individuals’ perception of their capability to seek out mental health professionals (Mak & Davis, 2014). Perceived behavioral
control has been found to be a strong predictor of help-seeking intention (Mackenzie et al., 2004; Westerhof et al., 2008) and this result extends to Chinese samples (Mak & Davis, 2014; Mo & Mak, 2009; Lee, 2016).

As mentioned, perceived behavioral control can be further divided into two constructs: self-efficacy and controllability (Ajzen, 2002). Measuring PBC has been challenging and most researchers (e.g. Mak & Davis, 2014; Mo & Mak, 2008) created their own items rather than using established measurements. Some of the items aimed at measuring help-seeking PBC from Mo and Mak’s (2009) study include “Seeking mental health service is dependent on my choice” and “I can seek mental health service if I like to do so” (p. 684). Although self-created measures may contain face validity, it may suffer from other types of validity such as construct validity. The only validated measurement that currently exist in the literature to measure help-seeking PBC is Mackenzie and colleagues’ (2004) Help Seeking Propensity subscale (Hartong, 2011). More detailed information regarding this subscale is provided under the Methodology chapter.

Additional Barriers

Apart from variables described above, there are other variables that were noted to influence help-seeking intention such as gender (Addis & Mahalik, 2003; Morgan, Ness, & Robinson, 2003; Shek, 1992), mental health status (Outram, Murphy, & Cockburn, 2004; Vogel & Wei, 2005), and prior help-seeking (Skogstad, Deane, & Spicer, 2006). The effect of these variables on help-seeking intention decreased considerably or became statistically non-significant when they were considered simultaneously with other TPB variables. (Mak & Davis, 2014; Mo and Mak, 2009). Further attention therefore will be given to variables that are thought to add unique variance to help-seeking intention namely self-stigma, mental health literacy, and acculturation.
Self-Stigma

Self-stigma is the lowering of one’s self-worth and self-esteem due to the internalization that one is socially undesirable or unacceptable (Vogel, Wade, & Haake, 2006; Wynaden et al., 2005). Consistent with the effect of public stigma and loss of face, self-stigma may bring about feelings of shame, alienation, social withdrawal, and perceived discrimination (Ritsher, Otilingam, & Grajales, 2003). Due to Chinese collectivist tendency, Lam and colleagues (2010) postulated that self-stigma may be higher in Chinese society as there is higher internalization of public stigma. Moreover, depending on the philosophical beliefs, some Chinese individuals believe that their mental health concerns are self-inflicted due to lack of willpower or due to fate, thus increasing levels of self-stigma (Lam et al., 2010).

Young and Ng (2016) found that Chinese participants in Hong Kong and Guangzhou reported experiencing self-stigma, especially feelings of shame, relating to their mental illness and mental health use. In the same study, participants’ self-stigma was found to be negatively associated with self-esteem, quality of life, and recovery prognosis (Young & Ng, 2016).

Many Chinese individuals find seeking professional mental health stigmatizing because of the belief that sharing problems outside of the familial support system denotes weakness in character, immaturity, and deficiency in self-discipline (Chang & Chang, 2004; Kung, 2004). The emotional openness expected in counseling may be contrary to Chinese cultural value of emotional suppression (Uba, 1994). Emotional expression in counseling therefore may typically feel embarrassing and shameful for Chinese individuals (Kim & Omizo, 2003). Although not directly related to Chinese individuals, Wong and colleagues (2010) found that when Asian American did seek counseling, they typically discussed with their counselor issues surrounding vocational and academic concerns rather than psychological and emotional issues. Not
surprisingly, Komiya and colleague (2000) found that self-stigma is an indirect barrier to help-seeking intention, mediated by negative help-seeking attitude.

*Mental Health Literacy*

Mental health literacy is regarded as one of the important variable in promoting early recognition of mental health issues, reducing stigma, and enhancing help-seeking behaviors (Wei, McGrath, Hayden, & Kutcher, 2015). Research findings show that greater knowledge of mental health led to greater awareness regarding ways to seek treatment as well as lower stigma associated with seeking help for mental health, thereby increasing the utilization of mental health services (Corrigan & Watson, 2003; Henderson, Evans-Lacko, & Thornicroft, 2013; Rüsch, Evans-Lacko, Henderson, Flach, & Thornicroft, 2011).

The concept of mental health literacy emerged from the research on health literacy (Kutcher, Wei, & Coniglio, 2016). Mental health literacy was previously defined as “knowledge and beliefs about mental disorders which aid their recognition, management or prevention.” (Jorm et al., 1997a p. 182). More recently, mental health literacy is defined as consisting of four domains: understanding ways to obtain and maintain optimal mental health; understanding mental disorders and related treatments; lowering mental health stigma; and increasing help-seeking propensity (Kutcher, Bagnell, & Wei, 2015; Kutcher & Wei, 2014; Wei, McGrath, Hayden, & Kutcher, 2015).

Pioneering work in the field of mental health literacy was conducted by Jorm and colleagues (1997a; 1997b) when they investigated Australians’ mental health literacy. Jorm and colleagues utilized a vignette to examine whether participants could identify symptoms of schizophrenia. A majority of participants who managed to successfully identify symptoms of schizophrenia in the vignette also identified seeing a doctor or a counselor as viable treatment
option (Jorm et al., 1997a; 1997b), indicating that participants are more likely to seek treatment when they could accurately identify mental health symptoms.

A replication of Jorm and colleagues’ (1997b) study was conducted by Wong and colleagues (2010). Wong and colleagues recruited Chinese speaking participants from Australia and measured whether participants could identify the mental illness provided in the vignette and what treatment options are favorable. Wong and colleagues found that only 15.5% of participants identified the symptoms presented in the vignette as schizophrenia/psychosis, indicating low levels of mental health awareness and recognition. According to Chinese culture, psychosis is distinguished by the indigenous concept of Dian and Kuang (Liu, 1981). Dian is known as the psychotic state without the accompanying excitation whereas Kuang is the psychotic state with excitation (Liu, 1981). Wong and colleagues argued that the low rates of identification of schizophrenia may be due to the strong stigma being attached to schizophrenia. Interestingly though, 95.3% of participants rated psychotherapy as an effective treatment option (Wong et al., 2010). Wong and colleagues suggested that participants were acculturated enough to attribute mental health symptoms to psychosocial difficulties, thus the high ratings of seeking psychotherapy, despite the lack of accurately labelling mental disorders. However, this reasoning cannot be confirmed as Wong and colleagues did not measure participants’ level of acculturation.

Among the Chinese Australians, it appears that there are gender differences in terms of mental health literacy. Wong and colleagues (2011) found that females managed to successfully identify mental disorders at a higher rate than males. Additionally, there was statistical significant differences on how the genders endorse treatment. Higher percentage of males (44%) considered dealing with the issue alone as helpful when compared to females (18.3%); similarly,
males in this sample also tended to rate seeing a traditional Chinese medical doctor as helpful (94.7%) when compared to females (44.7%) (Wong, Lam, Poon, & Chow, 2011).

Despite the importance of mental health literacy on help-seeking behavior, the literature of Chinese Americans’ mental health literacy is extremely scant. An extensive review of the literature revealed only two research studies on Chinese Americans’ mental health knowledge: one conducted by Tabora and Flaskerud in 1997 and the other by Loo, Tong, and True in 1989. Tabora and Flakerud (1997) wanted to explore the mental health practices and beliefs of Chinese American immigrant women. By utilizing both qualitative and quantitative methods, they found that there were strong cultural barriers to the utilization of mental health services. Some barriers include the strong avoidance of feelings of shame associated with seeking mental health services and the belief that Western-type intervention was inadequate to meet participants’ needs (Tabora & Flakerud, 1997).

Loo, Tong, and True (1989) interviewed residents of Chinatown in San Francisco in the hope of gaining better understanding of Chinese Americans’ underutilization of mental health services. Loo and colleagues found that lack of awareness and knowledge of mental health services is the biggest factor of underutilization among their participants. Some other factors include the belief that mental health issues cannot be prevented and low priority in seeking mental health relief. This research was conducted almost 30 years ago and there is a clear need to study Chinese and Chinese Americans’ level of mental health literacy and how it is related to help-seeking behavior.

One of the most problematic issues with regards to examining people’s mental health literacy lies in the measurement tools used (Kutcher et al., 2016). Wei and colleagues (2015) found that there were no standardized tools to measure mental health literacy. When
measurement tools were utilized, psychometric properties of the measurement were rarely
examined, calling into question the validity of results. Lastly, most measurements used failed to
encapsulate the four domains in the definition of mental health literacy (Wei et al., 2015). It
appears that a psychometrically sound instrument to measure mental health literacy has yet to be
created. Stan and colleagues (2016) suggested that true or false responses that covers the four
domains of mental health literacy may provide more rigor in assessing the entire construct of
mental health literacy.

**Acculturation**

Acculturation is defined as “a dual process of cultural and psychological change that
takes place as a result of contact between two or more cultural groups and their individual
members” (Berry, 2005, p. 698). The study of acculturation is usually focused on the process of
psychological and cultural change that ensues when individuals from the minority culture exist in
the majority culture. According to Berry (2005), this acculturation process involves different
types of accommodation which results in long term sociocultural and psychological adaptation
between cultural groups. On an individual level, acculturation involves personal changes in one’s
behavior (Berry, 2005).

Accordingly, there are four acculturation strategies that one may utilize: integration,
assimilation, separation, and marginalization (Berry, 2005). Integration refers to individuals who
accept the host culture and simultaneously maintain their original cultural identity. Assimilation
refers to individuals who accept the host culture and decide to forgo their original cultural
identity. Separation refers to individuals who maintain their original cultural identity and reject
the host culture. Finally, marginalization refers to individuals who rejects both their original
cultural identity and host culture (Berry, 2005).
Research findings have been inconsistent in regards to the influence of acculturation on individuals’ help-seeking attitude. Some researchers found that acculturation strategies influences individuals’ attitude towards seeking mental health professional (Miller, Yang, Hui, Choi, & Lim, 2011). Generally, in western countries, the better people are acculturated to the host culture, the better their attitude is towards seeking mental health professional services (Suinn, 2010; Zhang & Dixon, 2003). Other researches however discovered that acculturation was not a significant predictor of individuals’ help-seeking attitude regarding mental health services (Atkinson, Lowe, & Matthews, 1995; Li, Marbly, Bradley, & Lan, 2016).

The inconsistent findings regarding the influence of acculturation and attitudes towards seeking mental health services could be due to the inclusion of many different subgroups among the Asian population (Quach & Hall, 2013). Accordingly, different Asian subgroups may hold different attitudes towards seeking mental health professionals. For example, Waxler (1974) reported stigma of mental disorder to be nonexistent in Sri Lanka. In Sri Lanka, mental disorders are considered to be curable and brief (Waxler, 1974). Therefore, an inclusion of a variety of Asian subgroups could have led to the inconsistent and inconclusive findings. Quach and Hall (2013) recommended that researchers focus on specific Asian subgroups to better understand the influence of acculturation on help-seeking attitude.

Focusing on Chinese Americans, Tata and Leong (1994) studied if individual-collectivism, social-network orientation, and acculturation could predict Chinese Americans’ help-seeking attitude. Utilizing multiple regression, results indicated acculturation to be a statistically significant predictor for help-seeking attitude ($p < .05$). However, acculturation could only predict 3% of Chinese American students’ help-seeking attitude (Tata & Leong, 1994).
With such small effect size, definitive conclusion regarding the role of acculturation on Chinese Americans’ help seeking attitude cannot be determined.

More recently, Li and colleagues (2016) examined whether acculturation, ethnic identity, and English proficiency of Chinese international students influences their attitudes towards seeking professional counseling. Li and colleagues utilized G*Power analysis to determine a minimum sample of 76. The criteria set for the G*Power analysis included a power of .80, effect size of .15, three predictors, and cutoff score of .05. Li and colleagues ended with a total of 109 participants, exceeding the minimum sample requirement. They conducted a hierarchical multiple regression to determine if any of the three predictors predicted participants’ help-seeking attitude. Results showed that acculturation was not a statistically significant predictor of help-seeking attitude, \( p = .214 \), with low beta weight, \( \beta = .13 \).

Findings from these two research supports the idea that there is no statistically significant direct relationship between acculturation and help-seeking attitude. Perhaps the effect of acculturation is manifested in different concepts such as loss of face, self-stigma, mental health literacy etc., and that the effect of acculturation appears non-existent when considered simultaneously with these variables. A measure of acculturation will not be included in this study as previous research has not found it to be an important variable that contribute unique variance to help-seeking attitude and intention.

Summary

To summarize, the underutilization of mental health services among Chinese individuals is concerning (Chiu, 2004; Rudowicz & Au, 2001). There is however a dearth of literature on the help-seeking process of Chinese individuals, which prevents the creation of effective targeted interventions. The theory of planned behavior (Ajzen, 1991) had been previously used to assess
the help-seeking intentions of Chinese individuals in Hong Kong (Mo & Mak, 2009) and Macao (Mak & Davis, 2014). Based on the review of the literature, the following variables will be measured in this study: help-seeking attitude (Chang, 2008; Chang, 2014), perceived behavioral control (Mak & Davis, 2014; Mo & Mak, 2009; Lee, 2016), public stigma (Ausberger et al., 2015; Chiu, 2004), loss of face (Chen & Mak, 2008; Ma, 2000; Quach & Hall, 2013), self-stigma (Chang & Chang, 2004; Kung, 2004) and mental health literacy (Wei et al., 2015; Wong et al., 2011). Other variables such as acculturation (Li et al., 2016) and gender (Mak & Davis, 2014) will not be included in this study as they have not been shown to be significant in predicting help-seeking intentions.
APPENDIX B

EXTENDED METHODOLOGY
In this study, I aimed to create a path model to depict the variables which affects Chinese individuals’ help-seeking intention, specifically Chinese individuals who reside in the United States. Improving on Mo and Mak’s (2009) and Mak and Davis’ (2014) studies, I utilized established measurements that possess sound psychometric properties to better assess each TPB variables. Two additional variables, self-stigma and mental health literacy, were added to the path model to strengthen the prediction of help-seeking intention.

I hypothesized that the path model would look similar to Mo and Mak’s (2009) partial mediation model. Consistent with this model, subjective norm will predict help-seeking attitude, perceived behavioral control, and help-seeking intention, whereas help-seeking attitude and perceived behavioral control will each predict help-seeking intention (Figure A.3). The two additional variables, self-stigma and mental health literacy, will each predict help-seeking intention. The final hypothesized model, along with the directionality is depicted in Figure B.1.

Figure B.1. Hypothesized path model. Solid line represents positive prediction whereas dotted lines represents negative prediction.
Participants

Participants’ age ranged from 18 to 61 years old, with a mean of 32.56 (SD = 9.61). With regard to gender, there were 98 males (39%), 150 females (59.8%), and three participants (1.2%) whom did not indicate their gender. In looking at country of birth, most participants’ indicated China as their country of origin, with 98 participants (39%), followed by Malaysia, with 71 participants (28.29%), Taiwan, with 39 participants (15.54%), United States, with 18 participants (7.17%), Hong Kong, with eight participants (3.19%), Singapore, with 7 participants (2.79%), and one participant (0.4%) each from Canada, Brunei, Indonesia, Thailand, and Vietnam. Five individuals failed to indicate their country of origin.

Most of the participants in this study indicated that they are first generation immigrants, with 155 participants (61.8%) indicating as such. Twenty four participants (9.6%) indicated that they are second generation immigrants, and five participants (2%) indicated as third generation immigrants. There were 54 participants who indicated their immigration status as “other” (21.5%) and 13 participants (5.2%) failed to provide a response to this question. In terms of religion, the breakdown of participants’ responses are as follow: 31.1% “other”, 16.7% Protestant, 16.3% Buddhist, 11.6% atheist, 5.2% Taoist, 4.4% Catholic, 4.4% Agnostic, and 10.4% missing responses. For native language, 167 participants (66.5%) indicated Mandarin as their native language, followed by English with 38 responses (15.1%), Cantonese, with 24 responses (9.6%), “other” with 17 responses (6.8%), and five missing data (2%).168 (66.9%) participants indicated residing in Texas , followed by “other” with 44 responses (17.5%), California with 22 participants (8.8%), and New York with 12 participants (4.8%). Five participants (2%) failed to indicate their state of residence.
Most participants reported not having seen a mental health professional (70.5%). When inquired about if they had sought any informal help, 31.1% indicated that they did not seek help, 24.3% indicated seeking friends for help, and 13.5% responded turning to family members.

For participants who indicated having seen a mental health professional (27.5%), counselor (13.1%) was most frequently indicated, followed by school counselor (8.0%), and psychologist (4.8%). In terms of highest level of education, 93 participants (37.1%) have a Bachelor’s degree, 80 participants (31.9%) have a Master’s degree, 39 participants (15.5%) have a doctoral degree, 22 participants (8.8%) have some college education, 10 participants (4%) indicated high school education and three participants (1.2%) indicated “other”. There were four missing responses for this item. The demographic characteristics of participants are presented in Table B.1.

Table B.1: Participants’ Demographic Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>98</td>
<td>39.00</td>
</tr>
<tr>
<td>Female</td>
<td>150</td>
<td>59.80</td>
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<tr>
<td>Missing</td>
<td>3</td>
<td>1.20</td>
</tr>
</tbody>
</table>

| Country of Birth       |     |            |
| China                  | 98  | 39.00      |
| Malaysia               | 71  | 28.29      |
| Taiwan                 | 39  | 15.55      |
| United States          | 18  | 7.17       |
| Hong Kong              | 8   | 3.19       |
| Singapore              | 7   | 2.79       |
| Canada                 | 1   | 0.40       |
| Brunei                 | 1   | 0.40       |
| Indonesia              | 1   | 0.40       |
| Thailand               | 1   | 0.40       |
| Vietnam                | 1   | 0.40       |
| Missing                | 5   | 2.00       |

<p>| Immigration Generation |     |            |
| First generation       | 155 | 61.80      |
| Second generation      | 24  | 9.60       |
| Third generation       | 5   | 2.00       |</p>
<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Percentage</th>
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<tr>
<td>Other</td>
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<td>21.50</td>
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<tr>
<td>Missing</td>
<td>13</td>
<td>5.20</td>
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**Religion**

<table>
<thead>
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<tbody>
<tr>
<td>Taoist</td>
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<td>5.20</td>
</tr>
<tr>
<td>Buddhist</td>
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<td>16.30</td>
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<tr>
<td>Protestant</td>
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<tr>
<td>Catholic</td>
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<td>4.40</td>
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<tr>
<td>Agnostic</td>
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<td>4.40</td>
</tr>
<tr>
<td>Atheist</td>
<td>29</td>
<td>11.60</td>
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<tr>
<td>Other</td>
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<tr>
<td>Missing</td>
<td>26</td>
<td>10.40</td>
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**Native Language**

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<thead>
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<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandarin</td>
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</tr>
<tr>
<td>Cantonese</td>
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<tr>
<td>English</td>
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<td>15.10</td>
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<td>Other</td>
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<td>2.00</td>
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**State**

<table>
<thead>
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<th>Percentage</th>
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</thead>
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<td>Texas</td>
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<tr>
<td>California</td>
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<tr>
<td>New York</td>
<td>12</td>
<td>4.80</td>
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<tr>
<td>Other</td>
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<tr>
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**Seen Mental Health Professional**

<table>
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</thead>
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<td>70.50</td>
</tr>
<tr>
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<td>2.00</td>
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</table>

**What Mental Health Professional**

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselor</td>
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</tr>
<tr>
<td>School counselor</td>
<td>20</td>
<td>8.00</td>
</tr>
<tr>
<td>Psychologist</td>
<td>12</td>
<td>4.80</td>
</tr>
<tr>
<td>Psychiatrist</td>
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<td>1.20</td>
</tr>
<tr>
<td>Other</td>
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<td>0.40</td>
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</table>

**What Informal Help**

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<th>Percentage</th>
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</thead>
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<td>Did not seek help</td>
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<td>31.10</td>
</tr>
<tr>
<td>Friends</td>
<td>61</td>
<td>24.30</td>
</tr>
<tr>
<td>Family</td>
<td>34</td>
<td>13.50</td>
</tr>
<tr>
<td>Religious leaders</td>
<td>8</td>
<td>3.20</td>
</tr>
<tr>
<td>Others</td>
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<td>1.20</td>
</tr>
<tr>
<td>Education Level</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>------------------------</td>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>High school</td>
<td>10</td>
<td>4.00</td>
</tr>
<tr>
<td>Some college</td>
<td>22</td>
<td>8.80</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>93</td>
<td>37.10</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>80</td>
<td>31.90</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>39</td>
<td>15.50</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>1.60</td>
</tr>
</tbody>
</table>

Measures

Participants were administered a series of self-report questionnaires to assess the different variables necessary to examine the hypotheses of this study. These measures were chosen for their strong psychometric properties and their relevance to this study. Psychometric properties for each measurement are detailed below.

Demographic Questionnaire

Participants were provided with a brief demographic questionnaire to gather basic background information such as age, place of birth, ethnicity, gender, languages spoken, highest level of education attained, occupation, religion, and generational identity as immigrants. Basic demographics were collected to provide a representation of my participants (see Appendix F).

Intentions to Seek Counseling Inventory (ISCI)

Help seeking intention, operationally defined using the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975). The ISCI is a 17-item measurement designed to assess participants’ intention to seek counseling for various mental health issues. Items are scored on a 4-point Likert scale (1 = very unlikely, to 4 = very likely). Examples of mental health issues included in the measurement are depression, conflict with parents, test anxiety, and loneliness. Items are summed to produce a total score, where higher score denotes stronger help-seeking intentions.
Factor analysis on this measurement yielded three factors: Psychological and Interpersonal Concerns (10 items, Cronbach $\alpha = .90$), Academic Problems (4 items, Cronbach $\alpha = .71$), and Drug and Alcohol Problems (2 items, Cronbach $\alpha = .89$) (Cepeda-Benito & Short, 1998). The internal consistency for the whole scale was found to be strong (Cronbach $\alpha = .89$). Furthermore, Cepeda-Benito and Short (1998) found support for ISCI’s construct validity as the total ISCI scores correlated significantly with participants’ attitudes toward seeking psychological help ($r = .35, p < .001$) and overall psychological distress ($r = .23, p < .001$).

This instrument seems to possess cultural sensitivity as well. Internal consistency was high ($\alpha = .86$) when used with Asian international students (Yakunina, 2012). Additionally, when used on a Chinese sample, Lee (2016) found the alpha coefficient to be .93. These two studies provide support that this measurement may be suitable to be used with Chinese population.

Perception of Stigmatization by Others for Seeking Psychological Help Scale (PSOSH)

Public stigma, operationally defined using the Perception of Stigmatization by Others for Seeking Psychological Help Scale (PSOSH; Vogel, Wade, & Ascheman, 2009). The PSOSH is a 5-item unidimensional questionnaire designed to measure participants’ public stigma of help-seeking. Items are rated on a 5-point Likert scale (1 = not at all, to 5 = a great deal). Example of stigmatization statements in this measurement include “Think bad things of you” and “Think of you in a less favorable way”. Responses are summed to create a total PSOSH score, where higher score indicates greater public stigma when seeking professional counseling.

Vogel and colleagues (2009) provided supporting evidence of this scale’s unidimensional nature, test-retest reliability, internal consistency, as well as construct validity. Vogel and colleagues conducted a confirmatory factor analysis on the PSOSH which yielded a single factor, lending support for this scale’s unidimensional structure. Internal consistency for this scale was
strong (Cronbach $\alpha = .88$) for Asian American sample, which provide some support for this scale’s suitability to be used with ethnic Asian participants. The PSOSH was found to possess construct validity as it correlated significantly with participants’ public stigma towards counseling ($r = .31, p < .001$), public stigma towards mental illness ($r = .20, p < .001$), attitudes in seeking professional counseling ($r = .66, p < .001$), and self-stigma of help-seeking ($r = .37, p < .001$). The PSOSH was found to possess decent test-retest reliability over a three-week period ($r = .77, p < .001$) with minimal changes in mean score from first testing ($M = 11.30, SD = 3.66$) to second testing ($M = 11.56, SD = 3.78; p > .05$) (Vogel et al., 2009).

**Loss of Face Scale (LOF)**

Loss of face, operationally defined using the Loss of Face Scale (LOF; Zane & Yeh, 2002). The LOF is a unidimensional questionnaire consisting of 21-items designed to measure participants’ apprehension in losing one’s social uprightness within the Asian ethnic community. Some examples of items on this measure are “I maintain a low profile because I do not want to make mistakes in front of other people” and “I say I may be in error before commenting on something”. Participants’ responses are summed to produce a total LOF score, where higher scores signify greater levels of concerns with face loss in social situation (Zane & Yeh, 2002).

Zane and Yeh (2002) conducted a factor analysis on the LOF with Asian American participants which yielded a one factor solution, providing support for this scale’s unidimensional structure. Additionally, the internal consistency has been found to be strong with Cronbach $\alpha = .83$, providing some evidence for the reliability of the LOF. Zane and Yeh (2002) also sought to establish construct validity for the LOF. They found that the LOF correlated significantly with public self-awareness ($r = .42, p < .001$), extraversion ($r = -.28, p < .01$), social anxiety ($r = .54, p < .001$), and other-directedness ($r = .44, p < .001$), which provided
support for LOF’s construct validity. Not surprisingly, when the LOF was compared between European American and Asian American sample, Asian American sample scored significantly higher (M = 91.8, SD = 16.9) than European American (M = 80.4, SD = 16.3), t(156) = 4.32, p < .01. This result is congruent with the belief that Asian Americans have higher levels of concerns of face loss as compared to European Americans and provides further support for the validity of this construct (Zane & Yeh, 2002).

Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH–SF)

Help seeking attitude, operationally defined using the Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH–SF; Fischer & Farina, 1995). The ATTSPPH-SF is a 10-item questionnaire designed to measure participants’ attitudes towards counseling. Items are scored on a 4-point Likert scale (0 = disagree, to 3 = agree). Example of items include “If I believe I was having a mental breakdown, my first inclination would be to get professional attention” and “If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.” Responses are summed to produce a total score, where higher score indicates more positive attitudes towards seeking professional mental health counseling.

Fischer and Farina (1995) conducted a factor analysis of the ATSSPH-SF with 389 undergraduates. The factor analysis yielded a one-factor solution, providing support for the unidimensional structure of this measurement (Fischer & Farina, 1995). The internal consistency of the ATSSPH-SF has been found to be adequate (Cronbach α = .84), providing initial evidence for this measurement’s reliability. The ATSSPH-SF demonstrated strong test-retest reliability over a period of four weeks (r = .80) (Fischer & Farina, 1995).
Elhai, Schweinle, and Anderson (2008) examine the psychometric property of ATSPPH-SF by examining its construct validity and internal consistency. However, contrary to the findings of Fischer and Farina (1995), Elhai and colleagues found that this measurement possess two factors. Elhai and colleague found significant correlation between the ATSPPH-SF with participants’ intention to seek help \(r = .24, p < .001\) and stigma concerns \(r = -.44, p < .001\), providing support for ATSPPH-SF construct validity. Internal consistency of the ATTSPPH-SF was found to be at an acceptable range (Cronbach \(\alpha = .77\)).

Chang (2007) conducted a factor analysis with varimax rotation of the ATSPPH-SF with Chinese college students to test for its validity. Chang’s result yielded a two factor solution which accounted for 43.86% of the variance. This two factor finding was consistent with the results of Elhai and colleagues (2008). Chang named the two factors as ‘Approach’ and ‘Avoidance’ respectively, to describe the preference of individuals to either seek counseling or avoid counseling. Despite the inconsistent factor solutions, individuals’ preference of either seeking or avoiding counseling is in line with Ajzen’s (1991) conception of attitude where people would form evaluations of a certain behavior. The ATSPPH-SF has been used with Chinese sample with acceptable alpha coefficient ranging from .72 - .75 (Chang, 2008; Chang, 2014).

Help-Seeking Propensity Subscale of IAMHS

Perceived behavioral control, operationally defined by the Help-Seeking Propensity subscale of IAMHS (Mackenzie, Knox, Gekoski, & MacCaulay, 2004). The IAMHS is a 24-item questionnaire designed to measure participants’ attitudinal variables which may influence seeking help from mental health professionals (Mackenzie et al., 2004). Mackenzie and colleagues created the IAMHS utilizing TPB as the theoretical foundation. The IAMHS consist
of three subscales and one of the subscales, the help-seeking propensity subscale, measures participants’ perceived behavioral control when seeking professional mental health services (Mackenzie et al., 2004). According to Mackenzie and colleagues, the help-seeking propensity subscale measures “the extent to which individuals believe they are willing and able to seek professional psychological help.” (p. 2420).

The help-seeking propensity subscale consist of eight items rated on a 5-point Likert scale (0 = disagree to 4 = agree) (see Appendix K). Example of items include “If I were to experience psychological problems, I could get professional help if I wanted to” and “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.” Participants’ responses are summed to yield a total score, where higher score indicates higher perceived behavioral control (Mackenzie et al., 2004).

Psychometric properties of the help-seeking propensity subscale has been decent with Cronbach α = .76 (Mackenzie et al., 2004). Further research on the psychometric properties of this scale was conducted by Hyland and colleagues (2015). Hyland and colleagues utilized composite reliability as a more stringent measurement to internal consistency than Cronbach alpha. A composite reliability score of .60 and above are considered acceptable (Diamantopoulos & Siguaw, 2000). Hyland and colleagues found that the help-seeking propensity subscale possess composite reliability of .76, indicating the subscale has good internal consistency.

Concurrent validity of the help-seeking propensity was examined utilizing structural equation modelling techniques (Hyland et al., 2015). Hyland and colleagues (2015) found that help-seeking propensity was a moderately strong predictor of help-seeing intention ($\beta = .51$, $p < .001$). This result provides some support for the validity of this subscale. Additionally, this
measurement was found to possess acceptable internal validity when used with Chinese Canadian with Cronbach $\alpha = .67$ (Lee, 2016).

Self-Stigma for Seeking Psychological Help (SSOSH)

Self-stigma, operationally defined using the Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, & Haake, 2006). The SSOSH is 10-item questionnaire designed to measure participants’ feelings of internalized stigmatization associated with seeking mental health services (see Appendix L). Items are rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Example of items include “I would feel inadequate if I went to a therapist for psychological help” and “If I went to a therapist, I would be less satisfied with myself”. The SSOSH has been found to be unidimensional in nature based on results from a confirmatory factor analysis. Reverse scoring are done for items 2, 4, 5, 7, and 9. Participants’ responses are summed to yield a total score, where higher score indicates higher levels of self-stigma.

The reliability for this scale was examined using the test-retest method and calculation of internal consistency. Vogel and colleague (2006) found that the test-retest reliability over a two-week period was $r = .72$. The internal consistency was found to be satisfactory with Cronbach $\alpha$ value ranging from .86 - .91. The SSOSH was also found to possess construct validity as it correlated significantly with attitudes towards seeking professional help ($r = -.63, p < .001$), intentions to seek counseling ($r = -.38, p < .001$), and social stigma for seeking psychological help ($r = .48, p < .001$). (Vogel, Wade, & Haake, 2006).

In an attempt to establish cross-cultural validity of the SSOSH, Vogel and colleagues (2013) examined the cross-cultural invariance of the instrument across six countries, including Taiwan. Among other things, Vogel and colleagues found that the one-factor structure was consistently found across all six countries. Additionally, internal consistencies was between .77 -
.89 for all six countries. These results support the appropriateness of using SSOSH cross-
culturally (Vogel et al., 2013).

Mental Health Knowledge Questionnaire (MHKQ)

Mental health literacy, operationally defined using the Mental Health Knowledge
Questionnaire (MHKQ; Wang et al., 2013). The MHKQ is a 20-item instrument designed to
measure individuals’ general knowledge of mental health issues (Wang et al., 2013). Participants
are required to respond to a series of items with yes/no response. An example of item is “Mental
disorders and psychological problems cannot be prevented”. A point is provided for each correct
response and the maximum score is 20. Participants’ score is summed to yield a total score,
where higher scores indicate higher mental health literacy (Wang et al., 2013).

Internal consistency for the MHKQ has been found to be acceptable with Cronbach α
values ranging from .69 - .73. Exploratory factor analysis yielded inconsistent results, where
three factors were found by Yu and colleagues (2015), four factors were found by Zhong and
colleagues (2011) but five factors were found by Wang and colleague (2013). This inconsistency
of results could be due to the different methods of extraction being conducted in addition to
mental health literacy being a multifaceted construct. However, the number of factors are of
minimal importance to this study as the total score will be used as the indicator of mental health
literacy. Moreover, the MHKQ was designed by the Chinese Ministry of Health, which may
provide greater validity of mental health literacy measurement when administered to Chinese
population. A summary of TPB variables with corresponding measurements are presented in
Table B.2.
Table B.2

*TPB Variables and Corresponding Instruments used in this Study*

<table>
<thead>
<tr>
<th>TPB variables</th>
<th>Definition</th>
<th>Instrument</th>
</tr>
</thead>
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<tr>
<td>Intention</td>
<td>Help-seeking intention</td>
<td>Intentions to Seek Counseling Inventory (Cash, Begley, McCown, &amp; Weise, 1975)</td>
</tr>
<tr>
<td>Subjective norm</td>
<td>Public stigma</td>
<td>Perceptions of Stigmatization by Others for Seeking Psychological Help (PSOSH; Vogel, Wade, &amp; Ascheman, 2009)</td>
</tr>
<tr>
<td>Subjective norm</td>
<td>Loss of face</td>
<td>Loss of Face Scale (LOF; Zane &amp; Yeh, 2002)</td>
</tr>
<tr>
<td>Attitude</td>
<td>Help-seeking attitude</td>
<td>Attitudes Toward Seeking Professional Psychological Help Scale – Short Form (ATSPPH-SF; Fischer &amp; Farina, 1995).</td>
</tr>
<tr>
<td>Perceived behavioral control</td>
<td>Help-seeking PBC</td>
<td>Help-seeking propensity subscale of the Inventory of Attitudes Toward Seeking Mental Health Services (Mackenzie, Knox, Gekoski, &amp; MaCaulay, 2004)</td>
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<tr>
<td>Additional variable</td>
<td>Self-stigma</td>
<td>Self-Stigma for Seeking Psychological Help (SSOSH; Vogel, Wade, &amp; Haake, 2006)</td>
</tr>
<tr>
<td>Additional variable</td>
<td>Mental health literacy</td>
<td>Mental Health Knowledge Questionnaire (Wang et al., 2013)</td>
</tr>
</tbody>
</table>

Procedure

After obtaining approval from University of North Texas’ Institutional Review Board (IRB) for Human Subjects, I recruited participants via purposive, snowball, and convenience sampling. I searched online for local Chinese community centers, Chinese organizations, and churches. I sent an email to leaders of organizations (see Appendix N) to explain the purpose of this study and requested permission to recruit participants. The email also contained a link to Qualtrics where participants can participate in the study. Apart from approaching community leaders via email, I offered to meet face-to-face with leaders from a large metropolitan area in the southwest United States to further support and answer any questions regarding the study.

Additionally, I recruited Chinese individuals through personal connection. I requested these Chinese individuals to further recruit from their friends or family, thus conducting
snowball sampling. Recruitment were also be conducted via Facebook pages to increase the pool of participants (see Appendix O). All participants who were interested to participate were provided a Qualtrics link to complete the survey. Participants were given an opportunity to be entered into a raffles draw to win an iPad Air 2 by providing their email address after completing the survey. I did not foresee any harm to participants who completed the study and participants may choose to discontinue the study if they so wish. To protect participants’ identity, participants’ responses were kept confidential and only aggregate data were reported. No identifying information from participants were revealed.
APPENDIX C

UNABRIDGED RESULTS
Preliminary Analyses and Descriptive Statistics

A total of 299 participants participated in this current study. Participants’ responses were entered into the Statistical Package for Social Sciences (SPSS) software program. Following Tabachnick and Fidell’s (2007) recommendation, data set was screened for missing data. Participants’ responses with missing data were excluded from analysis. This screening resulted in 48 participants (16%) being excluded from further analysis due to substantial amounts of missing data. The final sample consisted of 251 participants.

Next, the data set was screened to determine whether the assumption of normality was met. To assess for univariate normality, the skewness and kurtosis for each measurement was examined. Values approaching 0 for both the skewness and kurtosis would indicate univariate normality. Based on the results, all the measurements have met the assumption of univariate normality as the skew and kurtosis value did not exceed 2.0 (George & Mallery, 2010). In addition to univariate normality, the data was screen for multivariate normality, as it is the underlying assumption of the maximum likelihood procedure utilized in path analysis (Yakunina, 2012). Multivariate normality can be checked by plotting Mahalanobis distance against chi square value (Burdenski, 2000; Henson, 1999). Figure C.1 provides a visual graphic of the results when Mahalanobis distance is plotted against chi square value. Multivariate normality can be assumed to be satisfied as the scatterplot approximate a straight line (Burdenski, 2000; Henson, 1999). The descriptive statistics of each variable are calculated and presented in Table C.1.
Figure C.1. Mahalanobis distance plotted against chi square value.

Table C.1

Descriptive Statistics for Each Measurement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>Std. Error</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
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<tbody>
<tr>
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<td>39.40</td>
<td>11.18</td>
<td>.71</td>
<td>.159</td>
<td>-.122</td>
<td>.92</td>
</tr>
<tr>
<td>LOF</td>
<td>28 – 147</td>
<td>93.53</td>
<td>18.63</td>
<td>1.18</td>
<td>-.102</td>
<td>.791</td>
<td>.88</td>
</tr>
<tr>
<td>ATSPPH-SF</td>
<td>4 – 28</td>
<td>16.03</td>
<td>4.72</td>
<td>.30</td>
<td>.168</td>
<td>-.241</td>
<td>.69</td>
</tr>
<tr>
<td>Propensity</td>
<td>4 – 32</td>
<td>22.47</td>
<td>6.08</td>
<td>.38</td>
<td>-.456</td>
<td>-.194</td>
<td>.82</td>
</tr>
<tr>
<td>SSOSH</td>
<td>10 – 39</td>
<td>23.15</td>
<td>6.76</td>
<td>.43</td>
<td>-.158</td>
<td>-.942</td>
<td>.82</td>
</tr>
<tr>
<td>MHKQ</td>
<td>6 – 19</td>
<td>14.14</td>
<td>2.49</td>
<td>.16</td>
<td>-.693</td>
<td>.705</td>
<td>.53</td>
</tr>
</tbody>
</table>
Homoscedasticity can be tested by plotting a scatterplot. Homoscedasticity is assumed to be met if the distance between data and fit line remains consistent. Figure C.2 provides a visual of the scatterplot. As can be seen from the scatterplot, the distance between data and fit line remained consistent throughout the graph. Thus, the assumption of homoscedasticity was met.

Figure C.2. Scatterplot depicting homoscedasticity

Validity and Reliability of the Measurement Model

Following the recommendation by Weston and Gore (2006), the measurements utilized in this study need to be examined for reliability and validity before conducting path analysis. To examine for reliability, internal consistency was calculated and alpha coefficient was reported. Confirmatory factor analysis (CFA) was conducted for each measurement to evaluate the validity of measurement model. CFA was conducted utilizing Analysis of a Moment Structures (AMOS)
and measurement model was evaluated using four fit indices: chi-square, root mean square of approximation (RMSEA), standardized root mean square residual (SRMR), and the comparative fit index (CFI). Reporting of different fit indices is necessary as each fit index reflect different aspects of model fit (Crowley & Fan, 1997). A few scholars (e.g. Hooper, Coughlan, & Mullen, 2008; Hu & Bentler, 1999) have provided guidelines in evaluating model fit. Table C.2 depicts the acceptable cut off scores for each fit index. Although chi square value is included in the reporting, it has been severely criticized for its sensitivity to sample size. Chi square statistics almost always reject the null hypothesis when sample size is large (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993).

Table C.2

Guidelines for Determining Model Fit

<table>
<thead>
<tr>
<th>Fit index</th>
<th>Acceptable fit</th>
<th>Good fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi square</td>
<td>$p &gt; .05$</td>
<td>$p &gt; .05$</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.08 - .10</td>
<td>&lt; .07</td>
</tr>
<tr>
<td>SRMR</td>
<td>&lt; .08</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>CFI</td>
<td>&gt; .90</td>
<td>&gt; .95</td>
</tr>
</tbody>
</table>

Intention to Seek Counseling Inventory (ISCI)

The ISCI (Cash, Begley, McCown, & Weise, 1975) is a 17-item measurement designed to assess participants’ intention to seek counseling for various mental health issues. Alpha coefficient of the whole scale was found to be excellent with alpha coefficient of .92, indicating that the measurement is internally consistent. Previous research on this measurement yielded three factors (Cepeda-Benito & Short, 1998). A CFA was conducted with this three factors and
the results of CFA with 17-items revealed that the data does not fit with previous findings, $\chi^2 (116) = 506.36, p < .001$, RMSEA = .12, SRMR = .84, and CFI = .83. To increase model fit, Hooper and colleagues (2008) suggested deleting items that has low factor coefficient. Items were deleted one at a time and CFA was conducted after every item deletion to examine for model fit. This process was repeated until a satisfactory model fit was achieved. Following this process, items 1, 5, and 10 were deleted due to low factor coefficient. The final measurement consist of 14-items and this data fit the model modestly well with $\chi^2 (74) = 268.78, p < .001$, RMSEA = .103, SRMR = .067, and CFI = .898.

Perception of Stigmatization by Others for Seeking Psychological Help Scale (PSOSH)

Public stigma, operationally defined using the Perception of Stigmatization by Others for Seeking Psychological Help Scale (PSOSH; Vogel, Wade, & Ascheman, 2009). The PSOSH is a 5-item unidimensional questionnaire designed to measure participants’ public stigma of help-seeking. Unfortunately, the researcher realized that Qualtrics only recorded four responses instead of five responses. Due to missing data, the reliability and validity of this scale cannot be performed. Therefore, this measurement was eliminated from further analysis due to inability to validate the measurement’s validity and reliability.

Loss of Face Scale (LOF)

Loss of face, operationally defined using the Loss of Face Scale (LOF; Zane & Yeh, 2002). The LOF is a unidimensional questionnaire consisting of 21-items. Alpha coefficient of the whole scale was found to be good with alpha coefficient of .88, indicating that the measurement is internally consistent. The CFA revealed that the data fit the model decently with $\chi^2 (189) = 471.28, p < .001$, RMSEA = .077, SRMR = .068, CFI = .805. Although the model fit appeared to be modest, there were items with low factor coefficient, where the indicators had
little influence in measuring the latent variable. Items which had $r^2$ lower than .20 should be deleted (Hooper et al., 2008). Following this recommendation, items 1, 17, 20, and 21 were deleted due to their low factor coefficient and $r^2$. The final model consist of 17 items with marginally better fit $\chi^2 (119) = 310.75, p < .001$, RMSEA = .08, SRMR = .063, CFI = .844.

Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH–SF)

The ATSPPH-SF (Fischer & Farina, 1995) is a 10-item questionnaire designed to measure participants’ attitudes towards counseling. Alpha coefficient of the whole scale was found to be modest with alpha coefficient of .69. In previous research conducted by Elhai and colleagues (2008), ATSPPH-SF has been found to possess two factors. Confirmatory factor analysis with these two factors revealed that the data has decent model fit with $\chi^2 (34) = 66.74, p < .001$, RMSEA = .062, SRMR = .054, CFI = .93. Examination of items revealed that item 1 has extremely low factor coefficient of .09 and low $r^2 = .01$. Thus, item 1 was deleted and CFA was conducted again. The CFA with item 1 deleted had excellent model fit with $\chi^2 (26) = 47.79, p = .006$, RMSEA = .058, SRMR = .051, CFI = .952.

Help-Seeking Propensity Subscale of IASMHS

Perceived behavioral control, operationally defined by the Help-Seeking Propensity subscale of IASMHS (Mackenzie, Knox, Gekoski, & MacCaulay, 2004). The Help-Seeking Propensity subscale consist of 8 items intended to measure participants’ perceived behavioral control when seeking professional mental health services (Mackenzie et al., 2004). Alpha coefficient of the whole scale was found to be acceptable with alpha coefficient of .82, indicating that the measurement is internally consistent. Confirmatory factor analysis revealed that the data had a marginal model fit with $\chi^2 (20) = 92.57, p < .001$, RMSEA = .12, SRMR = .069, CFI = .87.
Examination of items depicted modest factor coefficient with the lowest factor coefficient of .51. Therefore, no items were deleted even though the model fit was mediocre.

Self-Stigma for Seeking Psychological Help (SSOSH)

The SSOSH (Vogel, Wade, & Haake, 2006) is a 10-item questionnaire designed to measure participants’ feelings of internalized stigmatization associated with seeking mental health services. Alpha coefficient of the whole scale was found to be acceptable with alpha coefficient of .82, indicating that the measurement is internally consistent. This questionnaire has been found to possess a unidimensional factor (Vogel et al., 2006; Vogel et al., 2013). Confirmatory factor analysis revealed that the data does not fit the model well with $\chi^2$ (35) = 176.25, $p < .001$, RMSEA = .13, SRMR = .095, CFI = .84. Examination of factor coefficient revealed that a few items possessed low factor coefficient. Items 2, 4, and 5 were deleted and CFA was re-conducted. The 7 item data yielded a better model fit with $\chi^2$ (14) = 64.42, $p < .000$, RMSEA = .12, SRMR = .061, CFI = .93.

Mental Health Knowledge Questionnaire (MHKQ)

The MHKQ (Wang et al., 2013) is a 20-item instrument designed to measure individuals’ general knowledge of mental health issues (Wang et al., 2013). Alpha coefficient of the whole scale was found to be low with alpha coefficient of .53, indicating that the measurement has poor internally consistency. Factor structure for this measurement has been inconsistent with four factors (Peng, Wang, Li, & Liu, 2011, Zhong et al., 2011) and five factors (Wang et al., 2013). More recently, Yu and colleagues (2015) found three factors for this measurement. Due to the parsimonious factors found by Yu and colleagues (2015), a confirmatory factor analysis with three factors was conducted. Confirmatory factor analysis with three factors revealed that the data had acceptable model fit with $\chi^2$ (167) = 290.94, $p < .001$, RMSEA = .054, SRMR = .076,
CFI = .829. Checking for factor coefficient, item 2 was found to possess low factor coefficient. Item 2 was therefore eliminated and the data had an improved model fit with $\chi^2 (149) = 221.21, p < .001$, RMSEA = .044, SRMR = .065, CFI = .89.

Validating the Path Model

After completing preliminary analysis and validating the measurement model, the path analysis can be conducted to validate the hypothesized path model. Although the measurement PSOSH was eliminated from the path model, the integrity of the theory of planned behavior was not affected as subjective norm was measured by the Loss of Face scale. The new path model is depicted in Figure C.3.

![Figure C.3. Modified hypothesized path model. Solid lines represents positive prediction whereas dotted lines represent negative prediction](image-url)
The correlation matrix of the variables involved in this study is shown in Table C.3. Results indicated that help-seeking intention (ISCI) was significantly correlated with help-seeking attitude (ATSPPH-SF) and perceived behavioral control (help-seeking propensity). Subjective norm, (LOF), self-stigma (SSOSH), and mental health knowledge (MHKQ) was not statistically significantly correlated with help-seeking intention (ISCI).

Table C.3

Correlation Matrix of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>ISCI</th>
<th>LOF</th>
<th>ATSPPH-SF</th>
<th>Propensity</th>
<th>SSOSH</th>
<th>MHKQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCI</td>
<td>-</td>
<td>.082</td>
<td>.352***</td>
<td>.354***</td>
<td>-.011</td>
<td>-.021</td>
</tr>
<tr>
<td>LOF</td>
<td>-</td>
<td>.024</td>
<td>.50</td>
<td>.224***</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>ATSPPH-SF</td>
<td>-</td>
<td></td>
<td>.593***</td>
<td>-.421***</td>
<td>.283***</td>
<td></td>
</tr>
<tr>
<td>Propensity</td>
<td>-</td>
<td></td>
<td></td>
<td>-.269***</td>
<td>.185**</td>
<td></td>
</tr>
<tr>
<td>SSOSH</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.323***</td>
</tr>
<tr>
<td>MHKQ</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < .01  ***p < .001

I tested the hypothesized path model by conducting a path analysis. Path analysis conducted using AMOS yielded extremely poor model fit with \( \chi^2 (8) = 220.53, p < .001, \) RMSEA = .318, SRMR = .208, CFI = .187. Results indicated that help-seeking attitude had a statistically significant effect on help-seeking intention, \( r = .30, p < .001. \) Help-seeking propensity was also found to predict help-seeking intention with \( r = .23, p < .001. \) Lastly, self-stigma was found to predict help-seeking intention with \( r = .14, p = .017. \) The total variance accounted for help-seeking intention was 18%. Result of the path model is depicted in Figure C.4.
The modification indices suggested that the addition of a covariance between loss of face and self-stigma would improve model fit. This suggestion made sense as loss of face has been found to be associated with self-stigma (Cheang & Davis, 2014). Therefore, an individual who has high fear of losing face may have higher self-stigma for seeking help. Additionally, the modification indices suggested that model fit may be improved by adding a covariance between e1 and e3. Adding a covariance between error terms are typically not encouraged except in instances with strong theoretical rationale (Hooper et al., 2008). In this case, the suggestion to
Covary e1 and e3 made sense as the help-seeking propensity subscale was created based on the original ATSPPH scale (MacKenzie et al., 2004).

Covariance was therefore added between loss of face and self-stigma as well as between e1 and e3. The result from model fit indices after the addition of two covariance were $\chi^2 (6) = 89.73, p < .001$, RMSEA = .236, SRMR = .157, CFI = .664. Although there was improvement in model fit, the fit indices still reflect poor model fit. This result indicated that the hypothesized model was untenable, suggesting that the theory may not be a good fit.

Post-hoc Analysis

The hypothesized model in this study was put together based on the theory of planned behavior (Ajzen, 1991). In addition, two additional variables, self-stigma and knowledge, were added based on previous research that these two variables had an effect on help-seeking intention (Komiya, Good, & Sherrod, 2000; Loo, Tong, & True, 1989). However, results indicated that the model was not a good fit. One of the main reasons for poor model fit is due to model misspecification (Kline, 2011). Thus, a few post-hoc analysis were conducted to determine if such misspecification affected the model fit.

The first modification was the removal of the two additional variables, self-stigma and mental health knowledge. With the removal of these two variables, the model was similar to the partial mediation model used by Mo and Mak (2009) and Mak and Davis (2014). Results indicated poor model fit with $\chi^2 (1) = 107.96, p < .001$, RMSEA = .654, SRMR = .195, CFI = .27. Similar to the full hypothesized model, help-seeking attitude significantly predict help-seeking intention with $r = .23$, $p < .001$. Help-seeking propensity also significantly predict help-seeking intention with $r = .23$, $p < .001$ (Figure C.5).
Figure C.5. Result of partial mediation model path analysis

The poor model fit indicated that the partial mediation model does not explain the data well. Therefore, another post-hoc analysis was conducted to examine Ajzen’s (1991) original model. The model fit indices was poor, with $\chi^2 (3) = 108.73, p < .001$, RMSEA = .375, SRMR = .197, CFI = .28. The modification indices suggested that help-seeking attitude and help-seeking propensity be covaried with each other. As the help-seeking propensity subscale was derived from the ATSPPH, this recommendation made sense. The final model fit with the addition of covariance was excellent with $\chi^2 (2) = .624, p = .734$, RMSEA = .00, SRMR = .018, CFI = 1.00 (Figure C.6).
Figure C.6. Result of Ajzen’s (1991) TPB model
APPENDIX D

EXTENDED DISCUSSION
Structural Model

Ajzen (1991) postulated that three components predict individuals’ behavioral intention: attitude, subjective norm, and perceived behavioral control. Attitude is defined as people’s evaluation of the behavior, resulting in either favorable or unfavorable appraisal (Ajzen, 1991). Typically, positive attitude would indicate greater intention to conduct a certain behavior. Subjective norm is defined as individuals’ perception of social pressure to perform the behavior (Ajzen, 1991). Typically, higher levels of subjective norms would indicate higher likelihood of performing certain behavior. Perceived behavioral control is defined as people’s perception of how easy or difficult it would be to conduct the behavior of interest (Ajzen, 1991). Generally, higher levels of perceived behavioral control would indicate higher likelihood of conducting certain behavior. In this study, two additional variables, self-stigma and mental health literacy were added as predictors of help-seeking intention.

Hypothesized Model

Path analysis of the hypothesized model revealed poor model fit. A bad fitting model could result from either violations of assumptions or misspecification (Kline, 2011). Because the assumptions for analysis were met, it is more likely that the poor fit was due to misspecification. One possible misspecification was due to the partial mediation model. The hypothesized model utilized the partial mediation model as its foundation and combined it with two additional variables, self-stigma and mental health knowledge. Perhaps attitude and perceived behavioral control do not partially mediate the relationship between subjective norm and intention. This misspecification may have led to the poor model fit results.

Apart from the issue with the partial mediation model, there could have been other misspecification in the hypothesized model. Ajzen (2016) recommended adding additional
variables only when the variables are independent of existing predictors. In this case, perhaps mental health knowledge has an indirect effect on help-seeking intention rather than a direct effect. Previous research has found that higher levels of mental health knowledge leads to lower stigma associated with seeking psychological help (Corrigan & Watson, 2003; Henderson, et al., 2013; Rüsch et al., 2011). Therefore, it can be postulated that mental health knowledge could augment individuals’ attitude towards help-seeking by lowering their stigma of help seeking. It could be that the relationship between mental health knowledge and help-seeking intention is mediated by help-seeking attitude.

Lastly, there could be misspecification with the relationship between self-stigma and help-seeking intention. Similar to mental health literacy, self-stigma may have an indirect relationship to help-seeking intention. Komiya and colleague (2000) found that help-seeking attitude mediate the relationship between self-stigma and help-seeking intention. The higher the levels of mental health stigma, the worse one’s attitude is towards seeking help, resulting in lower help-seeking intention.

Partial Mediated Model

Results showed that the model fit for the partial mediated model was poor, contrary to the findings of previous research with Chinese samples (Mak & Davis, 2014; Mo & Mak, 2009). Both of the aforementioned research were conducted in Hong Kong (Mo & Mak, 2009) and Macao (Mak & Davis, 2014) respectively. Due to the strong collectivistic culture of Chinese community, subjective norms was found to have strong effects on attitude and perceived behavioral control. However, for Chinese individuals in the United States, it appears that attitude and perceive behavioral control do not mediate the relationship between subjective norm and help-seeking intention. Perhaps Chinese individuals residing in the United States, having learned
ways to be more individualistic, are less constrained by subjective norm when seeking psychological help. Admittedly, this research is probably the first to examine the partial mediation model with Chinese individuals residing in the United States. More research would be needed to confirm the finding of this study.

Ajzen’s Original Model

Results from the path analysis indicated that Ajzen’s (1991) original theory produced the best model fit, indicating that the theory of planned behavior can be used to predict Chinese individuals’ help-seeking intention. Although Ajzen’s original theory was found to have excellent fit, the three predictors only explained 16% of help-seeking intention, which is much lower than the findings from previous researchers (e.g. Mak & Davis, 2014; Mo & Mak, 2009, Smith et al., 2008). When examining the regression coefficient, only help-seeking attitude ($r = .22, p < .001$) and perceived behavioral ($r = .22, p < .001$) control contributed to explaining the variance of help-seeking intention. Subjective norm, measured by the Loss of Face scale, contributed almost nothing ($r = .07, p > .05$) to the variance of help-seeking intention.

One of the possible reasons for this finding could be due to the measurement used to measure subjective norm: the Loss of Face Scale (Zane & Yeh, 2002). When factor analyzed, Zane and Yeh (2002) found that the 21 items on the scale yielded one factor that explained only 26% of the variance. This result indicated that the items on the scale may be inadequate at capturing the latent concept of loss of face. Thus, the latent construct of loss of face may be poorly measured and consequently failed to provide reliable prediction on help-seeking intention.

The low variance explained for help-seeking intention could also be due to the minimal suitability of the measurement used to measure help-seeking intention. Initially developed to measure college students’ help-seeking intention, the Intentions to Seek Counseling Inventory
(Cash et al., 1975) has been found to possess three factors, one of them being academic problems
(Cepeda-Benito & Short, 1998). This measurement may not be ideal for this current sample as a
majority of participants (57.8%) indicated they are not currently a student. As such, participants
may find little relevance in seeking help related to the academic problem subscale, therefore
deflating the total scores, resulting in less than accurate reflection of participants’ help-seeking
intentions.

Measurement Model

Apart from misspecification, another reason for poor model fit is the use of
measurements with poor psychometric properties (Kline, 2011). All the measurements chosen
for this study have been found to possess decent psychometric properties in previous studies.
However, as the confirmatory factor analysis revealed, certain measurements used in this study
possessed less than optimal psychometric properties. Reasons for such a finding is further
discussed in this section.

The psychometric properties of the Mental Health Knowledge Questionnaire (Wang et
al., 2013) was one of the most questionable. The MHKQ was initially selected to measure
participants’ mental health knowledge as it has been found to possess acceptable alpha
coefficient ranging from .69 - .73 (Wang et al., 2013). Additionally, this questionnaire was
designed by the Chinese Ministry of Health, which could have helped with the validity when
used on Chinese individuals. In this study, the MHKQ was found to have low alpha coefficient
of .53, which indicated low internal consistency. A low internal consistency suggested that the
items on the MHKQ may not be measuring the same latent variable. Additionally, the subscales
of the MHKQ have also been inconsistent with researches having found three (Yu et al., 2015),
four (Peng et al., 2011; Zhong et al., 2011), and five (Wang et al., 2013) factors. This
inconsistent findings of the number of subscales, coupled with the low alpha coefficient suggest that the measurement may suffer from poor psychometric properties as it failed to provide reliable results across studies. Perhaps there might be differences between Chinese individuals in China and Chinese individuals residing in the United States which contributed to the differences in findings. A cross-cultural analysis of this questionnaire will be helpful in determining the cross-cultural validity of this measurement.

Aside from the MHKQ, the psychometric properties of the Loss of Face (Zane & Yeh, 2002) scale is also questionable. The LOF was initially selected as the internal consistency was found to be strong with alpha coefficient of .83 (Zane & Yeh, 2002). Additionally, when administered to Asian Americans and European Americans, Asian Americans scored significantly higher on the LOF, indicating some support for the higher levels of concern of loss of face within the Asian community (Zane & Yeh, 2002). However, in this study, conducting the confirmatory factor analysis resulted in marginal model fit, indicating the items had poor ability to capture the latent variable. Examination of the items consistently revealed low factor coefficient, suggesting that the items do not reflect or contribute to the latent construct. Indeed, Zane and Yeh (2002) reported that the 21 items only explained 26% of the variance of loss of face. This finding brings into question the validity of this measurement as the items failed to capture even a third of the variance of the latent variable. It is recommended that the structure validity of this questionnaire be examined, with possibly fewer items, if the items only capture one latent variable.

Additionally, the applicability of the Intention to Seek Counseling Inventory (Cash et al., 1975) needs to be further examined. In this study, the ISCI was found to possess decent psychometric properties with alpha coefficient of .92. Moreover, the factor structure revealed
modest fit, indicating that the three factor structure was tenable. However, the applicability of this questionnaire to the general public may be called into question as one of the subscales addresses academic problems. Non-student participants may score lower on their help-seeking intention because of the inapplicability of the items, rather than their lower willingness to seek help, resulting in inaccurate measurement of help-seeking intention.

In this study, help-seeking attitude, which was operationally defined using the Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPH-SF; Fisher & Farina, 1995), was found to possess excellent model fit, indicating strong structure validity. Additionally, perceived behavioral control, which was operationally defined by the Help-Seeking Propensity subscale of the IASMSH (Mackenzie et al., 2004), was also found to possess modest model fit. Both these measurements were found to be a statistically significant predictors of help-seeking intention with the regression coefficient for both variables being .22 ($p < .001$)

**Strengths**

This study is the first attempt to understand the help-seeking process of seeking mental health services for Chinese individuals living in the United States utilizing a path model. Previous research focused on factors that deters Chinese from seeking help (e.g. Chang, 2008; Chang, 2014; Chang & Chang, 2004; Kung, 2004) but this study considered these different factors simultaneously within a path model to provide a holistic picture of the help-seeking process. Moreover, the incorporation of the theory of planned behavior (Ajzen, 1991) provided a firm basis for linking help-seeking intention and help-seeking behavior. The theory of planned behavior has been supported to be an effective theory in predicting human behavior (Conner & Armitage, 2001), which provides a foundation to create an effective intervention to increase Chinese help-seeking intention.
Additionally, established measurements in the literature were used in this study to provide more accurate measurement of latent variables. In comparison to other studies (e.g. Mak & Davis, 2014; Mo & Mak, 2009) that utilized self-created measurements, it can be argued that the results of this study provided a closer approximation to Chinese individuals’ help-seeking process, despite the low variance accounted for in help-seeking intention.

Another strength of this study is the representation of participants in terms of gender and country of origin. In regards to participants’ geographical location, most participants were from Texas, but there were sizable amounts of participants from different states. Such diverse representation of participants may have contributed to the normality and homoscedasticity of data, eliminating the need for any data transformation.

Limitations and Future Studies

Admittedly, this study has a few limitations worth addressing. The first limitation is the omission of Perception of Stigmatization by Others for Seeking Psychological Help Scale (Vogel et al., 2009). This measurement was initially included to serve as a second measurement for subjective norm. However, failure to record all five responses from participants resulted in the omission of this measurement from further analysis. This omission resulted in the inability to test the initial hypothesized model.

The use of Mental Health Knowledge Questionnaire as a measurement for mental health literacy was another limitation of this study. As discussed in the section above, the MHKQ was not found to have decent reliability and validity. Therefore, participants’ mental health literacy could not be accurately measured. This limitation was compounded by the fact that there are no standardized measurements to measure mental health literacy (Wei et al., 2015). Future research could develop a psychometrically sound measurement to assess participants’ mental health
literacy. Development of such scale would assist researchers wanting to conduct research in the area of mental health literacy and propel the field forward in better understanding the different facets of mental health knowledge.

Another limitation of this study was the use of the Loss of Face scale as measurement for subjective norm. As shown by the results, it appeared that the Loss of Face scale was unsuitable to serve as a measurement for subjective norm. Future researchers should deliberate carefully on best measurements to measure subjective norm. One possible recommendation would be to utilize the Perception of Stigmatization by Others for Seeking Psychological Help Scale (Vogel et al., 2009) as this inventory measures individuals’ pressure to not seek mental health services.

There were also limitations with specifications. It appears that mental health literacy and self-stigma has an indirect relationship, rather than direct relationship, with help-seeking intention. Previous research had found that help-seeking attitude mediate the relationship between the aforementioned variables (Komiya et al., 2000). In the future, researchers can try utilizing help-seeking attitude as a mediator variables, mediating the relationship between self-stigma and help-seeking intention, as well as between mental health literacy and help-seeking intention.

Although not necessarily a limitation, the utilization of Intentions to Seek Counseling Inventory (Cash et al., 1975) may be less appropriate for individuals who are not currently students in a college or university setting. As mentioned above, the ISCI consist of the Academic Concern subscale, which may be inapplicable for individuals out of college/university. Therefore, in future research, researchers can consider using only one of the subscales, the Psychological and Interpersonal Concerns subscale, as measurement for participants’ willingness
to seek help. This practice of using only one subscale is not unusual and has been conducted before by previous researchers (e.g. Shaffer et al., 2006; Vogel et al., 2007; Yakunina, 2012).

Next, although this research seemed to have good representation of Chinese individuals from diverse backgrounds, participants were recruited using convenience and snowball sampling. Data collected may be affected by participants’ self-selection bias where participants who are motivated chose to participate in this study. Therefore, results obtained in this study was limited in its generalizability to the entire Chinese population living in the United States. Future researchers may want to utilize different sampling methods to strengthen the generalizability of results to the population.

Finally, data collected were on the basis of participants’ self-report. Although the instruments chosen for this study have decent psychometric properties, participants may choose to respond in a favorable manner. Additionally, there were no validity checks embedded within the questionnaire, resulting in the difficulty to determine if participants were paying attention when completing the survey. Thus, the collected data may not accurately reflect participants’ help-seeking intention. To improve this limitation, future researchers may decide to embed a few validity checks to ascertain that participants were focused and concentrated on the questions when completing their survey.

Implications of Study

This research study confirms that the theory of planned behavior can predict Chinese individuals’ help-seeking intention, supporting the findings of previous research (Lee, 2016; Mak & Davis, 2014; Mo & Mak, 2009; Smith et al., 2008; Westerhof et al., 2008). Results of this study showed that help-seeking attitude ($r = .22, p < .001$) and perceived behavioral control ($r = .22, p < .001$) have significant predictive values on influencing individuals’ help-seeking
intention. Therefore, it can be argued that improving Chinese individuals’ help-seeking attitude and their perceived behavioral control would increase their help-seeking intention. Some attitudinal barriers that were previously identified include resolving problem on one’s own, believing that the problem would resolve itself, fear of social stigma, and skepticism of the helpfulness of mental health professionals (Blocher, 2011). Addressing such attitudinal issues may be key in increasing Chinese individuals’ help-seeking attitude.

For example, Taylor-Rodgers and Batterham (2014) examined if online psychoeducation would be effective in increasing Australians’ help-seeking attitude and intentions. Utilizing a randomized control trial, they provided online psychoeducation addressing anxiety, depression, and suicide, as well as challenging the stigmatizing beliefs regarding mental health concerns to participants in the experimental group. Taylor-Rodgers and Batterham (2014) found that participants’ help-seeking attitude and intention increased significantly after the online intervention. Similarly, Blocher (2011) found that outreach programs providing individuals with the benefits of counseling can increase participants’ attitude towards seeking mental health professional.

Aside from creating and implementing psychoeducation programs, counselors can also address Chinese clients’ attitudinal barriers when Chinese individuals choose to seek counseling. Research has shown that Asian individuals have higher rates of premature termination (Yakushko, Davisdon, & Sanford-Martens, 2008), possibly due to negative attitudes attached to seeking mental health professionals. To increase Chinese individuals’ attitude towards counseling, counselors can inquire clients about the stigma associated with counseling as well as explain the counseling process to clients. When teaching culturally responsive counseling,
counselor educators can emphasize the importance of addressing clients’ attitude towards seeking help, in an attempt to increase clients’ help-seeking intention.

Apart from attitude, perceived behavioral control \( (r = .22, p < .001) \) was also found to be a significant predictor for help-seeking intention. Looking at the help-seeking propensity measurement, some of the beliefs associated with perceived behavioral control include relative ease at finding professional help when needed and willingness to confide in a mental health professional. To increase Chinese individuals’ perceived behavioral control, mental health professionals can increase their advertisement to increase the awareness of availability of mental health resources. Additionally, outreach programs to increase acceptance of seeking help can be helpful too as Mak and Davis (2014) found that support from significant others strongly affect Chinese individuals’ perceived behavioral control when deciding to seek professional help. Therefore, educating Chinese individuals about the etiology of mental health and process of mental health services may be helpful in increasing their help-seeking propensity.

Additionally, Chinese individuals’ perceived behavioral control may be improved by mastery experience, social modeling, and social persuasion (Bandura, 1986; Mo & Mak, 2009). In this sense, counselors can provide encouragement to clients for seeking help, to enhance their mastery experience. To provide social modeling, counselors can share their own experiences of seeking mental health services. Such sharing may provide powerful social modeling and normalizing of help-seeking behavior. Lastly, to increase social persuasion, educating Chinese individuals about the etiology of mental health and process of help-seeking may be beneficial.

Conclusion

Chinese individuals, and the Asian population in general, have been found to underutilize mental health services (Abe-Kim et al., 2007; Kearney, et al., 2005; U.S. Department of Health
and Human Services, 2014). Although various barriers to help seeking behaviors among Asian populations have been identified (e.g. help-seeking attitude, stigma, mental health literacy etc.), there is paucity in the literature regarding the relationship between these barriers and help-seeking intention, especially for Chinese residing in the United States. The purpose of this study was to examine how different barriers simultaneously affect help seeking intention of Chinese individuals living in the United States by conducting a path analysis.

Utilizing the theory of planned behavior, this study found that Chinese individuals’ intention to seek counseling is influenced by their attitude ($r = .22, p = .001$) and perceived behavioral control ($r = .22, p < .001$). The third component of the theory of planned behavior, subjective norm, was not found to significantly predict help-seeking intention ($r = .07, p > .05$). Contrary to expectation, mental health literacy ($r = -.11, p > .05$) and self-stigma ($r = .14, p > .05$) did not significantly predict help-seeking intention.

Based on the results, intervention and outreach programs to increase Chinese individuals’ attitude and perceived behavioral control should be devised in an attempt to increase the help-seeking intention and behaviors of the Chinese community. Psychoeducational programs (Blocher, 2011; Taylor-Rodgers & Batterham, 2014) as well as counselors’ explanation of counseling process (Bandura, 1986; Mo & Mak, 2009) could help increase Chinese individuals’ help-seeking attitude and perceived behavioral control. With an increase in such programs, it is hoped that Chinese individuals will be more open and willing to seeking psychological help, thus decreasing the underutilization of mental health services and improving their overall mental health status.
APPENDIX E

INFORMED CONSENT
Informed Consent Notice

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Examining help-seeking intentions of Chinese individuals: A path analysis.

Student Investigator: Terence Yee, University of North Texas (UNT) Department of Counseling and Higher Education. Supervising Investigator: Dr. Peggy Ceballos

Purpose of the Study: You are being asked to participate in a research study which involves examining how different barriers to mental health services influence the help-seeking intention of Chinese individuals.

Eligibility: You need to be at least 18 years old, identify as Chinese, and you must able to read and understand English to participate in this study.

Study Procedures: You will be asked to complete a survey that will take about 30 minutes of your time.

Foreseeable Risks: No foreseeable risks are involved in this study other than minimal fatigue from the time that it takes to answer all questions.

Benefits to the Subjects or Others: This study is not expected to be of any direct benefit to you. However, your participation may help researchers understand Chinese individuals’ mental health help-seeking intention. Results from this study may be helpful in creating more targeted interventions to increase help-seeking intention among Chinese individuals. It is hoped that the quality of life can be improved by increasing Chinese individuals’ willingness to seek mental health services.

Compensation for Participants: You will be offered a chance to enter a raffles draw to win an iPad Air 2 as a result of completing the survey. If you desire to be entered into the raffles draw, you will be prompted for an email address at the end of the survey.
Procedures for Maintaining Confidentiality of Research Records: For completing this survey online, confidentiality will be maintained to the degree possible given the technology and practices used by the online survey company. Your participation in this online survey involves risks to confidentiality similar to a person’s everyday use of the internet. The confidentiality of your individual information will be maintained in any publications or presentations regarding this study and only non-identifiable data will be reported.

Questions about the Study: If you have any questions about the study, you may contact Terence Yee at TerenceYee@my.unt.edu or Dr. Peggy Ceballos at Peggy.Ceballos@unt.edu.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-4643 with any questions regarding the rights of research subjects.

Research Participants’ Rights: Your participation in the survey confirms that you have read all of the above and that you agree to all of the following:

- You understand the study as it is explained in this form and you have had an opportunity to contact Terence with any questions about the study. You have been informed of the possible benefits and the potential risks of the study.
- You are at least 18 years old, identify as Chinese, and able to read and understand English.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You understand you may print a copy of this form for your records.
APPENDIX F

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. If not born in the United States, how many years have you lived in the United States? ___
5. What is your religion (e.g. Taoist, Buddhist, Protestant, Catholic, Agnostic, Atheist)?
   __________________
   a. Taoist
   b. Buddhist
   c. Protestant
   d. Catholic
   e. Agnostic
   f. Atheist
   g. Other: ____________
6. What is your native language? _____________________________
   a. Mandarin
   b. Cantonese
   c. English
   d. Other: _____________
7. What other languages do you speak? ______________________
8. In which state do you currently live?
   a. California
   b. New York
c. Texas

d. Other: _____________

9. Have you ever seen a mental health professional (e.g. school counselor, counselor, social worker, psychologist, psychiatrist etc.) to get help for a personal or an emotional problem?
   a. Yes
   b. No (Skip to 11)

10. If you responded “Yes” to question 9, what kind of mental health professional did you see?
   a. School counselor
   b. Counselor
   c. Social worker
   d. Psychologist
   e. Psychiatrist
   f. Others (Please specify: _____________)

11. If you responded “No” to question 9, did you seek help from other sources? Please select all that apply.
   a. Family members
   b. Friends
   c. Religious leaders
   d. Others (e.g. herbalists, acupuncturists, etc. Please specify: _____________)
   e. I did not seek help
12. Select your highest level of educational attainment:
   a. Middle school
   b. High school
   c. Some college
   d. Bachelor’s degree
   e. Masters degree
   f. Doctoral degree
   g. Other: _____________

13. What is your immigrant generation (if applicable. E.g. first generation, second generation etc.)?
   a. First generation
   b. Second generation
   c. Third generation
   d. Other: _____________
APPENDIX G

RECRUITMENT LETTER TO ORGANIZATION LEADERS
Greetings,

My name is Terence Yee, and I am a doctoral student at the University of North Texas pursuing my PhD in Counseling. In partial fulfillment of my degree, I am conducting my dissertation on Chinese individuals’ help-seeking intentions.

Previous research has shown that Chinese individuals may experience mental health issues at similar rates as the general population. However, not many Chinese individuals utilize mental health resources that are available. Therefore, my intention in conducting this research is to gain a deeper understanding of the reasons that affect the help-seeking intentions of Chinese individuals with regards to addressing socio-emotional concerns. A greater understanding of Chinese individuals’ help-seeking intentions may guide mental health professionals to reduce stigma and increase help-seeking behavior, with the ultimate goal of increasing the quality of life.

I am humbly requesting permission to collect responses from people who frequent your organization. The only criteria for anyone to participate is that they are of Chinese ethnic background, age 18 and above, and are able to understand English (as the surveys are in English). The survey can be completed online or in paper format and will take approximately 30 minutes to complete. Responses will be completely anonymous. Participants will be entered into a raffle draw as an incentive for completing the survey. Although this research has no immediate benefit to your organization, it is my hope that the results from this research can be used to better improve the Chinese community’s quality of life as a whole. Your assistance in this research is greatly appreciated.

I can be contacted via email at terenceyee@my.unt.edu and would be glad to answer any questions or concerns regarding this research. You can also contact my major professor, Dr. Ceballos, at peggy.ceballos@unt.edu.

Looking forward to hear from you,
Terence Yee

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APPENDIX H

PARTICIPANT E-MAIL INVITATION
Greetings,

My name is Terence Yee and I am a doctoral student from the University of North Texas. I would like to invite you to participate in my dissertation research, which examines Chinese individuals’ help-seeking intention towards mental health services. To be eligible to participate, you need to be at least 18 years old, identify as Chinese, and able to read and understand English.

If you choose to participate, you will complete a 20 – 30 minute survey. At the end of your participation, you will have the option to provide your e-mail address if you want to be entered into a raffle draw for a chance to win an iPad Air 2. The information you provide will be kept confidential and your email will not be associated with your responses to the survey.

If you like to participate in this study, please click on the web link provided below. It will direct you to the online survey developed for the purpose of this study.

If you have any questions, please do not hesitate to contact the primary researcher, Terence Yee, at terenceyee@my.unt.edu. You can also contact the faculty researcher, Dr. Peggy Ceballos, at peggy.ceballos@unt.edu.

Thank you in advance for your time!
COMPREHENSIVE REFERENCE LIST


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