

Help-Seeking Models for
Asian International and American Students

by

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ABSTRACT

The relation of stigma to help-seeking attitudes and intentions and how these relations differed across cultures for American students, East Asian, and South Asian international students, were the focus of this study. Previous researchers had found that not seeking professional psychological help when needed was prevalent for both American and international students. Stigma has been found to be a salient factor in influencing attitudes of individuals and may prevent individuals from getting the help they need. Both public and self-stigma were utilized to predict attitudes and intentions to seek psychological help in a sample of 806 students. Structural equation modeling analyses were conducted to assess the relationships in how self-stigma, public stigma, attitudes toward counseling and intentions to seek counseling will interplay for American, East Asian and South Asian international students, further expanding on previous help-seeking model (Vogel et al., 2007). Results indicated differences in factor structure of scales for the groups, and new factors were identified. With the new factors derived, different models of help-seeking intentions were established for each group, and distinct relations among the factors were explained. Furthermore, implications for future studies and clinical relevance were highlighted.

DEDICATION

To my mother, sister, and all the beautiful people who has supported me in my journey.

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CHAPTER 1

INTRODUCTION

College life can be a challenging transition for many students in the U.S. and for international students. In fact, the prevalence of mental health difficulties is a growing concern among college students (Korn & Chen, 2015; Novotney, 2014; “College”, 2013; Heppner, Kivlighan, God, Roehke, Hills, et al., 1994; Hayes, 1997). Counseling can only help those who seek it out (Shaffer, Vogel, & Wei, 2006). Yet, Andrew, Issakidis, and Carter (2001) commented about how individuals never sought psychological help even though previous research has found it beneficial for interpersonal and psychological concerns. On the contrary, doing so may bring about fear, embarrassment, and apprehension from the help-seekers (Kushner & Sher, 1989). Furthermore, even though there have been increased supports for counseling services available for college students, students who are struggling tend not to utilize these resources or seek professional help for their problems.

Researchers have explored factors that may inhibit an individual from seeking psychological help in prior studies and have identified different factors such as self-concealment, psychological distress, social support, anticipated risks and benefits, self-disclosure, self-stigma, public stigma, treatment fears, or the avoidance of experiencing negative feelings from painful experiences (Cramer, 1999; Vogel & Wester, 2003; Komiya, Good, & Sherrod, 2000; Vogel, Wester, Wei, & Boysen, 2005; Shaffer, Vogel, & Wei, 2006; Vogel, Wester, & Larson, 2007; Eisenberg, Downs, Golberstein, & Zivin, 2009; Nam, Choi, Lee, Lee, & Kim, et al. 2013). Even though these different factors help to explain why individuals may not be utilizing mental health services, Corrigan

(2004) found that stigma was the most cited reason that inhibits individuals from seeking psychological treatment. Hence, in the current study, I would extend Vogel's et al.

(2007) help-seeking model that focuses on stigma and explore how help-seeking attitudes and intentions to seek professional psychological help in college students and assess how the hypothesized model may be generalized to both American and Asian international students.

Challenges Encountered by Students

Corrigan (2004) noted that many individuals with mental illness never sought treatment or that individuals may start treatment yet failed to follow through on their services prescribed. This is particularly concerning with college students because according to Kessler, Berglund, Bruce, and Kock, et al. (2005), approximately three-quarters of lifetime mental disorders have first onset by age 24. Additionally, college life tends to be a challenging transitional period for many individuals because of both environmental and developmental demands that individuals have to cope with. These concerns may include moving away geographically, managing their independence, coping with academic challenges, managing their time, establishing new relationships, developing one's identity, and vocational concerns (Heppner et al., 1994; Yarris, 1996). Hayes (1997) found that depression, somatization, hostility, social comfort, obsessive-compulsivity, and phobic anxiety were presenting symptoms of college students who sought counseling. More recently, in a survey of college counseling center directors surveyed, anxiety, depression, followed by relationships problems are primary presenting concerns among college students ("College", 2013).

Some researchers had also found how utilization of mental health services might differ for different ethnic groups. Tracey, Leong, and Glidden (1986) compared help-seeking and problem perception in counseling center clients and noted that Caucasian clients were more likely to admit to personal or emotional concerns, whereas Asian-American clients were more likely to have educational or vocational concerns.

According to the Substance Abuse and Mental Health Services Administration (2015), African American, Hispanic and Asian groups in the U.S. are less likely to seek services for mental health problems as compared to other ethnic groups. Thus, despite the many challenges and mental health issues often encountered by the diverse college students in the U.S., there is a tendency to underutilize mental health resources.

Not seeking professional psychological help when needed is not only prevalent for American students, it is also a concern for international students. It is especially more of a concern because the enrollment of international students in the United States has been growing because more foreign students pursue higher education in American colleges and universities and this number continues to grow. According to the latest report from Open Doors, a publication from the Institute of International Education (2012), there were 764,495 international students at colleges and universities in the United States in the 2011 and 2012 academic year. This was an increase of 5.7% from the previous year. Additionally, the top three countries where students came from were China, India, and South Korea, which comprised of 48% of the total enrollment. The Chronicles of Higher Education (2012) also reported that international students make up 3.7% of the student population contributing to billions of dollars to the U.S. economy. With the increasing number of international students to the U.S. educational system, it is

pertinent to evaluate ways to improve the quality of support services and find ways to help facilitate the adjustment of this student population.

International Students and Stressors

Even though many international students are successful in their academic lives, many international students often struggle with greater stressors in adjusting to a new culture, which can manifest into physical health symptoms (Yang & Clum, 1994). In one study, Chen (1999) reported common stressors that international college students experienced include second language anxiety, educational stressors, and sociocultural stressors. Other researchers have concurred that international students may experience problems with finances, difficulty in adjusting to the homesickness, educational system, lack of support, loss of similar friends and family, and difficulties in understanding the norms or customs of the new culture (Church, 1982; Lin & Yi, 1997; Yang & Clum, 1994; Zhai, 2002).

Owing to the booming population of international students all over the world, more researchers have looked at the adjustment and well-being of this population outside of the U.S. (Lewthwaite, 1997; Pan, Wong, Joubert & Chan, 2008; Yusoff, 2012). In a study of international students in New Zealand, Lewthwaite (1997) found that the greatest challenge to adaptation was the lack of competence to communicate interculturally, feelings of loneliness, cultural mismatch, or feelings of annoyance with not being able to integrate with New Zealanders.

Roh (2012) reported that there has been an increase in suicide rates for international students, particularly for students from Asia. According to statistics from the Centers for Disease Control and Prevention (2007), suicide rates for Asian/Pacific

Islander was found to be 12.44% for individuals who are in the age range of 20-24 years. The JED foundation, an organization that focuses on suicide prevention and promoting emotional health of college and university students, noted that the second leading cause of death is suicide, and Asian-Americans and Asian international students tend to make a disproportionate number of death threats on college campuses in the U.S.(as cited in Roh 2012). Owing to the higher pressure and risk placed on this specific population with cultural adjustment and other psychological stressors, promotion of mental health services and other resources should be readily available and accessible to this population. Additional, factors that may impede them from utilizing the resources they need should also be examined.

Types of Stigma

In the help-seeking research, many researchers conducting studies found that stigma is a salient factor in influencing attitudes towards seeking professional psychological help and possibly preventing people from getting the help they need (Komiya, et al., 2000; Corrigan, 2004; Vogel et al., 2005; Vogel, et al., 2006; Vogel, et al., 2007; Eisenberg, et al., 2009; Nam et al., 2013). Corrigan (2004) defined stigma as not being socially accepted because of being seen as an individual with deficits based on physical or personal characteristics. He purported that stigma decreases one's self-esteem and takes away social opportunities from one. In fact, stigma is a social-cognitive process that involves cues, stereotypes, prejudice, and discrimination.

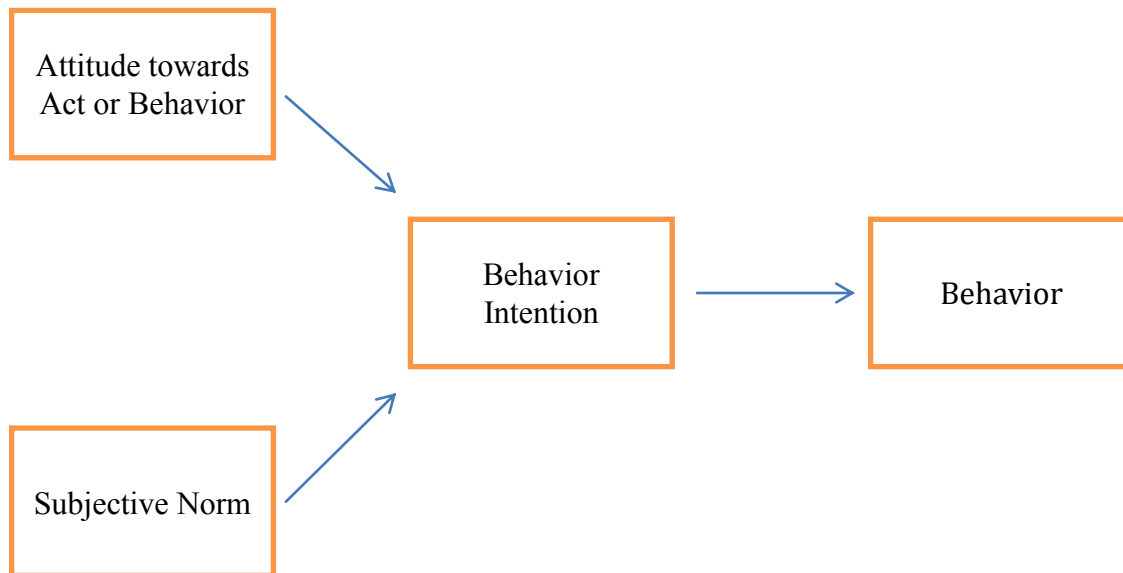
Corrigan (2004) categorized stigma into self-stigma and public stigma. Self-stigma can diminish one's self-esteem and sense of self. It happens when an individual identifies with the stigmatized groups (i.e. individuals with mental illness) and

internalizes stigmatizing ideas held by society, which brings about self-prejudice and self-discrimination to one and impacts one's life goals and quality of life. Thus, seeking help from others can further lower a person's self-concept. It can be perceived as a threat to oneself because one may see himself or herself as inadequate or inferior even when one is psychologically distressed. Hence, self-stigma may possibly yield avoidance in participating in treatment. Furthermore, one may avoid seeking psychological help to maintain one's positive image (Corrigan, 2004; Vogel et al., 2006). Public stigma is the opinion taken on from others that an individual is not socially accepted. This can reduce the amount of social opportunities for an individual. Examples of discrimination which occurs from public stigma of mental illness may include not wanting to be near someone or hiring them for a position (Corrigan, 2004). Even though there is the need for health services for a person who needs it, the individual who is labeled as mentally ill may be less likely to have available health care services compared to another individual who is because of the public stigma put on them.

Previously, researchers (Ajzen & Fishbein, 1980; Cramer, 1999; Vogel & Wester, 2003) have examined theoretical models that may help to predict help-seeking behaviors in different populations. In their attempt to predict and understand human behavior, Ajzen and Fishbein (1980) noted in their theory of reasoned action that a person's intention is the determinant of one's action with the assumption that individuals are rational and utilize the information available to them. Additionally, it was argued that two basic determinants of intentions depend on "attitude toward the behavior" defined as one's evaluation of carrying out a behavior and "subjective norm" (p.6) termed as one's

perception of social pressures experienced by the individual for presenting a behavior (See Figure 1 below).

Figure 1. Theory of Reasoned Action (Fishbein, & Ajzen, 1975)

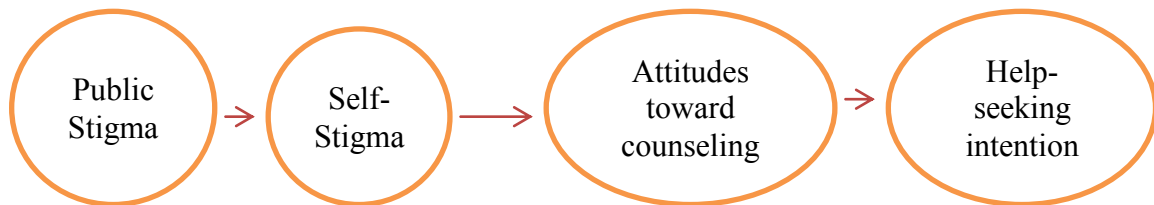


Both of these determinants are also a function of beliefs. For instance, in assessing attitude toward the behavior, a person who believes that his/her behavior will lead to positive outcomes will tend to have a favorable attitude towards carrying out the behavior. On the other hand, for examining subjective norm, the belief is dependent on one's referent group i.e. groups or individuals whom the individual perceives social pressure to perform the behavior. Since the study of behavior is not always feasible, intention is used as an estimate for that behavior. Hence, behavior is perceived as a function of intention in this theory. More elaboration on this theory will be presented in Chapter 2.

Based on Ajzen and Fishbein's (1980) theory of reasoned action, Vogel and Wester (2003) developed a model of help-seeking. As the theory proposed that

“intentions are directly based on one’s attitudes toward a behavior and that, in turn, these attitudes are based on one’s attitudes toward a behavior, and these attitudes are based on the expectations one has for the outcome of the behavior” (Vogel, Wade, & Hackler, 2007, p. 42). It was noted that the primary determinant of intention to seek psychological or interpersonal help depended on one’s attitudes toward the counseling process and the attitudes were based the beliefs one has about seeking help (i.e., the amount of self-stigma or public stigma that an individual experiences). Vogel et al. (2007) found support that the relationship between perceived public stigma and willingness to seek counseling was indirectly mediated by self-stigma and attitudes toward seeking help (see *Figure 2* below). They found that perceptions of public stigma contributed to the experiences of self-stigma, which influenced help-seeking attitudes, and also to intentions to seek counseling for psychological and interpersonal concerns (Vogel et al., 2007).

Figure 2. Vogel’s Help-Seeking Model



As this model has worked with previous studies (Vogel et al., 2007) on Caucasian students, this model may work differently with other samples. For instance, public stigma and self-stigma may or may not play an important role in different cultures. Therefore, this model should be tested and replicated with other samples. Asian international students experience many challenges and stressors in college (Church, 1982; Lin & Yi, 1997; Yang & Clum, 1994) yet may not seek professional psychological help

because of stigma concerns and cultural values (Yakunina & Weigold, 2011). It would be important to assess how this model can help to predict attitudes towards seeking professional psychological help and help-seeking intentions for this population.

Adding self-disclosure as a culturally relevant variable may help improve the applicability of this model. Kim, Atkinson, and Umemoto (2001) stated that being able to control one's emotions and resolve one's psychological problem is perceived as strength in the Asian culture. Hence, having to share one's feelings, thoughts, emotions, and attitudes with another person may contradict one's attitudes and intentions to seek professional psychological help, particularly for on Asian individual. Furthermore, inclusion of the self-disclosure variable and empirically testing it on an Asian cultural context for the first time will help to test the validity and applicability of the model for both Asian international students and American students. Chapter 2 will provide more details on the pathway of the self-disclosure variable, and how the hypothesized model will fit for Caucasian students and Asian International students.

In short, my initial proposal was to conduct a study to build on (Vogel et al., 2007) help-seeking model to predict help-seeking attitudes and help-seeking behaviors. By adding in self-disclosure as a predictor to his model, I was able to examine how self-disclosure, public stigma, and self-stigma differ between both American students and Asian international students in predicting attitudes for seeking professional psychological help and help-seeking intentions. Findings could be beneficial to educational administrators and providers in the health care system, as well as improve the well-being of college students. The focus of this study was to empirically test and build a help-seeking model for international students and American students in the United States.

In the following chapter, there is a review of the literature and research on help-seeking. There is a review on the different variables, help-seeking attitudes of different populations, and models relevant to help-seeking attitudes and help-seeking intentions, followed by more elaboration on the theory of reasoned action. After which, I explain how self-disclosure is utilized in my model. Additionally, a detailed presentation on my methodology for the study is presented in Chapter 3.

CHAPTER 2

LITERATURE REVIEW

In this chapter, a review on the extant research conducted on help-seeking attitudes and psychological variables that are related to it is presented. Following that, there is a summary of studies that examined help-seeking attitudes of minority students and international students. Models of help-seeking are also presented, as well as an elaboration of the Theory of Reasoned Action. Research on the different variables in the selected model is explained and hypotheses for the different populations examined in this study are addressed.

Overview of Predictors with Help-Seeking Attitudes

Many researchers have explored factors that may inhibit an individual from seeking psychological help, different factors such as self-concealment, psychological distress, social support, anticipated risks and benefits, self-disclosure, self-stigma, public stigma, treatment fears, or the avoidance of experiencing negative feelings from painful experiences were identified (Kushner & Sher, 1989; Cramer, 1999; Vogel & Wester, 2003; Komiya et al., 2000; Vogel et al., 2005; Shaffer et al., 2006; Vogel et al., 2007; Eisenberg et al., 2009; Nam et al., 2013). Kushner and Sher (1989) conceptualized psychological factors in relation to seeking psychological help with an approach-avoidance formulation based on motivation of the individual. Avoidance factors are factors that decrease one's chances of seeking professional psychological help, whereas approach factors are factors that encourage help-seeking attitudes.

Vogel et al. (2007) identified five avoidance factors in the help-seeking process from different helping professionals – counseling, clinical and social psychology, social

work, psychiatry. These five factors were treatment fears, social stigma, fear of emotion, anticipated utility and risks, and self-disclosure. Approach factors that have a positive effect on help-seeking attitudes were having a social network that encouraged help-seeking, individuals who recognized their problems as more severe, and individuals who expected more benefits tend to seek help (Nam et al., 2013).

Avoidance Factors

Many researchers had examined avoidance factors that prevent one from seeking psychological help (Hinson & Swanson, 1993; Kushner & Sher, 1989; Komiya et al., 2000; Vogel et al., 2005; Shaffer et al., 2006; Vogel et al., 2009). In a study on fear of psychological treatment and mental health avoidance, 618 clinical and nonclinical participants whose age ranged from 16 to 63 years old participated by completing a psychological distress scale using the *Brief Symptom Inventory* (BSI; Derogatic, 1975), a fear of therapy measurement with the *Thoughts of Psychotherapy Survey* (TAPS, Pipes, Schwarz & Crouch, 1985), and a previous treatment history. Fears may stem from how the individual might be treated or be coerced and perceived by the therapist. The results showed that the highest level of fearfulness was shown by treatment avoiders, followed by participants who “never needed treatment”, and participants who “needed treatment and sought it.” However, post hoc tests showed that only individuals who avoided needed treatment and individuals who sought needed treatment showed the least fear. The authors concluded even though their results were consistent with increased fear of treatment leading to avoidance of service, this was not substantiated by the study. Treatment fearfulness was seen as an avoidance motivation because increased distress was positively related to treatment fear. Kushner and Sher (1989) stated that

psychotherapy can be difficult, risky, and embarrassing to an individual's identity and environmental stability. Change tends to induce fear that may result in avoidance behavior.

Additionally, other factors that may inhibit individuals from seeking psychological help are social stigma and fear of emotions (Komiya et al., 2000). Social stigma is defined as the fear of how one is judged by others. Komiya et al. (2000) noted the possibility of how individuals who are afraid of their emotions would ascribe their reason for not seeking psychological help to social stigma, instead of being afraid of their emotions. In their study of 311 undergraduate students which comprised of 87% Caucasian, 8% African American, 2% Hispanic American, 1% Asian American, and 2% multiracial American, and 1% Native American and international students, the authors examined how effects of emotional openness, social stigma, and psychological distress predicted attitudes towards seeking psychological help. The students completed the *Test of Emotional Styles* (TES; Allen & Hamsher, 1974) to assess dimensions of emotionality and the *Stigma Scale for Receiving Psychological Help* (SSRPHI; Komiya et al., 2000) to examine one's perception of how stigmatizing it is to seek psychological treatment. Additionally, they also completed the *Hopkins Symptom Checklist -21 item version* (HSC-21; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) to determine the level of psychological and behavioral levels of distress, and the *Attitudes towards Seeking Professional Psychological Help-Short* (ATSPPH-S; Fischer & Farina, 1995) to examine attitudes towards seeking professional help for psychological problems.

By using simultaneous multiple regression analyses, the authors found that greater emotional openness predicted more favorable attitude towards psychological

help-seeking. Having perception of greater stigma was not only negatively correlated with psychological help-seeking; it was also negative correlated with emotional openness. Individuals who experienced greater situational discomfort with emotional disclosure were found to have more negative attitudes towards counseling despite the level of distress. Therefore, the authors recommended that future studies examine the generalizability of these findings to a more diverse population, especially in some cultures where emotional control is highly valued.

Another avoidance factor that prevents one from seeking professional psychological help is anticipated utility and risks (Vogel et al., 2005; Shaffer et al., 2006; Vogel et al., 2007). Anticipated utility is perceived as the individual's expectations of usefulness in talking to a counselor and anticipated risks are seen as the individual's perception of potential danger and consequences of confiding to another individual. Vogel et al. (2005) conducted two studies that examined predictors of seeking psychological services. The first study assessed how attitudes towards counseling may be mediated by 11 psychological factors and the intention to seek help for 3 psychological problems – interpersonal issues, academic issues, and drug/ alcohol issues among 354 college students. The 11 psychological factors included: social stigma, treatment fears, self-disclosure, self-concealment, anticipated risk, anticipated utility, social norm, distress, social support, previous therapy, and sex of participant. By using structural equation modeling (SEM), the authors noted that social support, self-disclosure, anticipated utility, social stigma, social norm, and previous use of counseling significantly predicted attitudes towards seeking professional psychological help, which in turn, help predict intention to seek help for interpersonal and drug issues. Hence,

anticipated utility was found to be a significant predictor of attitudes towards seeking psychological help, but not anticipated risks.

Furthermore, the authors conducted a second longitudinal study with a new sample of 1128 college students. For this study, the authors evaluated service usage of a group of individuals who had experienced a distressing event, as well as the relationship between participants' comfort of disclosing distressing information and anticipated risks and utility in discussing issues with a counselor. Participants were contacted twice between a 2-3 month period through their classes and asked whether they had sought therapy or counseling services since the last survey, and 617 participants responded to both rounds of the survey. By using logistic regression, the results indicated that the anticipated outcomes of deciding to disclose emotional issues to a counselor were associated with actual help-seeking behavior. Emotional self-disclosure played an important role in understanding help-seeking behavior. The researchers further clarified the relationship between psychological distress and anticipated risk and utility through this study. Having psychological distress is not a clear predictor of help-seeking, but it may be the interaction between the experience of distressing event and anticipated risks. Thus, the researchers found that only for participants who had experienced a distressing event, anticipated risks significantly predicted the probability of help-seeking. Yet, among individuals who had not experienced a distressing event, anticipated risk did not significantly predict the probability of help-seeking (Vogel et al., 2005).

Shaffer et al. (2006) conducted a study that examined the mediating roles of anticipated risks, anticipated benefits, and attitudes on decision to seek professional help from an attachment perspective. The authors used structural equation modeling (SEM) to

assess the link between adult attachment and help-seeking intentions for psychological and interpersonal concern. Participants were 821 undergraduate students who were primarily European American. Participants completed measures on attachment using the anxiety and avoidance subscales in *Experiences in Close Relationships Scale* (ECRS; Brennan, Clark, & Shaver, 1998), anticipated risks and anticipated benefits with the *Disclosure Expectations Scale* (DES; Vogel & Wester, 2003), attitudes towards seeking professional help using the *Attitudes Toward Seeking Professional Help Scale* (Fischer & Farina, 1995), and intentions to seek counseling for psychological and interpersonal concerns using the *Intentions to Seek Counseling Inventory* (ISCI; Cash, Begley, McCown, & Weise, 1975). The researchers concluded that higher attachment avoidance and less intent to seek help were mediated by lower anticipated benefits and higher anticipated risk, as well as less positive attitudes toward seeking help. Hence, one's attachment contributes to one's perception of anticipated utility and risk in seeking professional help, which in turn affects help-seeking intentions.

Self-disclosure is also another factor that inhibits individuals from seeking psychological help. Hinson and Swanson (1993) assessed how problem severity, amount of self-disclosure, and self-disclosure flexibility affect willingness to seek help for problems. There were 101 mid-western students ranging from 17 to 28 years old who were participants in this study. These participants completed an adapted version of the *Jourard Self-Disclosure Questionnaire* (SDQ; Jourard, 1971; Brown, 1981), the *Chelune Self-Disclosure Situations Survey* (SDSS; Chelune, 1976), and responded to two help-seeking scenarios. By utilizing stepwise regression analysis, results showed that the interaction of willingness to self-disclose to a counselor and severity of problem

accounted for significance variance in willingness to seek help. The authors suggested that more research is needed to examine the causal link between willingness to self-disclose to a counselor and willingness to seek help. Additionally, the authors questioned the predictive validity of the scales, and recommended future research to examine self-disclosure as one's willingness to disclose to a counselor, instead of assessing overall tendency or general flexibility in self-disclosure patterns.

More recently, in a meta-analysis conducted on psychological factors in college students' attitudes towards seeking professional psychological help, Nam et al. (2013) yielded 18,694 studies in their initial search through relevant keywords on help-seeking attitudes. After sorting the data and examining the data on relationship between psychological factors and attitudes towards seeking psychological help, the authors located 320 studies. The authors also applied exclusion criteria by limiting studies to only university students, studies that directly assessed attitudes towards seeking help through *Attitudes Towards Seeking Professional Psychological Help* (Fischer & Turner, 1970), only psychological variables that have been examined by more than three studies to allow for generalization of the study, and only studies that provided statistical data were included. Thus, 19 studies were selected which range in the time period from 1995 to 2011, totaling 7396 participants. Through using the program, Meta-analysis with Interactive eXplanations (MIX), the authors calculated effect size for the 9 psychological factors obtained. The authors stated that self-stigma had the largest effect size, followed by anticipated benefits. Medium effect size was found for self-disclosure, anticipated risk, public stigma, and small effects were located for self-concealment, social support, and depression (Nam et al., 2013). Even though researchers in previous studies had

examined many factors, this current study specifically looked at self-stigma, public stigma, and self-disclosure. The reason being that these factors have large to medium effect in predicting attitudes towards seeking psychological help and are supported to have utility in the hypothesized model.

Help-Seeking Attitudes of Students

In reviewing the literature, the sample characteristics of participants in the help-seeking literature appear to be similar. Most of the help-seeking research was primarily conducted on a European American student population (Hinson & Swanson, 1993; Cepeda-Benito & Short, 1998; Komiya et al., 2000; Vogel & Wester, 2003; Vogel et al., 2005; Shaffer, et al., 2006; Vogel & Armstrong, 2010). Additionally, most of the help-seeking research focused on undergraduate students as participants (Hinson & Swanson, 1993; Kelly & Achter, 1995; Cepeda-Benito & Short, 1995; Short, 1998; Komiya, et al., 2000).

One study by McCarthy, Bruno, and Sherman (2010) argued that age may contribute to the help-seeking process. Therefore, the authors explored help-seeking attitudes of graduate students at an off-campus professional site with 217 participants with an age range from 19 to 75 from 10 academic programs. Analyses using simultaneous hierarchical multiple regression analyses were used to examine the impact of demographic and other predictor variables on help-seeking attitudes. Researchers had indicated in previous results on how graduate students held a moderately favorable stance towards seeking professional psychological help, and that time, affordability, and lack of insurance were obstacles to their help-seeking process. Moreover, for this sample of students, there was a contradiction as stigma was not a substantial obstacle to help-

seeking, yet scores on the stigma item indicated a significant relationship to help-seeking attitudes. Therefore, for participants who had higher rates on stigma, the less favorable their help-seeking attitudes were. Salient predictors included insurance status, prior counseling experience, discomfort with disclosure, and travel to main campus (McCarthy et al., 2010). Hence, even for graduate students, stigma and self-disclosure were relevant predictors for help-seeking attitudes.

Help-Seeking Attitudes of Minority and International Students

In reviewing the help-seeking literature on minority groups and international students, researchers have examined help-seeking attitudes and differential coping patterns of different groups in the United States (Tracey et al., 1986; Sheu & Sedlacek, 2004; Masuda, Anderson, Twohig, Feinstein, Chou, et al., 2009; Ruzek, Nguyen, & Hergoz, 2011; Masuda & Boone, 2011; Yuknina & Weigold, 2011). Tracey et al. (1986) conducted a study that examined help-seeking and problem perception of college students by sampling 3050 clients seen in a college counseling setting from fall of 1980 to spring of 1983. Clients were requested to complete a questionnaire that reviewed a list of 8 problems, to endorse all that applied, followed by endorsing one problem of greatest concern. By using chi-square tests of independence, the authors noted that interpersonal or intrapersonal concerns seemed to be over-endorsed by Caucasians and under-endorsed by Asian Americans. Thus, the results indicated that the help-seeking process was different between Asian Americans and Caucasians. Asian American clients were much more likely to perceive themselves as having educational or vocational concerns compared to Caucasian clients who tend to have more emotional or personal concerns. The authors interpreted that Asian Americans may report academic and vocational

concerns and less personal/ emotional issues because of stigma and social desirability factors, such as the cultural value of saving face. Thus, stigma and self-disclosure in attitudes towards seeking psychological help and intentions to seek help are likely to be different between Caucasian and students of Asian descent.

Subsequently, Sheu and Sedlacek (2004) conducted an exploratory study of help-seeking attitudes and coping strategies among first-year college students ($N= 2678$) by race and gender. Results were analyzed using general linear modeling (GLMs) on help-seeking attitudes across three racial groups – White Americans, Asian Americans, and African Americans. This was not significant; however, race and gender had main effects for some of the items assessing help-seeking attitudes. It was noted that African Americans had more positive attitudes towards using professional help sources than did other racial groups. This group was more willing to use study skills and time management training, yet not other counseling-related sources. Apart from being more likely to seek study skills training for Asian Americans, the help-seeking attitudes towards counseling sources for Asian Americans and Whites were not statistically significant. In examining coping strategies, Asian Americans had a greater tendency to utilize avoidant coping. Additionally, both Asian Americans and White Americans were more likely to utilize wishful thinking as a coping strategy compared to African Americans. The differences between help-seeking attitudes and coping strategies are notable in these groups. As interpreted by the authors, Asian Americans' tendency to use avoidant coping may stem from their cultural values such as self-control and avoidance of shame; thus, they play a more passive role in the counseling relationship. Asian international students who may embrace similar cultural values may also utilize avoidant

coping strategies, thus it may be helpful to consider how self-disclosure can help to predict help-seeking attitudes and intent for both Caucasian and Asian students.

Similarly, researchers had also examined the help-seeking experiences and attitudes among the three cultural groups – African American, Asian American and European American (Masuda et al., 2009). Participants consisted of 518 undergraduate students recruited from a large public Southeast university in the U.S. The results indicated that compared to Caucasian American students, fewer Asian American and African American undergraduate students had direct or indirect experiences of seeking professional psychological help, sought professional help, knew of someone who had sought professional help, or were diagnosed with a psychological disorder. Moreover, Asian American and African American student groups showed greater stigmatizing attitudes towards people with psychological disorders and a lower stigma tolerance in seeking professional psychological help than did the Caucasian American group (Masuda et al., 2009). Therefore, the researchers showed that there is a difference in help-seeking experiences and attitudes among the ethnic groups. Furthermore, it may be important to assess the relevance of stigma and how it affects the prediction of attitudes and intentions to seek psychological help for different cultures.

Masuda and Boone (2011) conducted another study examining differences in help-seeking attitudes among ethnic groups. Participants were Asian American ($N=166$) and Non-Hispanic European ($N=300$) college students whose age ranged from 17 to 52 years old. The participants completed the *Attitudes toward Seeking Professional Psychological Help* (ATSPPH; Fischer & Turner, 1970) questionnaire, the *Stigmatizing Attitudes-Believability* (SAB; Masuda, Price, Anderson, Schmertz, & Calamaras, 2009)

instrument, and the *Self-Concealment scale* (SCS; Larson & Chastain, 1990). The results showed that mental health stigma was significantly and negatively related to help-seeking attitudes overall. For the European American group, mental health stigma was significantly and negatively related to help-seeking attitudes overall and stigma tolerance in help-seeking. Masuda and Boone (2011) found that Asian American students with no prior history of seeking professional help were found to have less favorable attitudes towards help-seeking overall, lower stigma tolerance, and interpersonal openness regarding seeking help, greater mental health stigma, and greater self-concealment compared to the non-Hispanic European American students. As a result, it would be important to examine how self-stigma or public stigma differs in groups.

Apart from examining the help-seeking attitudes of ethnic minority individuals in the U.S., researchers had also conducted studies on the help-seeking attitudes of students from international backgrounds (Al-Darmaki, 2011; Yakunina & Weigold, 2011). Al-Darmaki (2011) investigated college students' needs, help-seeking attitudes, preference for source of help, and perceptions of counseling services in United Arab Emirates (UAE). Participants included 492 college students from a national university in UAE. Students were assessed for common college needs, attitudes towards seeking professional psychological help, preference of source of help and perceptions of services as the counseling center. Al-Darmaki (2011) found that Emirati college students have slightly positive attitudes towards seeking professional help, yet have negative attitudes towards interpersonal openness, which explained their preference for non-professional sources of help such as one's family or friends. The authors stated that the increased acceptance and tolerance of stigma stems from seeking help for psychological issues, even though stigma

and not wanting to self-disclose are key components in avoiding counseling (Al-Darmaki, 2003; Hinson & Swanson, 1993; Komiya et al., 2000). The authors also noted that half of the participants were unaware of resources or services offered by their counseling center. It would be important to explore how stigma and self-disclosure may predict help-seeking attitudes and account for the increased acceptance of counseling and mental health services.

With reference to Asian international students in the U.S., research integrated both cognitive and cultural predictors to assess Asian international students' intention to seek counseling in U.S. (Yuknina & Weigold, 2011). In a sample of 295 Asian international students comprising of 49% men and 51% women, with an age range from 18 to 42 years old, students were recruited from 20 U.S. universities with a large international student populations. This study assessed intentions to seek counseling with the Psychological and Interpersonal Concerns subscale of the *Intentions to Seek Counseling Inventory* (Cash, Begley, McCown, & Weise, 1978), counseling attitudes with *Attitudes Towards Seeking Professional Psychological Help-Short Form* (Fischer & Farina, 1995), stigma concerns with *Perceptions for Stigmatization by Others for Seeking Help Scale* (Vogel et al., 2009), acculturation with the *European American subscale of the Asian American Multidimensional Acculturation Scale* (Chung, Kim, & Abreu, 2004), Asian values with the *Asian American Values Scale-Multidimensional* (Kim, Li, & Ng, 2005), and loss of face with the *Loss of Face* measure (Zane & Yeh, 2002). By utilizing path analysis to test the hypothesized mediation models, the authors found that counseling attitudes fully mediated the relationship between Asian values and help-seeking intentions. Thus, participants who had more traditional values endorsed less

positive attitudes and lower help-seeking intentions. The authors noted that no significant associations were found between acculturation and help-seeking intentions. In addition, loss of face and stigma concerns had direct positive, rather than negative, associations with help-seeking intentions. Yuknina and Weigold (2011) explained that loss of face and stigma might increase an Asian international students' anxiety about sharing psychological problems with significant others in their lives (as cited in Mau & Jepsen, 1980; Olivas & Li, 2006), and the fear of violating this cultural norm might discourage them from seeking help from their community but increase their intention to seek professional psychological help because of the confidential nature of the counseling relationship. Therefore, the researchers who conducted this study highlighted the influence of stigma and the salience of culturally relevant predictors such as loss of face and values, in predicting help-seeking attitudes or intentions of Asian international students. However, one of the limitations of this study is that some of the measures used were designed for Asian American rather than Asian international students. Hence, future research should focus on validated measures in examining these constructs for Asian international students, which was important in the current study.

Kim, Atkinson, and Yang (1999) conducted a study that identified 14 core Asian values in the Asian culture. The values derived were avoidance of family shame, collectivism, deference to authority figures, conformity to expectations of family and social norms, deference to authority figures, educational and occupational achievement, filial piety, importance of family, maintenance of interpersonal harmony, placing other's needs ahead of one's own, reciprocity, respect for elders and ancestors, self control and restraint, and self-effacement. Many of these values emphasized the obligation towards

family and respecting one's elders especially one's parents, following their rules, and meeting their expectations. Thus, there is an underlying theme on how being other-centered and in turn, public stigma, may pertain more to Asian students. Zane and Yeh (2002) explained the concept of losing one's face as losing one's social status because of violating community and cultural rules. Thus, self-disclosure and expressing emotions valued in help-seeking professions (Uba, 1994) may contradict with the value system of an Asian individual. Additionally, revealing personal information about one's thoughts, feelings, and emotions to a stranger may be perceived as breaching the cultural norms and bringing shame to one's family. Since seeking psychological services from a professional is often stigmatized in traditional Asian cultures, this can contribute to the feeling of shame and loss of face to one's family. Hence, it is critical to assess how public and self-stigma, as well as self-disclosure, affect attitudes towards seeking professional psychological help and help-seeking intentions for Asian international students.

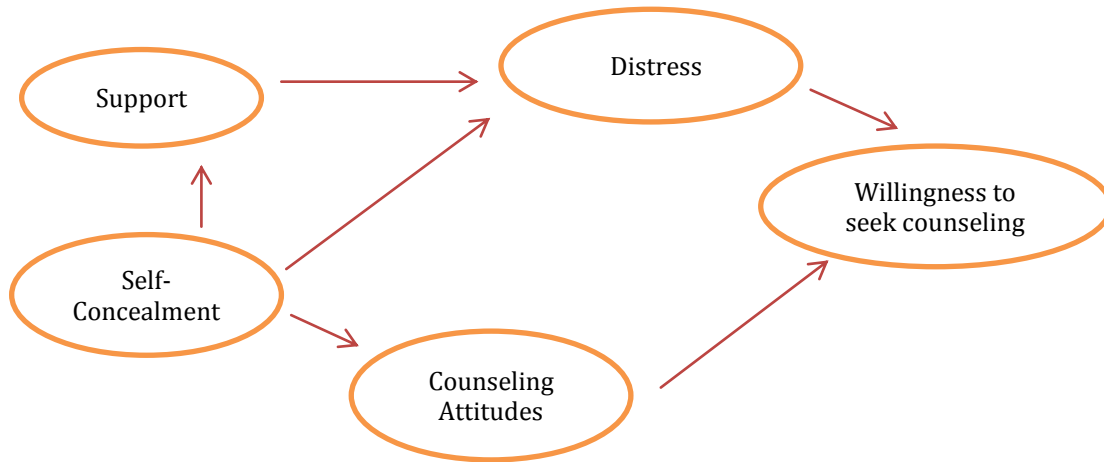
Based on findings from previous studies, researchers had emphasized possible differences in help-seeking attitudes, coping strategies, and help-seeking behaviors in different cultural groups based on different psychological factors. Vogel et al. (2007) discussed the salience of how cultural values, beliefs, and norms can act as potential barriers to using professional services. As mentioned earlier, some cultures may prefer avoidance strategies to deal with problems. Vogel et al. (2007) had previously emphasized the relevance how some factors such as acculturation, cultural commitment, cultural mistrust, had been associated with stigma tolerance and attitudes towards seeking psychological help. Some cultures have preferred to use family and friends when they

need help, as compared to a counselor, who may be perceived as part of an “out-group.” In fact, some cultures may use avoidance strategies to deal with problems. Subsequently, Vogel et al. (2007) argues for a better understanding of how culture and ethnicity impact different psychological avoidance factors. Therefore, it would be important to assess how some of the salient psychological factors – stigma and self-disclosures predict help-seeking attitudes and in turn help-seeking intentions in different student population, more specifically in this study –American students and Asian international students.

Models of Help-Seeking: Cramer’s Model

One of the more common models proposed in the help-seeking literature is Cramer’s (1999) model. Cramer (1999) proposed a help-seeking model using path modeling structures with personal distress, attitudes towards counseling, social support, and self-concealment to predict how likely an individual would be to seek psychological help. Larson and Chastain (1990) defined the term self-concealment as the predisposed reluctance to share distressing information with others. Cramer (1999) noted that high self-concealers would be less willing to share personal information; hence, they would be less willing to seek psychological help. In fact, they may harbor negative attitudes toward therapist or counseling because of having to reveal negative information about self. By reanalyzing the data from two independent studies (Kelly & Achter, 1995; Cepeda-Benito & Short, 1998), Cramer (1999) identified a path analysis model using the main factors –social support, self-concealment, level of distress, and attitudes to counseling that are related to willingness to seek counseling (*See Figure 3*).

Figure 3. Cramer's Help-Seeking Model



In order to develop the above model, Cramer (1999) converted scale correlations and standard deviations from two independent studies (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995) into covariance matrices for path analysis with EQS. This model noted that there is a higher tendency for individuals to seek counseling when distress is high and attitudes to counseling are positive. Additionally, individuals who are high-concealers tend to have lower social support, and having lower social support tends to increase the level of distress that an individual person has. Also, help-seeking had a stronger relationship with attitudes toward counseling as compared to distress (Cramer, 1999). Hence, predicting the likelihood of self-concealers to see professional help may be dependent on having a strong association with distress and a weak relationship with attitudes towards counseling. Cramer (1999) also critiqued the efficacy and generalizability of his model because of limitations in the sample. Furthermore, since the model only offers reasonable fit, it was proposed that a more efficient model may be present.

Other researchers (Liao, Rounds, & Klein, 2005; Leech, 2007) have also utilized Cramer's (1999) model to examine help-seeking on different populations – counseling students in training (Leech, 2007) and Asian and Asian American college students' (Liao et al., 2005). Leech (2007) conducted a study examining how Cramer's model of willingness to seek counseling was applicable to counseling students in training. She surveyed students from 19 master's level counseling programs across the United States and collected data with the assistance of 19 faculty members, 1 in each university. The sample statistics included 427 females, 86 males, and 6 who did not identify their gender. Measures distributed to participants included the *Intention to Seek Counseling Inventory* (ISCI; Cash, et al, 1978), *Hopkins Symptom Checklist -21* (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988; Parloss, Kelman, & Frank, 1958), *Attitudes Towards Seeking Professional Psychological Help* (ATSPPH; Fischer & Farina, 1995), *Social Concealment Scale* (SCS; Larson & Chastain, 1990), and *Social Provisions Scale* (SPS; Cutrona & Russell, 1987). Leech (2007) first used confirmatory factor analysis to assess how well the indicator variables reflected the factors, followed by structural equation modeling (SEM) analyses to assess the fit of Cramer's model. Results showed that the model fits for counselors in training and that there was a stronger relationship between attitudes toward counseling to willingness to seek counseling compared to previous studies. Counseling students were more likely to report being willing to seek counseling if they had a positive attitude toward counseling, lower level of self-concealment, high level of distress and low social support. One of the limitations of this study is that since the data were collected through self-report, participants' knowledge of the area might have influenced scores; also individuals may not want to disclose personal information.

Apart from Leech's (2007) study that applied Cramer's help-seeking model, Liao et al. (2005) revised this model by adding in acculturation effects, and testing it on Asian and Asian American college students. The researchers collected data from 538 college students, with 202 Asians and 336 Whites from a Midwestern university. All participants were asked to complete the measures assessing social supports utilizing the *Interpersonal Support Evaluation List* (ISEL; S. Cohen, Mermelstien, Kamarack, & Hoberman, 1985), self-concealment with the *Self-Concealment Scale* (SCS; Larson & Chastain, 1990), attitudes towards counseling with a revised *Attitudes Towards Seeking Professional Psychological Help Scale* (ATHS; Fischer & Turner, 1970), severity of personal concerns and willingness to seek counseling utilizing a modified *Personal Problem Inventory* (PPI; Gim et al., 1990), and only Asian participants were requested to complete the behavioral acculturation using the *SL-ASIA* (Suinn et al., 1987) and adherence to Asian values measures with the *Asian Values Scale* (AVS; Kim et al., 1999). By using SEM, Liao et al. (2005) demonstrated that both the Asian and Asian American sample and the White American sample had adequate fit to Cramer's (1999) model. However, the structural invariance analyses showed that what happens within the model differs for the two groups. The researchers interpreted that self-concealment as compared to adherence to Asian values was a better predictor of attitudes towards seeking professional help because self-concealment could be a way to cope with value-based significance such as loss of face.

Theory of Reasoned Action and Vogel's et al. (2007) Help-seeking Model

Even though a number of studies have been conducted with Cramer's (1999) model on different populations, some of the more salient variables (i.e. stigma, self-

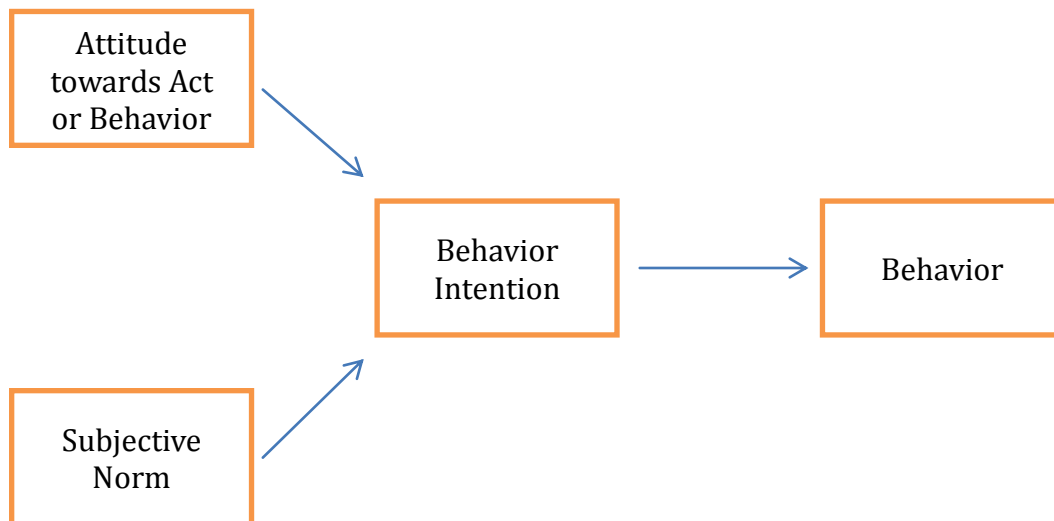
disclosure) in predicting attitudes towards seeking psychological help were not addressed in Cramer's (1999) model. Additionally, it was not built from a specific theory. Hence, the current study also examined Vogel's et al (2007) model that was built from Ajzen and Fishbein's (1980) theory of reasoned action.

The theory of Reasoned Action was developed to predict and have an improved understanding of human behaviors. Ajzen and Fishbein (1980) posited under the assumption that all humans' social behavior is reasonable and stems from information or beliefs about their behaviors. Therefore, one's intentions are the strongest predictor of actual behavior. In addition, one's attitudes towards a particular behavior forecast one's behavioral intentions. Fishbein and Ajzen (2005) stated that no matter how beliefs are acquired, these beliefs drive one to perform or not perform a certain behavior. Individuals hold beliefs about the positive or negative consequences one might experience if they performed the behavior; these behavioral beliefs determines one's attitude towards personally performing the behavior – their negative or positive evaluation of carrying out that behavior. Thus, if the performance of the behavior is likely to bring about more positive outcomes, the attitude towards the behavior will be favorable. Moreover, individuals form beliefs from one's reference group—important individuals or groups in one's life. These beliefs entail having the approval or disapproval from one's referent group for performing or not performing the behavior, and if the referent group engages in the behaviors themselves. These beliefs generate a perceived norm, which is the perceived social pressure that one experiences in choosing to engage or not engage in that particular behavior. Hence, if more individuals in the

referent group approve, and if most of these people perform the behavior, then individuals are less likely to perceive social pressure to engage in that behavior.

Therefore, the two basic tenets of intentions depend on “attitude toward the behavior” (Ajzen & Fishbein, 1980, p.6) which is one’s evaluation of carrying out a behavior and “subjective norm” (Ajzen & Fishbein, 1980, p.6) termed as one’s perception of social pressures experienced by the individual for presenting a behavior (See *Figure 4* below).

Figure 4. Theory of Reasoned Action (Ajzen & Fishbein, 1980)



According to the theory of reasoned action, both of these determinants are a function of beliefs. For instance, in assessing one’s attitudes towards seeking professional psychological help, if an individual believes that his/her behavior will lead to a positive outcome, he/she will tend to have a more favorable attitude towards seeking professional psychological help. Yet, when we examine the subjective norm, if one’s referent group is skeptical of seeking professional psychological help, the individual may perceive social pressure not to perform the behavior of seeking professional

psychological help. Additionally, intentions moderate the relationship between attitude and behavior, so if intentions are not to seek professional psychological help, it is likely to translate into not going to see a professional for psychological help. Furthermore, since it may not be possible to measure the actual behavior, intention is used as an estimate for that behavior. Hence, behavior is perceived as a function of intention in Ajzen and Fishbein's (1980) theory.

Vogel and Wester (2003) also asserted that intentions represent a better approximation of behavioral likelihood because they stem from one's attitudes towards the action as well as perceived normative expectations toward the action in question and one's motivation to comply with expectations. The authors stated that it would be crucial to assess the role of different psychological factors on one's attitudes and one's intention to seek professional psychological help. Therefore, Vogel and Wester (2003) developed a model of help-seeking using public stigma, self-stigma, attitudes toward seeking professional help, and intentions to seek counseling for psychological and interpersonal concerns.

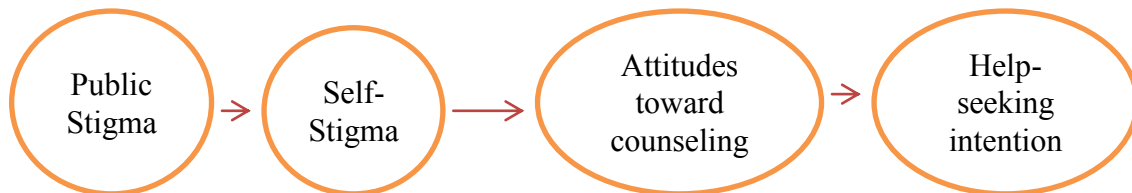
By utilizing the key concepts in the Theory of Reasoned Action between intentions and attitudes, in which, "intentions are directly based on one's attitudes toward a behavior and that, in turn, these attitudes are based on one's attitudes toward a behavior, and these attitudes are based on the expectations one has for the outcome of the behavior" (Vogel, Wade, & Hackler, 2007, p. 42.) The authors hypothesized that intention to seek psychological or interpersonal help depended on one's attitudes toward the counseling process, and these attitudes were based on beliefs that one has about seeking help (i.e., the amount of self-stigma or public stigma experienced by a person).

In their study, Vogel et al. (2007) recruited 680 college students from psychology classes in a midwestern university. Participants were predominantly Euro-American, and men and women were evenly split in the sample. These participants completed the *Perceived Devaluation-Discrimination* scale (Link et al., 1987) to measure perceived public stigma, the *Self-Stigma of Seeking Help Scale* (SSOSH; Vogel et al., 2006) to assess self-stigma, the *Attitudes Towards Seeking Professional Psychological Help Scale -Short*(ATSPH-S; Fischer & Farina, 1995) scale to measure attitudes toward seeking professional help, and the *Intentions to Seek Counseling Inventory* (ISCI; Cash et al., 1975) to measure willingness to seek counseling by only using the psychological and interpersonal concerns subscale to reduce participant burden. By using SEM, the authors first conducted a confirmatory factor analysis to develop a measurement model with an acceptable fit, and then developed a structural model to test the hypothesized relationships. The researchers showed that the measurement model had excellent fit to the data. The structural model tested self-stigma as a mediator between perceived public stigma and attitudes towards seeking professional help and attitudes would be mediated through the effect of self-stigma on willingness to seek counseling.

An alternative structural model was also proposed for a partially mediated model, and it also indicated excellent fit to the data. However, the chi-square difference test indicated no difference between the models when they were compared, thus the final model below (*Figure 5*) was selected by the authors based on parsimony principle. The researchers indicated in their results that the relationship between perceived public stigma and willingness to seek counseling was indirectly mediated by self-stigma and attitudes toward seeking help (see *Figure 5* below). To add, perceptions of public stigma

contributed to the experiences of self-stigma, which influenced help-seeking attitudes, and also intentions to seek counseling for psychological and interpersonal concerns (Vogel et al., 2007).

Figure 5. Vogel's Help-Seeking Model



Rationale for current model

Therefore, in this study, Vogel's et al. (2007) model will be used not only because the model has excellent fit and that it is a parsimonious model built from the theoretical basis of the theory of reasoned action, the variables in this model are salient to the cultural groups that will be investigated. Furthermore, it has been a model that has not been utilized in other studies. This model was primarily built on a European American sample; hence, by extending this model with self-disclosure, the utility of this model was assessed with model comparisons between American and Asian International student population.

The selection of the variables in this model was also chosen with much deliberation from the author. According to the meta-analysis conducted on college students' attitudes towards seeking professional psychological help by Nam et al. (2013), self-stigma was found to have significant large effects ($r = -.63, p < .001$), and both self-disclosure ($r = .34, p < .001$); and public stigma ($r = -.24, p < .001$). On the other hand, the psychological factors in Cramer's model –psychological distress, self-concealment, and

social support had non-significant to small effect in predicting attitudes towards seeking psychological help. Additionally, even though self-concealment may also be a culturally relevant variable, self-disclosure will be more relevant in the current study. As mentioned previously, Vogel et al. (2005) conducted a study examining 11 psychological factors and on 354 college students and using SEM, the only psychological factors that significantly predicted attitudes towards seeking professional help were – social support, self-disclosure, anticipated utility, social stigma, and social norm. Even though self-concealment and psychological distress were included in the 11 psychological factors examined, they were not significant predictors in this study. Therefore, Vogel's et al. (2007) model is chosen in the current study because of the relevance and significance of stigma in examining attitudes toward seeking psychological help. Self-disclosure was proposed to be added as a variable because of the significance of self-disclosure in predicting attitudes towards seeking professional psychological help and intention to seek help.

Apart from public stigma and self-stigma, self-disclosure may be a culturally relevant variable particularly for the Asian international student population. For individuals who embrace more traditional Asian values, there tends to be more stigma towards seeking professional psychological help. Furthermore, Kim et al. (2001) noted that controlling one's emotions and resolving psychological problems by oneself is considered as a strength respected in the Asian culture. Hence, apart from the stigma with which an individual might have to cope in seeking professional psychological help from a stranger, it may also be perceived as a loss of face to the individual because of how one is disclosing information, and individuals may tend to avoid that to prevent loss

of face and to maintain one's integrity and social position (Sue, Zane, & Young, 1994). Therefore, both stigma and self-disclosure may be salient factors pertaining to the population I am examining.

Variables in the model

Self-Stigma

Many studies (Corrigan, 2004; Vogel, Wade & Haake, 2006; Vogel & Wade, 2009; Masuda & Boone, 2011) have looked at how stigma is a salient predictor for help-seeking attitudes and behavior. One of the models created was Vogel's et al. (2007) model described above using theory of reasoned action (Ajzen & Fishbein, 1980), which will be utilized in this study. Corrigan (2004) noted that stigma was the most commonly cited reason that inhibits individuals from seeking psychological treatment. Stigma is defined as being socially unacceptable because of the perception of being seen as flawed based on a personal or physical characteristic. He categorized stigma into self-stigma and public stigma, and that the stigma process can be framed as four social-cognitive processes: cues, stereotypes, prejudice, and discrimination.

For this study, self-stigma is conceptualized as the perception held by oneself that he or she is not acceptable by society (Corrigan, 2004). Corrigan (2004) noted that reducing one's internalized self-esteem or self-worth stems from an individual labeling oneself as being socially unacceptable. Therefore, seeking help from others may be perceived as a threat to one's self-view because of how one sees oneself as inferior. Hence, in order to maintain one's positive image, one may avoid seeking psychological treatment even when one may be experiencing psychological distress because doing so may be identified as a sign of weakness. Corrigan noted that for an individual with self-

stigma, these results from the type of message one tells oneself. An example of a stereotype for self-stigma would be that all people with mental illness are incompetent. For prejudice for self-stigma, one's perception might be that since they have a mental illness, the individual will perceive himself/herself as incompetent and another message could be giving up on trying to get a job because of the belief that one is incompetent due to one's mental illness. In a meta-analysis study (Nam et al., 2013) on psychological factors in college students' attitudes towards seeking professional psychological help at least three studies have examined the importance of self-stigma in predicting attitudes towards seeking professional psychological help. The representative measure has been the *Self-Stigma of Seeking Help Scale (SSOSH)* established by Vogel et al. (2006).

In a study conducted by Vogel et al. (2006), the researchers designed a self-stigma of help-seeking scale. The authors created 28 items to measure self-stigma based on Corrigan's (2004) definition of self-stigma. After which, two professional counselors with doctorates in Counseling Psychology and at least 5 years of therapy post experience assessed the content validity of the items. The counselors rated the degree to which it assessed the concept and ensured that adequate consistency was established. Five hundred and eighty-three college students completed the scale, and factor structure and reliability of the scale were established. In a second study with a different sample of 470 students, students completed the following measures: the *Self-Stigma of Seeking Help (SSOSH)*; Vogel et al., 2006), *Attitudes toward Seeking Professional Psychological Help (ATSPPHS)*; Fischer & Farina, 1995), *Intentions to Seek Counseling Inventory (ISCI)*; Cash, et al., 1975), the *Social Stigma for Seeking Psychological Help Scale (SSRPH)*; Komiya et al., 2000), and the *Disclosure Expectations Scale (DES)*; Vogel & Wester,

2003). Reliability and the factor structure that the Self-Stigma of Seeking Help scale (SSOSH) is unidimensional were verified. Construct and criterion validity for the SSOSH was established by examining the correlations between SSOSH and the other variables. Lastly, multiple regression analyses were run to assess the predictive value of self-stigma in predicting attitudes towards seeking psychological help and intention to seek counseling. Vogel et al. (2006) noted that self-stigma is unique in the conceptualization of help-seeking behavior and that it is conceptually different from self-esteem and public stigma.

More recently, Vogel, Armstrong, Tsai, Wade, Hammer, et al. (2013) examined the cross-cultural validity of the Self-Stigma of Seeking Help (SSOSH; Vogel et al., 2006) scale across 6 nations – England, Greece, Israel, Taiwan, Turkey, and United States by utilizing archival data. The authors found single-factor construct across all countries. Three items did show some variance in 3 countries – Turkey, Greece, and Israel. By examining the invariance of the latent means, samples from Greek, Israel, Taiwan, and Turkey showed lower levels of self-stigma than did the U.S. sample. The authors interpreted this phenomenon with the assertion that perceptions of stigma can vary across cultural groups, and a cultural focus on others could lessen the importance of the self, thus bringing about lower self-stigma.

In a study of stigma and help-seeking for mental health among college students, 5555 students from 13 universities participated (Eisenberg et al., 2009). Measures that were completed included the perceived public stigma from an adaptation of the *Perceived Devaluation-Discrimination Scale* (Link et al., 1987) and one's own stigmatizing attitudes about mental health treatment termed as personal stigma. Three items were

reworded from the perceived “most people” to “I”. The results from this study indicated that personal stigma was higher among students who were male, younger, Asian international, more religious, or from a poor family. Additionally, personal stigma was significantly and negatively associated with help-seeking measures (i.e. perceived need and usage of psychotropic medication, therapy, and nonclinical sources of support).

Public Stigma

Public stigma is defined as the perception held by others (i.e. group or society) that an individual is socially unacceptable. Compared to self-stigma, public stigma may be more challenging to alter because it has to be targeted at the societal level (Vogel et al., 2007). Corrigan (2004) noted that public stigma brings about harm to social opportunities, and the impact of public stigma is often seen in the health care system where individuals who are labeled as mentally ill are less likely to benefit from physical health care services compared to individuals who are not labeled as mentally ill. An example of a stereotype for public stigma includes perceiving all people with mental illness as dangerous. A prejudicial example includes agreeing that all individuals with perceived mental illness are dangerous and people should be afraid of them. Lastly, an example of discrimination for public stigma includes not wanting to be near any individual with mental illnesses or hiring the individual for a position (Corrigan, 2004).

Nam et al. (2013) found seven studies utilizing the psychological factor – public stigma in their meta-analysis of psychological factors in college students’ attitudes towards seeking professional psychological help. The representative measures were the *Perceived Devaluation-Discrimination Scale* (Link et al., 1987) and the *Stigma Scale for Receiving Psychological Help (SSRPH)* (Komiya et al., 2000). More recently, Vogel,

Wade and Ascheman (2009) also developed the *Perceptions of Stigmatization by Others for Seeking Help* (PSOSH) for assessing the level of stigma in one's social network.

Vogel et al. (2007) utilized the *Perceived Devaluation-Discrimination Scale* (Link et al., 1987) to measure public stigma. This study assessed the mediating effects of self-stigma, public stigma, attitudes towards seeking counseling and willingness to seek counseling for psychological and interpersonal concerns. Vogel et al. (2007) found that perceived public stigma is positively related to self-stigma. However, when evaluating the mediating effect of self-stigma on public stigma and attitudes towards seeking help in Middle Eastern Americans, Soheilian and Inman (2009) noted that the wording of the *Perceived Devaluation-Discrimination Scale* (Link et al., 1987) might not have been culturally appropriate to the minority group they were assessing.

Other studies have used the term social stigma, instead of public stigma. Vogel et al. (2005) assessed 11 psychological factors to predict attitudes and intentions to seek help, and social stigma was one of the variables used. Social stigma was measured using the 5-item *Stigma Scale for Receiving Psychological Help (SSRPH)* (Komiya et al., 2000). Komiya et al. (2000) studied emotional openness as a predictor of college students' attitudes towards seeking psychological help and designed the social stigma scale to assess individual's perceptions of stigma associated with seeking professional help. Preliminary analyses of the scale were conducted and two doctoral level licensed counseling psychologists examined the five items, followed by a maximum likelihood factor analysis that was conducted on these items. The results indicated that SSRPH was a unidimensional scale. Additionally, construct validity was established with the findings

that SSRPH correlated negatively with *Attitudes toward Seeking Professional Psychological Help (ATSPPH-S)*; Fischer & Farina, 1995).

In another study of Asian Americans and European Americans, the authors found that the Asian American group had lower levels of stigma tolerance and greater mental health stigma than did the European American group (Masuda & Boone, 2011). Hence, it would be noteworthy to see the influence of stigma on help-seeking attitudes and help-seeking behaviors of Asian international students because of similarity in values.

Attitudes towards Seeking Professional Psychological Help

Researchers (Vogel et al., 2005) have examined the relationship between attitudes towards seeking professional psychological help and a variety of psychological factors – social stigma, treatment fears, self-disclosure, self-concealment, anticipated risks, anticipated utility, social norm, distress, social support, previous therapy, and sex of participant in previous studies. Kushner and Sher (1989) conceptualized psychological factors in relation to seeking psychological help with an approach-avoidance formulation. Avoidance factors are characterized as factors that decrease one's chances from seeking professional psychological help, whereas approach factors are factors that encourage help-seeking attitudes. Nam et al. (2013) noted that the only standard accepted instrument for measuring mental health treatment attitudes is the *Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS)*; Fischer & Turner, 1970). A revised version of this scale *ATSPPH-SF* (Fischer & Farina, 1995) was developed with only two subscales – recognition of personal need for professional help and confidence in the professional's ability to help (Fischer & Farina, 1995). Other attitude instrument that were developed to measure attitudes toward seeking help did not have much utility, even

though they were created based on the limitations of the validity of the original ATSPPH. These measures include the *Inventory of Attitudes towards Seeking Mental Health Services (IAMHS)*; Mackenzie, Knox, Gekoski, & Macaulay, 2004) and *Belief and Evaluations About Counseling Scale (BEACS)*; Choi, 2008).

Intentions to Seek Psychological Help

Many researchers have looked at this construct and defined it as the willingness to seek counseling. Based on the Theory of Reasoned Action, researchers have attempted to predict help-seeking behavior with a person's intention and attitudes in previous studies. Most of the help-seeking literature on mental health issues have utilized the *Intention of Seeking Counseling Inventory (ISIC)*; Cash, Begley, McCown, & Weise, 1975), which is comprised of three subscales for specific type of problems – drug use concerns, academic concerns, and psychological and interpersonal concerns (Nam et al., 2013). However, some studies have examined willingness to seek counseling with severity of concerns and willingness to seek counseling with the 32 item *Personal Problem Inventory (PPI)*; Gim et al., 1990), which assesses problems commonly reported by college students (Liao, Rounds & Klein, 2005).

Self-Disclosure

According to Nam et al. (2013) the representative definition of self-disclosure was defined as a process of sharing with another person one's private feelings, thoughts, and beliefs. It was used in at least four studies and the representative measure for this construct is the *Distress Disclosure Index (DDI)*; Kahn & Hessling, 2001). Previous researchers have conducted studies that (Hinson & Swanson, 1993; Kahn, et al., 2002; Vogel & Wester, 2003; Vogel et al., 2005; Komiya et al., 2000) examined the

relationship between self-disclosure and attitudes towards seeking psychological help. Most of these studies utilized the *DDI* (Kahn & Hessling, 2001) measure, which is a 12 item survey to measure one's tendencies to disclose versus conceal distressing information. Hinson and Sawanson (1993) examined the effects of problem severity, amount of self-disclosure, and self-disclosure flexibility on willingness to seek help for a problem. Self-disclosure was assessed using the *Jourard Self-Disclosure Questionnaire* (SDQ; Jourard, 1971; Brown, 1981) and the *Chelune Self-Disclosure Situations Survey* (SDSS; Chelune, 1976). However, these scales assessed overall tendency to self-disclose or general flexibility in self-disclosure patterns, respectively. The authors suggested using a different measure for future studies to focus on one's willingness to disclose to a counselor in order to measure the anticipated self-disclosure in the specific situation that one chooses to predict. Apart from the *DDI* (Kahn & Hessling, 2001) measure, some studies have also assessed perceived risks and utility of disclosing emotions. This was assessed with the *Disclosure Expectations Scale* (*DES*; Vogel & Wester, 2003), which was an eight item questionnaire designed to assess participants' expectations about the utility and risks associated with talking about an emotional problem with a counselor. Yet, this construct measured expectations of utility or risks with disclosures instead of comfort with disclosures. Self-disclosure often involves discussing emotional content. Komiya et al. (2000) noted that individuals who avoid discussing their emotions tend to have a greater stigma with psychological treatment. In fact, self-disclosure and emotional disclosure affect one's decision to seek psychological help. Therefore, this was an important psychological factor to consider in this model.

Justification for Model

Studies have examined help-seeking attitudes of students, but few studies have conducted comparisons of models between American students and Asian international students. Vogel et al. (2005) tried to identify the relationships among psychological factors (i.e. social stigma, treatment fears, self-disclosure, self-concealment, anticipated risks, anticipated utility, social norm, distress, social support, previous therapy, and sex of participant) with help-seeking attitudes, and intention to seek help. However, the application of the results is limited because specificity is lacking in relationships between the relevant psychological variables (Nam et al., 2013). Therefore, having a model that focuses on stigma – public and self, and self-disclosure would help to define the how the psychological variables are relevant to help-seeking attitudes and intention, as well as applicable to both American and Asian international students. Additionally, the inclusion of the psychological factor self-disclosure can also be viewed as a culturally variable that is essential for the hypothesized model. Self-disclosure may be challenging for some individuals. However, this is especially relevant for Asian international students because of one's adherence to Asian values that prides emotional control and maintaining the reputation of one's family and oneself (Kim, Atkinson, & Yang, 1999). Thus, revealing too much of oneself or private feelings are devalued because they are seen as violating collective harmony and dishonoring oneself and one's family (Masuda & Boone, 2011).

Problem Statement, Research Questions, and Hypotheses

Even though researchers have examined help-seeking attitudes of students, little has been found specifically in comparing the help-seeking attitudes and intentions between American and Asian international students. Also, different models have been proposed with different populations, yet, not many studies have specifically looked at

how some of the predictors may or may not be relevant for different student populations. In this study, I provided a more comprehensive view on the relations between different type of stigmas in a comparison model between American students and Asian international students to determine which variables were most salient in predicting attitudes towards seeking professional psychological help and help-seeking intentions.

With the globalization of the economy and the expanding population of college students in the United States, it was necessary to look at what agencies and universities could do to promote attitudes and behaviors to seek professional help particularly if a student is in psychological distress. Therefore, I proposed a help-seeking model in this study for American and Asian international students by building on salient factors found in the literature, as well as information from previous models, more specifically Vogel's (2007) help-seeking model. In this study, I examined how public stigma, self-stigma and self-disclosure could impact help-seeking attitudes, which in turn would influence actual help-seeking behavior.

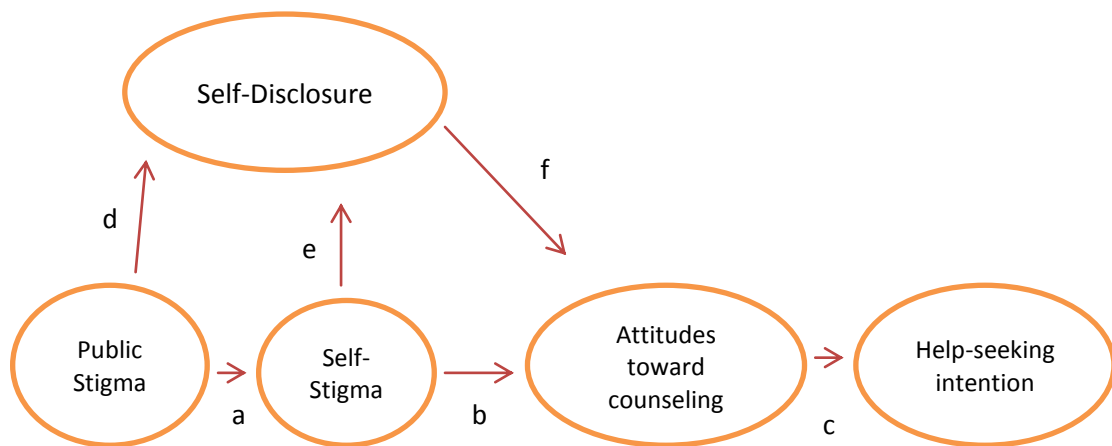
In examining relationship between the different variables, some of the mean differences hypothesized for both groups included:

- 1) Self-stigma and public stigma would be higher for Asian international students as compared to American students. Seeking psychological services from a professional is often stigmatized in traditional Asian cultures. Additionally, Eisenberg (2009) found that Asian students have highest level of personal stigma as compared to other racial/ethnic groups.
- 2) Asian international students are hypothesized to have less favorable attitudes and intentions towards seeking professional psychological help, and lesser self-

disclosure compared to non-Hispanic European American students. Uba (1994) stated that self-disclosing and revealing personal information might contradict with the cultural values of an Asian individual, which may contribute to feelings of shame for not following the cultural rules. Furthermore, since self-disclosure is a salient aspect of seeking counseling, not feeling comfortable to self-disclose would lead to a less positive attitude towards counseling, and less likelihood to seek counseling as compared to non-Hispanic European American students.

The relationships between the paths were hypothesized to be different for both Asian International students and Caucasian students. *See Figure 6.*

Figure 6. Hypothesized Model



In the proposed model, self-disclosure, public stigma, and self-stigma would predict help-seeking attitudes in Asian international students and American students. More specifically, help-seeking attitudes would predict help-seeking behaviors (path c in *Figure 4*) in both groups based on the theory of reasoned action. The theory of reasoned action also states that one of the main determinants of behavior (i.e. intentions to seek help) stems from one's attitudes (i.e. towards seeking professional psychological help).

Additionally, consistent with previous research, public stigma has predicted attitudes towards counseling (Komiya et al., 2000); however, public stigma can bring about negative internalization of stigma, which leads to self-stigma (Vogel et al., 2007). Based on this finding, self-stigma was hypothesized to mediate the relationship between public stigma and attitudes toward counseling (path a and b in *Figure 6*). Furthermore, Vogel et al. (2007) also noted that public stigma and willingness to seek counseling was fully mediated by self-stigma and attitudes towards counseling. Thus, paths a, b, and c were hypothesized in both models which was supported by Vogel's et al. (2007) proposed help-seeking model.

Additionally, the inclusion of the self-disclosure variable will predict attitudes towards counseling based on findings of previous researchers (Hinson & Swanson, 1993; Kahn et al., 2002; Vogel & Wester, 2003; Vogel et al., 2005). Self-disclosure will be positively related to attitudes towards seeking help. Hence, a direct path between self-disclosure and attitudes towards counseling will be tested (path f in *Figure 6*). However, in the hypothesized model for Asian international students, both public stigma and self-stigma will predict self-disclosure. Because of the stigma of seeking mental health services in the Asian cultural context, both public and self-stigma will likely predict the likelihood of self-disclosure in their behavior (path d and e in *Figure 6*), which in turn predicts their attitudes towards counseling (path f in *Figure 6*). Self-disclosure may be perceived as a loss of face for an Asian international student, and it will have a negative relationship with attitudes toward counseling. Hence, public stigma, self-stigma, and self-disclosure will all predict attitudes towards counseling, which will then predict help-seeking intentions (path c in *Figure 6*).

For the model for the Euro-American students, self-stigma will have a strong negative relationship with self-disclosure and will be more salient because of the cultural context of individualism. Hence, there will be a direct path from self-stigma to self-disclosure (path e in *Figure 6*) that will then lead to attitudes towards counseling and help-seeking intentions (path c in *Figure 6*). Additionally, public stigma is hypothesized to have a weak relationship with self-disclosure (path d in *Figure 6*) for this population because the influence of one's social group may not be as relevant as self-stigma in predicting self-disclosure for this group.

CHAPTER 3

METHOD

Procedures and Recruitment

After approval from the Institutional Review Board was obtained (refer to Appendix C), students enrolled in a large state university in the Southwest United States were recruited. A cover letter (refer to Appendix B) that described the study and level of involvement required of participants were also provided online. Data collection was conducted through an online-survey designed to measure the aforementioned variables. Invitational e-mails were distributed to listservs, instructors, program coordinators, student organizations and through contacts obtained from the university directory which was made available by the Institutional Analysis office. The Institutional Analysis office, an office that reports needs, support planning and decision-making through data collected from the university, provided e-mail contacts of 6882 international students at the university upon IRB approval. Additionally, professors were contacted to distribute this study recruitment email to their students and offer extra credits for students who completed the study. Participants were also informed that their participation was voluntary, anonymous, and would not affect their grade.

Apart from offering extra credit opportunities as an incentive for participation in some classes, participants who did not receive course credit were invited to participate in a lottery to win a US\$25 gift certificate from Amazon. Upon completing the survey, participants who were interested in the lottery were asked to email the principal investigator their email addresses. This information was not linked to the participants' data in order to maintain confidentiality. The researcher was awarded a research grant

from the Graduate and Professional Student Association at the researcher's university to cover incentive costs for the gift certificates for participants.

Participants

Participants were limited to students who were enrolled in universities in the Southwest and students from other regions were excluded from the final analysis. This was because majority of the students were from the Southwest region and it was to prevent issues with confounds. As this was a study looking at group comparisons and that majority of the international students were from Asia compared to other regions of the world, the sample analyzed was further restricted to South Asian and East Asian international students. The group of Asian students was categorized to South Asian and East Asian students, because of the likelihood of within-group differences in help-seeking behaviors for these samples. The final sample analyzed in this study consisted of eight hundred and six college students, who were enrolled in Southwestern universities, and identified as American, South Asian, and East Asian students (*Table 1*).

For the American student sample, there were 308 participants, of which 37% were males and 62% were females. The mean age of this sample was 22.04 years ($SD = 5.07$) and the majority of participants identified as Caucasian (62.5%), followed by Hispanic (18.2%), Asian American (5.5%), African American (4.2%), Mixed race (4.9%) and others (1.6%). With regards to the educational background of participants, 87.8% were pursuing a bachelor's degree, 4% were pursuing a master's degree, 7% were pursuing a doctorate or higher degree, and 1.3% were pursuing other certification. In addition, 16.2% of the students were in their first year of the program, 35.7% were in the second year, 28.2% in the third year, and 19.8% in fourth year and beyond of their program.

Among the American students, 28.2% had experiences with professional counseling services and 71.8% had not sought professional counseling services on campus or elsewhere. Also, 19.5% indicated that they were very aware of counseling services on campus, whereas 16.6% noted that they were not aware of any counseling services on campus.

Three hundred and eight participants who identify as South Asian students and had Indian citizenship (73% males, 27% females) ranged in age from 18 to 33 years of age ($M = 23.99$, $SD = 2.21$) participated in this study. Majority of the students from this sample were pursuing graduate level programs, master's degree (85.4%), doctoral and above (9.6%), bachelor's degree (4.3%), and other certification (0.7%). In addition, 40.6% were in the first year of their program, 50.6% were in their second year, 3.9% were in their third year and 4.9% were in fourth year and above in their program. Among the South Asian students, 16.2% had previous experiences with counseling services and 83.8% had not sought counseling services on campus or elsewhere, with 7.1% of this student population who reported that they were very aware of counseling services on campus and 18.2% who indicated that were unaware of counseling supports.

Data were also gathered from 190 participants who identified as East Asian students from China (73.7%), South Korea (16.3%), Japan (2.6%), Taiwan (6.3%), Hong Kong and Macau (1.1%). For this sample of East Asian students (48% males, 52% females), their age ranged from 18 to 46 years of age ($M = 24.76$, $SD = 5.49$). Regarding their educational level and background, 41.7% were working towards a bachelor's degree, 28.9% towards a master's degree, 28.4% doctoral degree and above, and 1.1% other certification. For the students in this population, 34.2% were in their first year,

38.5% in their second year, 15.8% in their third year and 14.2% in their fourth year and beyond. Also, 30.5% of these students had previously sought counseling on campus or elsewhere, and 69.5% expressed that they had not sought counseling before. East Asian students who indicated they were very aware of counseling services were 11.1% and 22.1% in this sample expressed that they were unaware of counseling services on campus.

Table 1
Descriptive demographics of participants

	Americans <i>N</i> = 308	South Asians <i>N</i> = 308	East Asians <i>N</i> = 190
Mean Age	22.04 years	23.99 years	24.76 years
Gender	Males = 37%; Females = 62%	Males = 73%; Females = 27%	Males = 48%; Females = 52%
Education	Bachelor's = 87.8%; Master's = 4%; Doctorate and above = 7%; Other Certification = 1.3%	Bachelor's = 4.3%; Master's = 85.4%; Doctorate and above = 9.6%; Other Certification = 0.7%	Bachelor's = 41.7%; Master's = 28.9%; Doctorate and above = 28.4%; Other Certification = 1.1%
Country of citizenship	North America	India	China = 73.7%; S. Korea = 16.3%; Japan = 2.6%; Taiwan = 6.3%; Hong Kong and Macau = 1.1%
Range of length of time in the U.S.	Not applicable	2 mths to 7 yrs and 8 mths	4 mths to 7 yrs

Measures

Perceived Public Stigma. The Social Stigma for Receiving Psychological Help Scale (SSRPH; Komiya et al., 2000) was used to assess public stigma and how individuals perceive the stigma associated with seeking psychological help. This scale consisted of four Likert-type items that ranged from 1 (strongly disagree) to 4 (strongly

agree). Higher scores referred to greater perceived stigma. A sample item from the scale included, “People tend to like less those who are receiving professional psychological help.” Prior studies have obtained an internal consistency coefficient alpha of .83 in previous samples (Vogel et al., 2007). A unidimensional scale was established with a one-factor solution and the internal consistency coefficient alpha for SSRPH was .72. Vogel et al. (2005) reported the internal consistency coefficient alpha of .78 in another study. Additionally, construct validity was established when the SSRPH was found to correlate negatively to attitudes towards seeking professional psychological help ($r = -.40$, $p < .001$) (Komiya et al., 2000). For the current study, the Cronbach alphas for Americans, South Asians, and East Asians were .71, .72, and .81 for the respective groups.

Self-Stigma. Self-stigma of Seeking Help Scale (SSOSH; Vogel et al., 2013) was a revised 10 item Likert scale from Self-Stigma of Seeking Help scale (SSOH; Vogel, Wade, & Haake, 2006). It ranged from 1 (strongly disagree) to 5 (strongly agree), which measured self-stigma associated with seeking counseling or psychological help. It had a unidimensional factor structure. Higher scores on the scale represent higher self-stigma. It consisted of items such as “I would feel inadequate if I went to a therapist for psychological help.” In previous studies, the internal consistency estimate was .89 (Vogel et al., 2007). More recently, when this revised scale had also been cross-culturally across six different countries –England, Greece, Israel, Taiwan, Turkey and the U.S., the Cronbach alphas ranged from .77 to .89 (Vogel et al., 2013).

Construct validity was established by evaluating the correlations between SSOSH total scores and DES Anticipated Risks, and Anticipated Benefits scale and public

stigma. Scores on the SSOSH were positively associated with scores on the DES Anticipated Benefits, and public stigma, but negatively associated with DES anticipated risks (Vogel et al., 2006). In addition, criterion validity for SSOSH was supported with negative correlations of attitudes towards seeking professional help and intent to seek counseling (Vogel et al., 2006). The authors also found predictive validity when the SSOSH scale differentiated those who sought psychological services from those who did not seek services over a 2-month period. For this study, as international participants were included in the sample, some wordings of the items were changed to clarify the meaning for participants. The term “therapist” was changed to “professional counselor” and the term “professional help” was changed to “professional counseling.” The Cronbach alphas for Americans and South Asians were .85 and .76 in this study.

Attitudes toward seeking professional help. Attitudes Towards Seeking Professional Psychological Help-Short (*ATTSPH-S*; Fischer & Farina, 1995) was a 10 item revised instrument used to measure attitudes towards seeking psychological help. This scale included 5 reverse coded items. It was a shortened version of the original 29 item scale (Fischer & Turner, 1970). Sample items include “I would want to get psychological help if I were worried or upset for a long period of time.” Items ranged from (1) *disagree* to (4) *agree*, higher scores indicated more positive attitudes towards seeking psychological help. Strong support for the psychometric properties for this scale was also found (Fischer and Farina, 1995). Test-retest reliability indicated that the correlation between the new and old version of the scale with a 1-month interval between tests was .87. The internal consistency of the scale was found to be $\alpha = .81$ (Shaffer, et al., 2006) and $\alpha = .75$ on a sample of Asian international students (Yakunina & Weigold,

2011). For this scale, the term “psychological help” was labeled as “professional counseling” to clarify the meaning for participants.

Intentions to Seek Counseling Inventory. The Intentions to Seek Counseling Inventory (*ISCI*; Cash, Begley, McCoen, & Weise, 1975) was used to assess problems for which students were likely to seek counseling. This was a 17 item measure whereby respondents rated how likely they would seek counseling if they were experiencing each problem. These problems included relationship difficulties, depression, personal worries, drug use, and academic problems. Scores ranged from 17 to 68 with a higher score indicating higher likelihood of seeking counseling. Previous studies (Kelly & Achter, 1995) have found the ISCI to correlate with general attitudes towards seeking psychological help and perceived significance of current problem. The Cronbach alpha for the 17 items ranged from .84 to .90 (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Leech, 2007). Previous studies had shown the internal consistencies of the various subscales for psychological interpersonal concerns, academic concerns, and drug use was .90, .71, and .86, respectively (as cited in Vogel et al., 2007) and .86 for the psychological interpersonal concerns subscale on Asian international students (Yakunina & Weigold, 2011). For this study, only the subscale for psychological interpersonal concerns was examined for the various populations. The Cronbach alphas were .88 for Americans, .85 for South Asians, and .89 for East Asians. All measures were administered in English.

Analysis

For the final sample used in this study, 97% ($N= 806$) had no missing values among the variables examined and 3% ($N= 21$) had 10 items or more missing. Missing

observations were assessed using Little's Missing Completely at Random (MCAR) test through SPSS 22. A non-significant result ($\chi^2[25] = 34.600, p = .096$) indicated that the data are missing at random. Following this, full information maximum likelihood (FIML) was used for all modeling analyses. FIML is an estimation method that utilized all available information from the data to estimate model parameters and standard errors simultaneously to maximize the log-likelihood that the data were drawn from the population examined (Kline, 2010).

As identical measures were utilized to measure public stigma, self-stigma, attitudes towards seeking professional psychological help, and intentions to seek counseling for American, South Asian and East Asian students, there was a need to assess measurement invariance across the three groups prior to assessing any structural relations. Hence, confirmatory factor analysis for each measure was first examined. However, if the measures did not have a good fit for some of the scales for the group, exploratory factor analysis was then conducted to assess factor structure for each group. Models were then established for each group using structural equation modeling (SEM) to examine effects of structural relations.

All analyses were done using the MPLUS Version 6.11 software package (Muthen & Muthen, 2007) to assess the proposed measurement and structural model for each sample. The researcher illustrated the model specification, model estimation and evaluation of fit and comparison of nested model for Americans, South Asians, and East Asian students specifically in the following chapter. Observed variables at item level were used as indicators of latent constructs for each variable. Maximum likelihood (ML) estimation was a recommended estimation due to its robustness and estimates based on

minimizing the maximum likelihood function are most popular among latent variable modelers. The maximum likelihood analysis finds parameter values that have the greatest probability of reproducing the sample data in a population based on a probability density function (Enders, 2010). Furthermore, ML estimates tended to be efficient in which estimates are minimally variable across repeated random samples with fixed sample size; consistent because the probability that the estimate approximates the population parameters increase with increasing sample size, and unbiased because the average estimates over repeated random samples with fixed sample size equal the population parameter. ML estimation method is the most widely used analysis method for continuous outcomes for SEM analysis. However, the following assumptions of independent observations, large sample size, correctly specified model and multivariate normality must be met (Kline, 2010). In situations when there is non-normality of continuous variables in the data, another robust estimator, MLR, which is maximum likelihood estimator with robust standard errors was utilized. This maximum likelihood parameter was able to estimate with standard errors and produces a chi-square test statistic that is robust to non-normality. This MLR chi-square statistic is asymptotically equivalent to the Yuan-Bentler T2*test statistic (Yuan & Bentler, 2000).

The distributional properties of the variables were assessed to evaluate whether multivariate normality assumption was met. By reviewing the skewness and kurtosis statistics through SPSS 22.0, and using the normal range of kurtosis and skewness of greater than -1 and less than +1, only one item, item 7, for the self-stigma measure in East Asians did not meet this criteria, because the value was 1.16 for skewness and 1.74 for kurtosis. All variables for the different groups fit within the range of normality for

kurtosis and skewness. Hence, MLR was used as the non-normality robust estimator for the following analyses.

Both global and local (residuals) fit indices were utilized to draw conclusions on the factor structure and assess the ability of the model to reproduce data. These global fit indices included the chi-square goodness of fit, the comparative fit index (*CFI*), the standardized root mean squared residual (*SRMR*), and the root mean squared error of approximation (*RMSEA*) with 90% confidence to assess the goodness of fit of a model (Hu & Bentler, 1999; Kline, 2010). Hu and Bentler (1999) suggested the comparative fit index (*CFI*; .95 or greater suggests good fit), the root-mean-square error of approximation (*RMSEA*; .06 or less), the standardized root-mean-square residual (*SRMR*; .08 or less), incremental fit index (*IFI*; .95 or greater), and the Tucker Lewis Index (*TLI*; .95 or greater). In cases when assumptions of normality were violated, robust estimation methods were used to correct for the accuracy of these fit indices.

CHAPTER 4

RESULTS

In this chapter, I will report the findings from the various analyses. For the preliminary analyses, measurement invariance of the scales – public stigma, self-stigma, attitudes towards seeking professional psychological help, and intentions to seek counseling was assessed for the different samples. Following that, exploratory factor analysis was conducted for scales that indicated a two-dimensional construct versus one-dimensional construct. Factors were then deduced based on the results for the different samples. Once the factors were finalized for each group, the means, standard deviations, and correlations for each construct was reported for each group. Lastly, the measurement model and the final model for Americans, South Asians and East Asians were established.

Preliminary Analysis

In order to examine measurement invariance across the constructs, confirmatory factor analysis was conducted on the four constructs for American students, South Asian international students and East Asian international students respectively. Sixteen confirmatory factor analyses were conducted to assess for the 1 factor dimension construct for each of the measures on each sample (*Table 2*).

Table 2

*Summary of Goodness-of-Fit Indices for CFA Models- 1 factor structure for each scale
Public Stigma*

One-factor structure	χ	<i>df</i>	<i>CFI</i>	<i>SRMR</i>	<i>TLI</i>	<i>RMSEA</i> (90% CI)
Americans	65.77*	5	0.726	0.068	0.451	0.199 (0.158, 0.243)
South Asians	2.01	5	1.00	0.015	1.040	0.000 (0.000, 0.044)
East Asians	1.19	5	1.00	0.013	1.046	0.000 (0.000, 0.015)

Self-Stigma

One-factor structure	χ^2	<i>df</i>	<i>CFI</i>	<i>SRMR</i>	<i>TLI</i>	<i>RMSEA</i> (90% CI)
Americans	102.10*	35	0.885	0.059	0.852	0.079 (0.061, 0.097)
South Asians	105.95*	35	0.827	0.076	0.778	0.081 (0.064, 0.099)
East Asians	294.07*	35	0.490	0.181	0.344	0.197 (0.177, 0.219)

Attitudes towards Seeking Professional Counseling

One-factor structure	χ^2	<i>df</i>	<i>CFI</i>	<i>SRMR</i>	<i>TLI</i>	<i>RMSEA</i> (90% CI)
Americans	129.66*	35	0.806	0.073	0.751	0.094 (0.077, 0.111)
South Asians	176.23*	35	0.594	0.113	0.478	0.114 (0.098, 0.132)
East Asians	148.88*	35	0.692	0.110	0.604	0.131 (0.110, 0.153)

Table 2 Continued
Intentions to Seek Help

One-factor structure	χ^2	<i>df</i>	<i>CFI</i>	<i>SRMR</i>	<i>TLI</i>	<i>RMSEA</i> (90% CI)
Americans	55.62*	35	0.974	0.034	0.967	0.044 (0.020, 0.065)
South Asians	72.46*	35	0.939	0.047	0.921	0.060 (0.040, 0.080)
East Asians	81.473*	35	0.917	0.053	0.893	0.085 (0.061, 0.110)

Based on the results conducted in MPLUS, the initial confirmatory factor analysis indicated only indicated good fit for the public stigma scale for both South Asians (*CFI*= 1.00, *SRMR*= 0.015, and *RMSEA* = 0.00 [0.000- 0.044]) and East Asians students (*CFI*= 1.00, *SRMR*= 0.013, and *RMSEA* = 0.00 [0.000- 0.015]). Additionally, for the intentions to seek professional help scale also noted good fit for American students (*CFI* = 0.974, *SRMR*= 0.034, and *RMSEA* = 0.044 [0.020- 0.065]) and adequate fit for South Asian students (*CFI*= 0.939, *SRMR*= 0.047, and *RMSEA* = 0.060 [0.040- 0.080]). The one factor model indicated poor fit to the data for the following scales: public stigma for Americans, self-stigma for Americans, South Asians and East Asians, attitudes towards seeking professional psychological help for Americans, South Asians and East Asians, and intentions to seek professional counseling for East Asians. Thus, this showed that the measures do not have configural invariance for the different samples, and exploratory factor analysis was utilized to assess for dimensional constructs for those scales that do not have a good fit for the respective samples.

Exploratory factor analysis was used to determine the number of factors and to examine constructs with the respective samples. These variables included the public stigma scale for Americans, the self-stigma scale across all samples, the attitudes towards

seeking professional psychological help scale across all samples and the intentions to seek professional counseling scale for East Asians. According to Costello and Osborne (2005) on best practices in exploratory factor analysis, principal axis factoring was recommended as a factor extraction method. Additionally, scree plots determined the number of factors to be retained, followed by rotation to examine each of the scales stated above.

The initial confirmatory factor analysis conducted in MPLUS reported that public stigma for Americans ($CFI = .726$, $SRMR = 0.068$, and $RMSEA = 0.199$ [0.158- 0.243]), self-stigma for Americans ($CFI = .885$, $SRMR = 0.059$, and $RMSEA = 0.079$ [0.061- 0.097]), self-stigma for South Asians ($CFI = .827$, $SRMR = 0.076$, and $RMSEA = 0.081$ [0.064- 0.099]) and intention to seek professional counseling for East Asians ($CFI = .917$, $SRMR = 0.053$, and $RMSEA = 0.85$ [0.061- 0.110]) did not have a good fit to the data, based on the cut-off criteria for CFI being .95 or higher and RMSEA being .06 or lower (Hu & Bentler, 1999). However, when exploratory factor analysis was conducted using principal axis factoring on these scales, the scree plot indicated a one-factor structure. Furthermore, based on best practices in exploratory factor analysis, apart from having more than three items for a factor as a recommended practice as a stable factor, all factor loadings for the one factor structure were above .32, which is the minimum loading that an item should have for the scale (Costello & Osborne, 2005). Hence, the one-factor solution for these scales was retained.

However, the one-factor solution was not retained for the following scales in these different samples: self-stigma for East Asians, attitudes for seeking psychological help for Americans, South Asians and East Asians based on exploratory factor analyses.

Hence, by using principal axis factoring and assessing the results of the scree plot, the number of factors to be extracted was determined. The factorability of the 10 self-stigma items was examined for East Asians. The Kaiser-Meyer-Olkin measure of sampling adequacy was .81, and the Barlett's test of sphericity was significantly ($\chi^2(45) = 724.27$, $p < .05$). Factor loadings of the items using promax rotation indicated a 2-factor solution matrix which showed that items 1, 3, 6, 8, 10 contributed to one factor and items 2, 4, 5, 7, 9 contributed to another factor (*Table 3*). I utilized oblique (promax rotation) because theoretically, the items were expected to correlate based on the structure of the self-stigma construct. Furthermore, the factor correlation coefficient was .01 for the 2 factors, which indicated that the factors had a negligible relationship. This implied that even though items in the second factor were all reverse-coded items, it was not an issue of response set but a separate way of responding for this particular population.

Based on the factor loadings on self-stigma for East Asian students, there appeared to be two separate constructs. One of the factors is on negative feelings of choice to seek professional help and the other factor is on perceptions of self-worth when asking for professional help. Items for negative feelings of choice in seeking professional help stem from one's feeling in making the decision to seek professional counseling instead of being able to solve the problem by oneself, whereas items for the other construct focused on the core reflection of oneself, typically referring to one's self-esteem, self-confidence when one asked for professional help. This distinction could have resulted because expression of one's feelings may be seen as separate from self. Hence, the wording of the self-stigma items may be interpreted differently for this particular population.

Table 3

Factor loadings of structure matrix based on a principal axis factoring with promax rotation for the Self-Stigma Scale for East Asians

	Negative feelings of choice in seeking professional help	Perceptions of unworthiness when asking for professional help
1. I would feel inadequate if I went to a professional counselor for counseling.	.80	-.02
2. My self-confidence would NOT be threatened if I sought counseling.	.20	.74
3. Seeking counseling would make me feel less intelligent.	.87	.03
4. My self-esteem would increase if I talked to a professional counselor.	-.19	.46
5. My view of myself would not change just because I made the choice to see a professional counselor.	-.12	.54
6. It would make me feel inferior to ask a professional counselor for help.	.70	-.01
7. I would feel okay about myself if I made the choice to seek counseling.	.14	.85
8. If I went to a professional counselor, I would be less satisfied with myself.	.78	.00
9. My self-confidence would remain the same if I sought counseling for a problem I could not solve.	-.07	.64
10. I would feel worse about myself if I could not solve my own problems.	.37	-.35
Eigenvalues	3.19	2.74
Percent variance post rotation	27.69%	22.78%

Note. Factor loadings of where items belonged are boldfaced.

Similarly, for attitudes for seeking psychological help for American students, factor analysis results indicated a 2-factor structure based on the scree plot. Upon using

principal axis factoring, the Kaiser-Meyer-Olkin measure of sampling adequacy was .83, and the Barlett's test of sphericity was significantly ($\chi^2(45) = 716.02, p < .01$).

According to the results with promax rotation, factor loadings indicated that factor one consisted of item 1, 3, 5, 6, 7, and factor two comprised of items 2, 4, 8, 9, 10 (see *Table 4*). The correlation between the two factors was .53 which indicated a large effect size between these factors. Even though item 2 could also be in factor 1, the wording of the item seemed to belong to factor 2 which seemed to highlight general attitude versus being proactive in getting professional help for the self.

Based on results from the loadings and meaning of the items, there appeared to be two separate constructs. Additionally, the original 29 item scales in which these items belonged were from 2 separate subscales – recognition of need for psychotherapeutic help and confidence in mental health practitioner (Fischer & Turner, 1970). Factor 1 was labeled as active professional help-seeking and factor 2 was labeled as general help-seeking attitudes. Active professional help-seeking was defined as one's willingness to put action into doing something to get the professional psychological help especially when one is experiencing crisis. All the items on this scale implied that the individual is proactive and is more action-oriented in getting the professional counseling when they need or want to including situations when they are experiencing high distress level. In contrast, for the other factor, known as the general help-seeking attitudes focused on one's general opinion of seeking professional help in general and is connected to a hypothetical event of an idea or opinion, rather than what the individual would act upon. For instance, in item 2, "the idea of talking about problems with a professional counselor strikes me as a poor way to get rid of emotional conflicts" and item 9, "a person should

work out his or her own problems; getting professional counseling would be a last resort.” These items are assessing opinions of what a person should behave.

Table 4

Factor loadings of structure matrix based on principal axis factoring with promax rotation from Attitudes towards Seeking Professional Psychological Help Scale for American students.

	Active professional help-seeking	General help-seeking attitudes
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	.54	.31
2. The idea of talking about problems with a professional counselor strikes me as a poor way to get rid of emotional conflicts.	.57	.57
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in professional counseling.	.73	.37
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts without resorting to professional counseling.	.08	.47
5. I would want to get professional counseling help if I were worried or upset for a long period of time.	.70	.28
6. I might want to have professional counseling in the future.	.62	.33
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional counseling.	.44	.18
8. Considering the time and expense involved in professional counseling, it would have doubtful value for a person like me.	.45	.53
9. A person should work out his or her own problems; getting professional counseling would be a last resort.	.42	.81
10. Personal and emotional troubles, like many things, tend to work out by themselves.	.30	.50
Eigenvalues	3.53	1.46
Percent variance post rotation	29.48%	8.61%

Note. Factor loadings of where items belonged are boldfaced.

Similarly, the factorability of the 10 Attitudes Towards Seeking Professional Psychological Help items was examined for South Asian students. Based on results from the scree plot, a two-factor structure was revealed. The Kaiser-Meyer-Olkin measure of sampling adequacy was .76, and the Barlett's test of sphericity was significantly ($\chi^2(45) = 534.61, p < .01$). Factor loadings of the item using promax rotation indicated a 2-factor solution matrix indicating how factor 1 comprised of items 1, 3, 5, 6, 7 and factor 2 consisted of items 2, 4, 8, 9, 10 (*Table 5*). Furthermore, the factor correlation coefficient was .06 for the 2 factors, which indicated that the factors had a negligible relationship.

Based on results from the loadings and meaning of the items, there appeared to be two separate constructs similar to American student population. The factors loadings for the different items were similar in the South Asian student population. Hence, factor 1 was labeled as active professional help-seeking and factor 2 was labeled as general help-seeking attitudes. Active professional help-seeking was defined as one's willingness to put action into doing something to get the professional psychological help especially when one is experiencing a challenging situation. Items on this scale indicated that the individual is proactive in getting the professional counseling they need or want. On the other hand, the general help-seeking attitudes focused on one's general opinion of seeking professional psychological help this is typically connected to a hypothetical event of an idea or opinion. South Asians may view having one's belief or opinion versus acting upon for oneself as two separate entities. For instance, one may have an opinion that talking to a professional counselor is a good way of finding relief, yet, one may not necessarily act upon this for oneself if one needs to seek professional psychological help.

Table 5

Factor loadings of structure matrix based on a principal axis factoring with promax rotation from Attitudes towards Seeking Professional Psychological Help Scale for South Asian students.

	Active professional help-seeking	General help-seeking attitudes
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	.63	.06
2. The idea of talking about problems with a professional counselor strikes me as a poor way to get rid of emotional conflicts.	.09	.55
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in professional counseling.	.77	.11
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts without resorting to professional counseling.	-.14	.53
5. I would want to get professional counseling help if I were worried or upset for a long period of time.	.61	-.05
6. I might want to have professional counseling in the future.	.52	-.02
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional counseling.	.55	.07
8. Considering the time and expense involved in professional counseling, it would have doubtful value for a person like me.	.10	.49
9. A person should work out his or her own problems; getting professional counseling would be a last resort.	.07	.51
10. Personal and emotional troubles, like many things, tend to work out by themselves.	.01	.55
Eigenvalues	2.58	2.10
Percent variance	19.90%	13.85%

Note. Factor loadings of where items belonged are boldfaced.

Lastly, the ATSP scale for East Asians was also examined and the scree plot indicated a 2-factor structure. The factorability of the 10 items on this scale was examined using principal axis factoring. Results showed that the Kaiser-Meyer-Olkin

measure of sampling adequacy was .81, and the Barlett's test of sphericity was significantly ($\chi^2(45) = 504.95, p < .01$). Additionally, factor loadings of the item using promax rotation indicated a 2-factor structure matrix which showed that items 1, 3, 4, 5, 6, 7 contributed to one factor and items 2, 8, 9, 10 were attributed to another factor (*Table 6*). The correlation coefficient was -.33 for the 2 factors, which indicated that the factors had a negative relationship with moderate effect size for East Asian students.

Similarly, the results of the factor loadings indicated two constructs that were similar to the American and South Asian student population. The first factor was labeled as active professional help-seeking and the second factor was named general help-seeking attitudes. Active professional help-seeking referred to one's willingness to be proactive in getting the professional psychological help especially when one is experiencing distress. Items on this scale indicated that the individual is willing to get the professional counseling they need or want. For the other factor, the general help-seeking attitudes scale, items focused on one's general opinion of seeking professional psychological help, which is typically connected to a hypothetical idea. A point to note for the East Asian population is that all the items lined up according to the active professional help-seeking factor and the general help-seeking attitudes in the same way as the American population and the South Asian population except for item 4. This item stated "there is something admirable in the attitude of a person who is willing to cope with his or her conflicts without resorting to professional counseling" which fell under the active professional help-seeking factor instead of the impersonal attitudes towards seeking professional help. This item may have load differently for this population because for East Asians, it may be a part of themselves that feel this way because of the

valuing of independence to solve problems without professional help. Hence, not resorting to professional counseling may be interpreted as an active form of coping with problems rather than an impersonal opinion. Additionally, for East Asian students, general help-seeking attitudes was negatively related to active professional help-seeking which implied that even though an individual may have a negative opinion of seeking help, the individual would still seek help actively when one wants or needs.

Table 6
Factor loadings of structure matrix based on a principal axis factoring with promax rotation for 10 items from Attitudes towards Seeking Professional Psychological Help Scale for East Asian students.

	Active Professional Help-Seeking	General help-seeking attitudes
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	.69	-.21
2. The idea of talking about problems with a professional counselor strikes me as a poor way to get rid of emotional conflicts.	-.19	.53
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in professional counseling.	.74	-.18
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts without resorting to professional counseling.	-.41	.35
5. I would want to get professional counseling help if I were worried or upset for a long period of time.	.73	-.23
6. I might want to have professional counseling in the future.	.59	-.17
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional counseling.	.57	-.31
8. Considering the time and expense involved in professional counseling, it would have doubtful value for a person like me.	-.29	.59

Table 6 Continue

9. A person should work out his or her own problems; getting professional counseling would be a last resort.	-.07	.75
10. Personal and emotional troubles, like many things, tend to work out by themselves.	-.37	.71
Eigenvalues	3.49	1.81
Percent variance	29.23%	12.95%

Note. Factor loadings of where items belonged are boldfaced.

Following this, confirmatory structure analysis for each scale was conducted separately for each group. Owing to the lack of measurement invariance, the relations of the constructs were examined in each group separately based on the new constructs and path analysis for the model was examined for each group. The means, standard deviations, Cronbach alphas and correlations among all the variables for the different groups were presented (*Table 7*). Additionally, the internal consistencies of each scale ranged from .60 to .89.

Table 7
Means, Standard Deviations, Coefficient Alphas, and Intercorrelations among Predictors and Criterion Variables for American Students, South Asia Students and East Asian Students

Measure for Americans	1	2	3	4	5	Score Limit	M	SD	α
1. Public Stigma						1-5	2.13	.50	.71
2. Self-Stigma	.45**					1-4	2.38	.64	.85
3. General help-seeking attitudes	-.35**	-.42**				1-4	2.70	.52	.71
4. Active Professional Help-Seeking	-.27**	-.44**	.43**			1-4	2.70	.54	.74
5. Intentions to Seek Counseling	-.03	-.14*	.22**	.42**		1-4	2.24	.62	.88
<hr/>									
Measure for South Asians	1	2	3	4	5	Score Limit	M	SD	α
1. Public Stigma						1-5	2.16	.48	.72
2. Self-Stigma	.42**					1-4	2.47	.52	.76
3. General help-seeking attitudes	-.37**	-.24**				1-4	2.45	.44	.65
4. Active Professional Help-Seeking	-.03	-.22**	.04			1-4	2.56	.50	.75
5. Intentions to Seek Counseling	-.01	-.17**	.04	.37**		1-4	2.19	.58	.85

Table 7 Continue

Measure for East Asians	1	2	3	4	5	6	Score Limit	<i>M</i>	<i>SD</i>	α
1. Public Stigma							1-5	2.21	.57	.81
2. Negative feelings of choice to seek Professional Help	.66**						1-4	2.49	.80	.83
3. Perceptions of unworthiness when asking for professional help	-.13	-.11					1-4	2.52	.71	.77
4. General help-seeking attitudes	-.51**	-.54**	.29**				1-4	2.54	.50	.73
5. Active Professional Help-Seeking	.25**	.10	-.56**	-.34**			1-4	2.70	.54	.60
6. Intentions to Seek Counseling	.21**	.11	-.28**	-.04	.34**		1-4	2.23	.63	.89

Model for American Students

The measurement model for American students indicated adequate fit ($S-B\chi^2(550) = 968.543$, $CFI = 0.860$, $SRMR = 0.066$, and $RMSEA = 0.050$ [0.045- 0.055]). The factor loadings on all indicator variables were significant and ranged from .29 to .76. All standardized parameter estimates and error from the measurement model were presented in Table 8. Following this, the full structural model for American students was examined.

Table 8
Standardized Parameter Estimates of Measurement Model for American Students

Latent and Observed Variables	Factor Loading	Error Variance
Public Stigma		
PS1	.49	.07
PS2	.67	.05
PS3	.61	.07
PS4	.73	.05
PS5	.32	.10
Self-Stigma		
SS1	.72	.04
SS2	.72	.05
SS3	.72	.04
SS4	.30	.07
SS5	.58	.06
SS6	.67	.06
SS7	.67	.06
SS8	.71	.06
SS9	.41	.07
SS10	.46	.05
General help-seeking attitudes		
ATSP2	.76	.05
ATSP4	.29	.11
ATSP8	.57	.06
ATSP9	.63	.07
ATSP10	.48	.06
Active Professional Help-Seeking		
ATSP1	.55	.06
ATSP3	.74	.04
ATSP5	.69	.05
ATSP6	.64	.05
ATSP7	.41	.07

Table 8 Continued

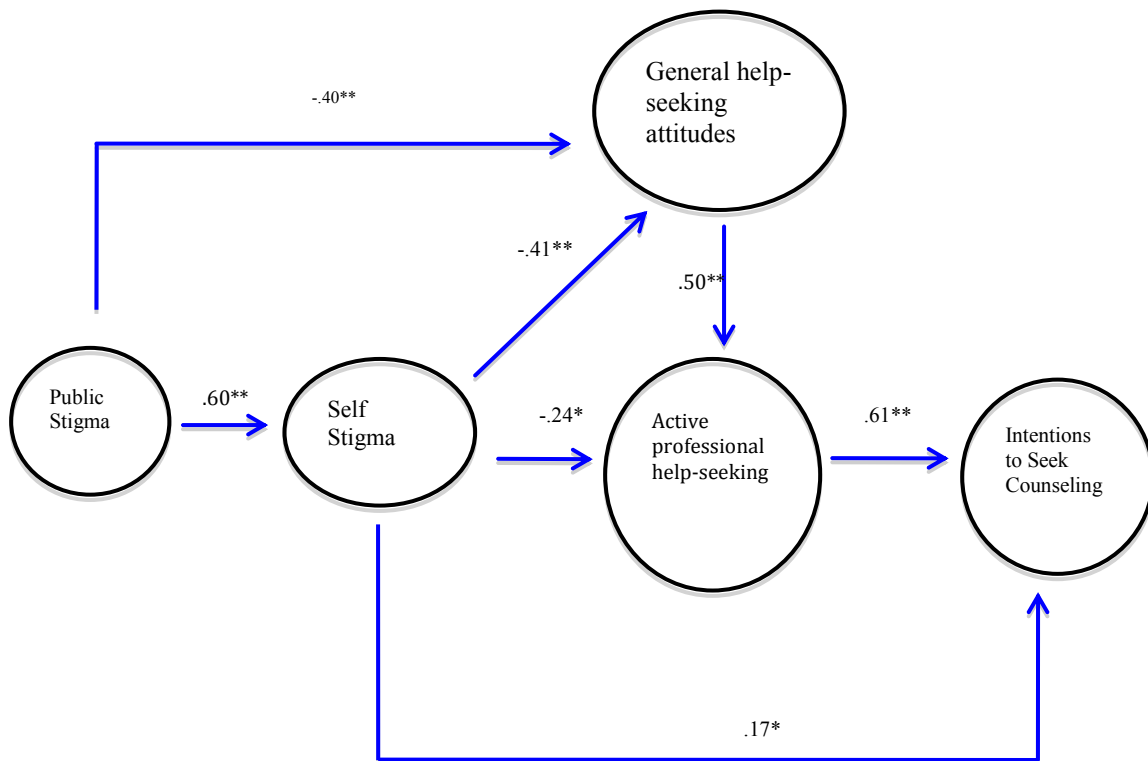
Intentions to Seek Counseling		
INT1	.72	.04
INT2	.57	.05
INT3	.63	.04
INT4	.72	.04
INT5	.62	.05
INT6	.35	.06
INT7	.77	.04
INT8	.58	.05
INT9	.72	.05
INT10	.76	.03

When examining the full structural model, a stepwise procedure was utilized, in order to assess how this model applied differently with the new factors for American students. All possible paths were freely estimated similar to the measurement model followed by paring down of non-significant paths until it fits as well as the measurement model to assess for a parsimonious model. Figure 1 depicted the final structural model for American students representing only the latent variables, which noted good fit (S-B χ^2 (553) = 939.27, *CFI* = 0.86, *SRMR* = 0.049, and *RMSEA* = 0.049 [0.044- 0.055]). All paths were significant and the robust chi-square difference test indicated was not significantly different from the measurement model (S-B $\Delta \chi^2$ (2) = 1.82, $p > .05$). Thus, this indicated that the models fit the data similarly.

There were 7 significant paths in the final structural model. These paths included the path between public stigma and self-stigma, the path between public stigma and general help-seeking attitudes, the path between self-stigma and general help-seeking attitudes, the path between self-stigma and active professional help-seeking, the path between self-stigma and intentions to seek counseling, the path between general help-seeking attitudes and active professional help-seeking, and the path between active professional help-seeking and intentions to seek counseling. The significant paths with

standardized estimates were outlined in Figure 7. This figure highlighted the different roles played by the new factors. For example, how active professional help-seeking contributed to intentions to seek counseling but not general help-seeking attitudes for American students. Furthermore, even though self-stigma experienced by American students had a positive direct effect on intentions to seek counseling for American students, the negative correlations found between these variables indicated the possibility of a suppression effect. The self-stigma variable may be making the other predictors better and is related to self-stigma being related more to error variance in the other predictors than in relation to intentions to seek counseling, explaining for the change in sign. Therefore, this relationship is negligible.

Figure 7. Final Structural Model for American Students



Model for South Asian Students

When the measurement model for South Asian students were examined, the model was an adequate fit to the data ($S-B\chi^2(550) = 878.94$, $CFI = 0.85$, $SRMR = 0.070$, and $RMSEA = 0.044 [0.039- 0.049]$). All factor loadings on indicator variables were significant and ranged from .22 to .76. The standardized parameter estimates and error variance of all parameters from the measurement model were presented in Table 9.

Table 9

Standardized Parameter Estimates of Measurement Model for South Asian Students

Latent and Observed Variables	Factor Loading	Error Variance
Public Stigma		
PS1	.44	.07
PS2	.49	.07
PS3	.68	.05
PS4	.61	.07
PS5	.67	.06
Self-Stigma		
SS1	.68	.05
SS2	.41	.08
SS3	.73	.06
SS4	.16	.09
SS5	.26	.08
SS6	.71	.05
SS7	.40	.08
SS8	.69	.05
SS9	.22	.07
SS10	.46	.06
General help-seeking attitudes		
ATSP2	.66	.09
ATSP4	.44	.09
ATSP8	.48	.08
ATSP9	.46	.08
ATSP10	.53	.07
Active Professional Help-Seeking		
ATSP1	.63	.05
ATSP3	.76	.04
ATSP5	.60	.06
ATSP6	.55	.07
ATSP7	.55	.06

Table 9 Continued

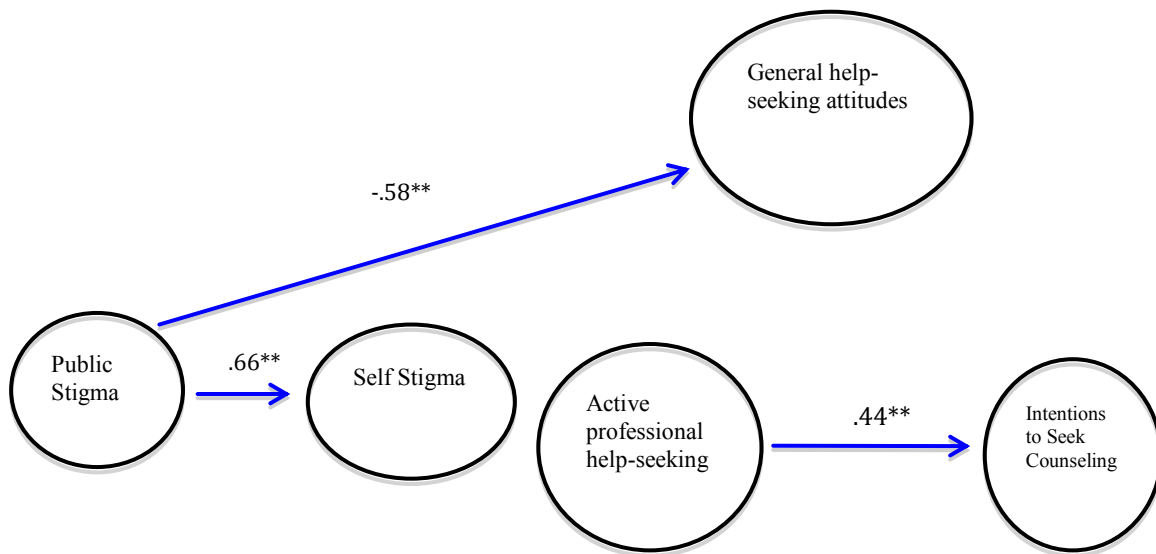
Intentions to Seek Counseling		
INT1	.67	.04
INT2	.49	.06
INT3	.68	.05
INT4	.63	.05
INT5	.47	.06
INT6	.54	.05
INT7	.68	.04
INT8	.60	.05
INT9	.58	.06
INT10	.73	.04

A full structural model was also assessed for South Asian students. In utilizing the same stepwise procedure, the final model for South Asian students was examined to assess how the different factors predicted help-seeking behaviors in South Asian students. Similarly, all possible paths were freely estimated followed by paring down of non-significant paths until it fits as well as the measurement model to assess for a parsimonious model. The final structural model for South Asians was depicted in Figure 8 with the paths and significance of parameters. This model indicated good fit with the data noted by the fit indices ($S-B\chi^2(553) = 880.34$, $CFI = 0.85$, $SRMR = 0.071$, and $RMSEA = 0.044$ [0.038- 0.049]). Furthermore, all paths were significant and the robust chi-square difference test indicated that this final model was not significantly different from the measurement model ($S-B \Delta \chi^2(3) = 2.70$, $p > .05$). This meant that the final structural model fit the data similarly with the measurement model.

For the South Asian students, there were only 3 paths that were significant. These paths included: the path between public stigma and self-stigma, the path between public stigma with general help-seeking attitudes, and the path between active professional help-seeking and intentions to seek counseling. Based on the parameter estimates from these

paths, public stigma contributed to general help-seeking attitudes in South Asian students and also self-stigma that South Asians have towards seeking professional psychological help. Yet, these factors did not contribute to being active in seeking professional help for oneself or one's intention to seek counseling. Only active professional help-seeking contributed to intentions to seek counseling for South Asian students.

Figure 8. Structural Model for South Asians



Model for East Asian Students

For the East Asian students, the measurement model also showed adequate fit indices to the data: $S-B\chi^2(545) = 859.57$; $CFI = .87$; $SRMR = .083$; $RMSEA = .055$ [0.048- 0.062]). The standardized parameter estimates and error variance of all parameters from the measurement model were presented in Table 10. All factor loadings on indicator variables were significant and ranged from .39 to .87.

Table 10

Standardized Parameter Estimates of Measurement Model for East Asian Students

Latent and Observed Variables	Factor Loading	Error Variance
Public Stigma		
PS1	.52	.08
PS2	.65	.06
PS3	.69	.05
PS4	.78	.04
PS5	.76	.05
Negative Feelings of Choice to Seek Professional Help		
SS1	.81	.04
SS3	.87	.03
SS6	.70	.08
SS8	.76	.05
SS10	.39	.07
Perceptions of Unworthiness when asking for help		
SS2	.75	.06
SS4	.51	.09
SS5	.52	.10
SS7	.82	.05
SS9	.63	.06
General help-seeking attitudes		
ATSP2	.64	.07
ATSP8	.64	.07
ATSP9	.63	.06
ATSP10	.64	.07
Active Professional Help-Seeking		
ATSP1	.65	.05
ATSP3	.71	.04
ATSP5	.74	.05
ATSP6	.62	.06
ATSP7	.57	.08
ATSP4	-.46	.09
Intentions to Seek Counseling		
INT1	.77	.04
INT2	.57	.06
INT3	.67	.06
INT4	.67	.05
INT5	.66	.06
INT6	.57	.07
INT7	.72	.04
INT8	.77	.04
INT9	.57	.08
INT10	.74	.05

A full structural model was also assessed for East Asian students. As there were 4 new factors for this model, the same stepwise procedure was used to determine the final model for East Asian students. All possible paths were freely estimated in this model followed by removal of non-significant paths until it fits as well as the measurement model to assess for a parsimonious model. The final structural model with all the significant paths and standardized parameter estimates were presented in Figure 9. The final structural model indicated adequate fit to the S-B χ^2 (551) = 869.65, CFI = 0.86, $SRMR$ = 0.084, and $RMSEA$ = 0.055 [0.048- 0.062]). All paths were significant and the robust chi-square difference test indicated that this final model was not significantly different from the measurement model, indicating that the models fitted the data similarly (S-B $\Delta \chi^2$ (4) = 6.62, p > .05).

For this final model for East Asian students, there were eight significant paths: the path between public stigma and negative feelings of choice to seek professional help, the path between public stigma and active professional help-seeking, the path between public stigma and intentions to seek counseling, the path between perceptions of unworthiness when asking for professional help and general help-seeking attitudes, the path between perceptions of unworthiness when asking for professional help and active professional help-seeking, the path between gratification of choice to seek professional help and general help-seeking attitudes, the path between active professional help-seeking and intentions to seek counseling, and the path between general help-seeking attitudes and intentions to seek counseling.

For help-seeking behaviors of East Asian students, it was noteworthy that public stigma, active professional help-seeking and impersonal attitudes all contributed to one's

intentions to seek counseling. Furthermore, public stigma and perceptions of unworthiness when asking for professional help contributed to an individual actively seeking professional help for oneself when he/she wants or needed. Negative feelings of choice to seek professional help contributed to one's general help-seeking attitudes yet it did not play a role in one's willingness to seek help for oneself. Similarly, general help-seeking attitudes did not contribute to one's active professional help-seeking role. Finally, general help-seeking attitudes did not contribute to one's active professional help-seeking role.

Figure 9. Final Structural model for East Asians

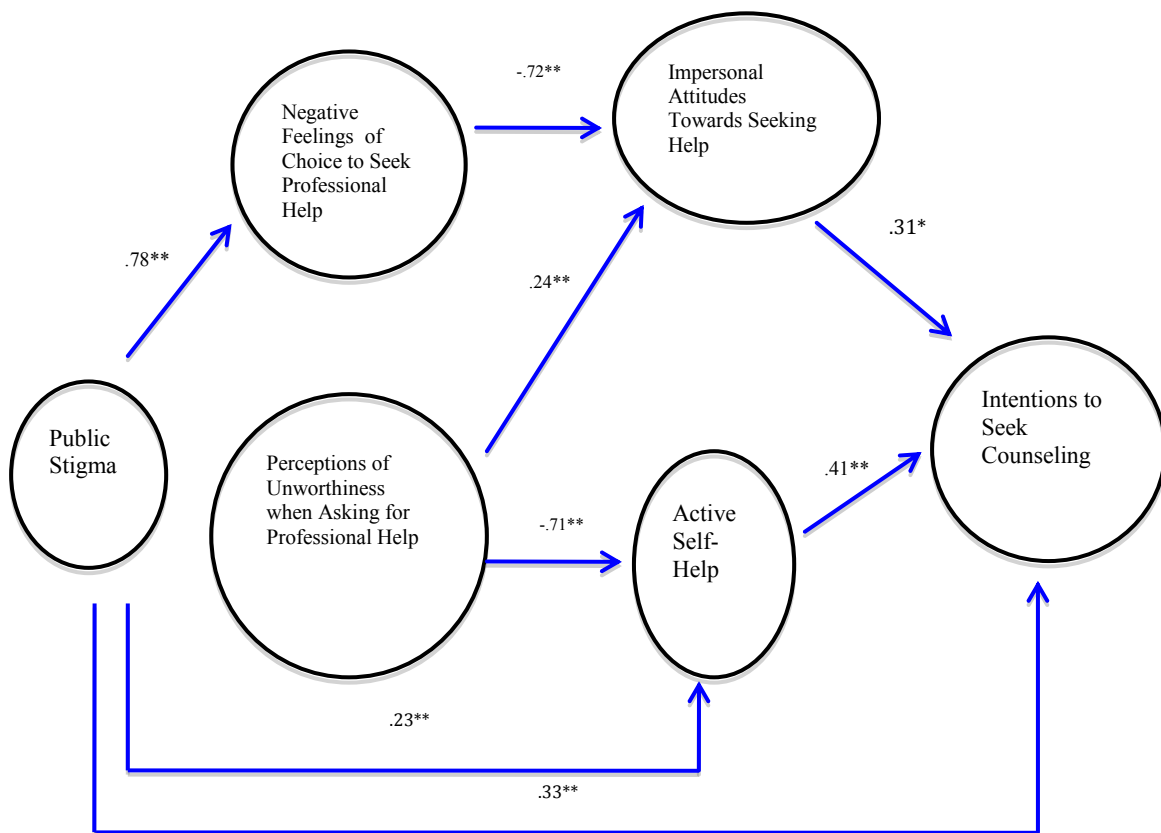


Table 11
Summary of Goodness-of-Fit Indices for CFA Models

Model for Americans	χ^2	<i>df</i>	<i>CFI</i>	<i>SRMR</i>	<i>RMSEA</i>	<i>90% CI</i>
Measurement Model	968.54*	550	.86	.066	.050	(0.045, 0.055)
Final Structural Model	969.27*	553	.86	.049	.049	(0.044, 0.055)
Model for South Asians						
Measurement Model	878.94*	550	.85	.070	.044	(0.039, 0.049)
Final Structural Model	880.34*	553	.85	.071	.044	(0.038, 0.049)
Model East Asian						
Measurement Model	859.57*	545	.866	.083	.055	(0.048, 0.062)
Final Structural Model	869.65*	551	.864	.084	.055	(0.048, 0.062)

Note. CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation; 90% CI: 90% Confidence Interval for RMSEA.

* $p < .01$.

All fit indices for the different models were summarized in Table 11 and all models indicated adequate to good fit. The results for the different populations – American students, South Asian students, and East Asian students represented different processes in seeking professional psychological help. With respect to the different populations examined in this study, examination of the scale structure indicated five factors that were present for Americans and South Asians because of the attitudes towards seeking professional psychological help scale. However, there were six factors that were present for the East Asian population because of the self-stigma and attitudes towards seeking professional psychological help scale.

Further exploration of the help-seeking models in each population showed a very different process in how factors contributed to the intentions to seek professional counseling for psychological and personal concerns. Some of the similarities across all

three populations included how active professional help-seeking contributed to intentions to seek counseling. Both American and South Asian students also had similar factors in their help-seeking model, and that public stigma contributed to self-stigma for seeking professional psychological help, as well as general help-seeking attitudes.

However, even though both American and South Asians had the same number of factors present, there were seven significant paths for Americans and only three for South Asians. The stigma variables did not contribute to active professional help-seeking or intentions to seek counseling for South Asians. Yet, the self-stigma factor contributed to general help-seeking attitudes, active professional help-seeking and intentions to seek counseling for American students. Additionally, for the six-factor model for East Asians, there were eight significant paths, of which three paths were from public stigma.

Compared to Americans, public stigma played a more salient role in predicting help-seeking model for East Asians. Public stigma contributed to active professional help-seeking, intentions to seek counseling, and negative feelings of choice to seek professional help. Perceptions of unworthiness when asking for professional help contributed to both impersonal attitudes and active professional help-seeking for East Asian students, however negative feelings of choice to seek professional help contributed to general help-seeking attitudes in East Asians but it does not contribute one's willingness to actively seek help. In examining the intentions to seek counseling for all three groups, both self-stigma and active professional help-seeking contributed to intentions to seek counseling for American students, whereas, only active professional help-seeking contributed to intentions to seek counseling for South Asians, and general help-seeking attitudes, active professional help-seeking and public stigma all contributed

to intentions to seek counseling for East Asians. Thus, the different groups had a different perspective on how the stigma variables interplay and predicted attitudes and intentions to seek counseling.

CHAPTER 5

DISCUSSION

SUMMARY OF THE STUDY

Help-seeking behaviors of individuals seeking psychological help had often been an interest of many researchers. In fact, many researchers had examined the relationships with different predictors and different populations in previous studies (Cramer, 1999; Vogel & Wester, 2003; Komiya et al., 2000; Vogel et al., 2005; Shaffer et al., 2006; Vogel et al., 2007; Eisenberg et al., 2009; Nam et al. 2013). In the current study, I expanded on Vogel's (2007) help-seeking model by applying his model to Asian international students and American students. Built from the framework of theory of reasoned action, which emphasized how intentions stem from one's attitude towards one's behavior, and attitudes result from beliefs, Vogel (2007) posited that perceptions of public stigma contributed to experiences of self-stigma, which influenced help-seeking attitudes and also intentions to seek counseling. Similarly, I assessed the applicability of his model and examined the relations of public stigma, self-stigma, attitudes towards seeking professional psychological help in predicting intentions to seek professional counseling for American, South Asian and East Asian students using structural equation modeling.

My original hypotheses were related to determining how different types of stigma, self-disclosure, and attitudes towards seeking professional psychological help are related to help-seeking intentions of American students and Asian international students in a comparison model. Initial research questions included how the different variables would be different between the two groups. I had hypothesized that self-stigma and public

stigma would be higher for Asian international students as compared to American students. Asian international students were also hypothesized to have less favorable attitudes and intentions towards seeking professional psychological help, and lesser self-disclosure compared to American students. Consequently, I had hypothesized how the pathways with the aforementioned variables in the same model would work differently for Asian international students and American students. Mitchell, Greenwood, and Guglielmi (2007) had noted how international students tended to have higher risk factors, and would utilize crisis services more because they were less likely to seek services until their distress and impairment is significant. Also, there might be cultural mistrust and international students may perceive their problems as academic versus personal and may try to resolve problems by themselves instead of seeking professional psychological help.

However, after I had completed my data collection process, I noted that majority of the international students were from South Asia and East Asian regions compared to other regions of the world. As there may be within-group differences found in help-seeking behaviors for these samples, Asian international students were further split into South Asians ($N = 308$) and East Asians ($N = 190$). The South Asian students in the sample were all from India. Gupta (2010) stated how the Indian culture had different systems of healthcare with Ayurveda, Unani, and Sidha, along with mainstream medicine. Furthermore, the Hindu view of causation of adversity, karma, may more culture-specific to these students. The heavy influence of religion, cultural beliefs, and traditions may influence South Asians in how they perceive seeking professional psychological help in a very different way from East Asians, yet previous studies had often categorized all Asian international students into a similar group.

Moreover, when examining the measures for the groups, I did not expect the self-stigma measure and attitudes towards seeking professional psychological help-short measure to indicate a two-dimensional structure for the different groups. This indicated that the groups understood the items differently. Consequently, the original hypotheses using a multi-group comparison could not be conducted because the scales were measuring different variables.

Owing to the complexity of the models for the different populations, self-disclosure variable was also removed. It was important to examine Vogel's (2007) preliminary model with these different constructs on the various population before expanding his model with the self-disclosure variable. Furthermore, with the additional factors that had emerged in this process for the different population, the issue of power was also a concern. Hence, self-disclosure variable was excluded from the analysis and I could not examine what I had initially proposed. Instead, after the factor structures of the measures were evaluated and constructs were deduced for each group, I derived different models for each culture. For this reason, the comparisons of the models altered from being very specific in my original hypotheses to being general in my final results.

CONSTRUCTS FOR GROUPS

In an effort to afford applicability of the measures to the different groups, exploratory factor analysis was conducted to assess for dimensionality of constructs. I investigated the separate structures for the constructs of public stigma, self-stigma, attitudes towards seeking professional help, and intentions to seek professional counseling in each sample and discussed the dimensionality of the scales in this section.

The exploratory factor analyses performed on the responses for public stigma from the American, South Asian, and East Asian samples revealed a similar unidimensional structure. These results illustrated that public stigma might be understood in the same way for the different samples. As compared to the public stigma variable, group differences were found in the self-stigma variable.

Exploratory factor analyses results indicated a similar unidimensional factor structure for Americans and South Asians, but a two-dimensional construct for East Asians. The original self-stigma measure (Vogel et al., 2006) indicated a unidimensional factor structure and that the relationship of reverse-coded items and the non-reversed coded items were extremely high, although it was predominantly Caucasian participants who were used to assess the psychometric properties of the scale. In particular, the scale used in the current study was a revised instrument (Vogel et al., 2013) in which cross-cultural validity was established in England, Greece, Israel, Taiwan, Turkey, and the U.S. and a univariate structure was found. In fact, for the study conducted in these countries, the scale was translated into the native language of each country and back-translated. On the contrary, the one-factor solution was not retained for self-stigma of East Asians in the current study. By utilizing promax rotation, a 2-factor structure for the self-stigma construct was found. Furthermore, the magnitude ($r = .01$) of the factor correlation was negligible, which implied that East Asians perceive items on this measure as two separate, independent constructs. This different way of responding when compared to Americans or South Asians could be related to cultural differences.

In examining the factor loadings of self-stigma items for East Asians examined in this study, I derived two themes for the separate constructs. One of the factors was

labeled as experiencing negative feelings in choice to seek professional help, this factor was dependent on feelings of satisfaction in their decision making to seek professional counseling instead of using their ability of problem-solving without professionals. The other factor was labeled as perceptions of unworthiness when asking for professional help, and this relied on reflection of their self-esteem or self-confidence when asking for professional help. East Asian international students might perceive these themes as distinct because expression of their feelings may be seen as separate from self.

Additionally, potential interpretations on how dimensionality for the self-stigma measure might differ for East Asians could be specific to the sample in this study. Previously, Vogel et al. (2013) had established cross-cultural validity and demonstrated a unidimensional structure of this measure in Taiwanese student who are East Asians. However, in the current study, even though Taiwanese international students were included in the East Asian sample, international students from China, South Korea, Japan, Hong Kong and Macau were also included in this sample, with the majority of the students from China. This implied within differences of culture in similar regions, and that East Asian students from China and other regions in East Asia might have a different way of responding to these items.

Another measure that indicated two-dimensional constructs across all three samples was the attitudes towards seeking professional psychological help-short measure (*ATTSPH-S*; Fischer & Farina, 1995) used in this study. This was a revised scale from the original 29 item scale (Fischer & Turner, 1970) which had four factors – recognition of need for psychotherapeutic help, stigma tolerance, interpersonal openness, and confidence in mental health practitioner. However, in the revised version of this scale,

items were slightly modified from the recognition of need for psychotherapeutic help and the confidence in mental health practitioner subscales, and the psychometric properties indicated a unidimensional structure (Fischer & Turner, 1970). In the current study, the exploratory factor analyses performed on the responses from the American and South Asian samples revealed a similar two factor structure: active professional help-seeking and general help-seeking attitudes. For the factor active professional help-seeking, it implied that the individual is more action-oriented, and proactively seeking professional psychological help especially when one is in distress or is experiencing a crisis situation. On the other hand, the factor for general help-seeking attitudes represented a general opinion of an idea or hypothetical situation in seeking professional help and perspectives on how a person could behave. However, because of the negligible relationship between the two factors for South Asians, there was discrepancy between how South Asians and Americans perceived one's opinion in seeking professional help versus being proactive in seeking professional help. This meant that South Asians might have the opinion that professional counseling is good to find relief, yet this opinion is not related to whether they will actively seek help for themselves if they need or want. Hence, there is incongruency between opinions and behaviors in seeking professional help for South Asians. On the contrary, if an American student had a more positive attitude towards general help-seeking attitudes, the greater likelihood they are to engage in active professional help-seeking.

Similarly, the exploratory factor analysis performed on the responses from the East Asian sample revealed a two-factor structure. Most of the items loaded in a similar way as the constructs for Americans and South Asians except for one item, which loaded

under the active professional help-seeking factor. This may be due to the valuing of independence to cope with problems without professional help for East Asians. Vogel et al. (2006) noted how seeking psychological help might be perceived as an individual weakness. Yet, the impersonal attitude towards seeking help was negatively related to active professional help-seeking. These results supported how East Asian students might have negative opinions of seeking help in a hypothetical situation, yet would seek professional help actively when needed or wanted. A possible explanation could be that East Asian international students in the U.S. might not have their usual supports, network or resources from their home country that they could usually turn to. Therefore, they would engage in active professional help-seeking despite having negative general help-seeking attitudes. Thus, the relationships between these different variables and the cultural implications for the different populations should not be overlooked.

Lastly, exploratory factor analyses performed on the responses for intentions to seek professional counseling from the American, South Asian, and East Asian samples revealed a similar one-factor structure. These results supported how intentions to seek counseling for psychological and interpersonal concerns might be understood in the same way for the different samples.

Based on the findings in dimensionality of the measures for the different samples, different constructs were found. The self-stigma factor was applicable to Americans and South Asians, however, it was modified into two separate constructs for East Asians. These two constructs were negative feelings of choice to seek professional help and perceptions of unworthiness when asking for professional help. For the attitudes towards professional counseling factor, based on the factor loadings of exploratory factor

analyses, it was altered into two separate constructs: general help-seeking attitudes and active professional help-seeking across all three samples. Public stigma and intentions to seek professional counseling remained as a single construct for all three samples. In summary, five factors were presented for Americans and South Asians in the models, and six factors were obtained for the East Asians in their respective models.

MODELS FOR GROUPS

This section described the relations among the constructs found for the different samples and their respective models. The final models for each population indicated different pathways among the help seeking factors.

For the American model, most of the paths were significant and consistent with the original model (Vogel et al., 2007). Both public stigma and self-stigma contributed to general help-seeking attitudes, but only self-stigma and not public stigma contributed to active professional help-seeking. Active professional help-seeking depended on the willingness of taking initiative to get professional help especially in challenging situations, and generally tended to be more of a personal choice, thus the perception of self-stigma was more of a determining factor for American's active professional help-seeking. Also, active professional help-seeking had a direct effect on intentions to seek counseling for personal or psychological problems. A possible explanation could be that for Americans who were more proactive and willing to seek out professional help, they were likely to seek out counseling services. In contrast, there was no direct effect of general help-seeking attitudes, which implied that Americans' general opinion of seeking professional psychological help did not predict intentions to seek counseling. Results highlighted the importance of active professional help-seeking in predicting intentions to

seek counseling for Americans, that regardless of their impersonal attitudes toward seeking help, the intention to seek counseling occurred only when they were faced with challenging events and were proactive in getting help for themselves. Although a positive relationship was found in the direct effect of self-stigma on intentions to seek counseling, the correlations indicated a negative relationship between these variables for American students. This change in sign is due to self-stigma being related more to the error variance in the other predictors than in relation to intentions to seek counseling. The self-stigma variable is making the other predictors better and this is suppression effect. As a result, this may be an artifactual result and the relationship is negligible.

For the South Asian model, the process for seeking professional help was very different compared to the other groups. Public stigma had a direct effect on self-stigma, yet both stigma variables had no direct effect on active professional help-seeking or intentions to seek help. This implies that Vogel's (2007) model primarily built on a European American sample may not be applicable to South Asians. Additionally, greater public stigma predicted more negative general help-seeking attitudes. For South Asians, perceptions held by their group or society had contributed to their self-stigma and impersonal attitudes. This supported the perceptions of a collective worldview and saliency of coming from a collectivistic culture. Yet, these factors on stigma or impersonal attitudes of beliefs about seeking help do not affect intentions to seek counseling. Consequently, the theory of reasoned action (Fishbein & Ajzen, 2010) which emphasized on beliefs and attitudes leading to intentions might apply differently for South Asian international students in the U.S. The only factor that had a direct effect on intentions to seek counseling was active professional help-seeking, which indicated that if

South Asians were in a crisis situation and were proactive in getting the professional help they needed, they would have increased intentions to seek out professional counseling. Gupta (2010) noted that compared to physical symptoms, psychological symptoms tended to be less salient in Asian Indian culture because of perceptions of weakness. There was also the likelihood to attribute symptoms to cultural beliefs such as imbalances of vital humors. Hence, South Asians may view seeing a professional counselor akin to seeing a medical doctor for physical management of symptoms, and only when needed. Thus, intentions to seek professional counseling were only predicted by active professional help-seeking.

Results indicate the practicality of South Asians towards help-seeking because they will only tap into resources when needed regardless of stigma they may experience or attitudes they hold. This may be important to note as previous researchers had reported how ethnic identity of South Asians was a strong predictor of negative attitudes towards help-seeking, with greater adherence to traditional Asian values being negatively associated with attitudes towards seeking psychological help, because of the likelihood of stigma and shame with psychological disorders and professional help-seeking (Soorkia, Snelgar, & Swami, 2011). Yet, results from the current study showed that despite South Asians' students' attitude towards stigma or help-seeking, it will not deter them from utilizing professional psychological help especially when needed.

For the East Asian model, public stigma contributed to their negative feelings of their choices to seek professional counseling, which led to increased negative general help-seeking attitudes, and contributed to intentions to seek professional counseling for psychological or personal problems. It was important and hopeful to note that public

stigma did not contribute to perceptions of unworthiness when asking for professional help for East Asian students. Even though public stigma of seeking help may generate discomfort for East Asians to seek professional help, yet they will not blame themselves or hold negative core beliefs if they do. In fact, Tang, Reilly, and Dickson (2012) noted that Chinese students (including Chinese students from China) did not experience greater stigma towards seeking professional help as compared to Western people in the UK because of the possibility of growing awareness of mental disorders in the home country. Therefore, these perceptions of negative feelings may be easier to target and alter in outreach program and psycho education, compared to beliefs they inherently believe.

Also, it was interesting to note that perceptions of unworthiness predicted general help-seeking attitudes. This implies that there is a double standard for East Asians, in that they may perceive negative self-worth in getting help for themselves but advocate a positive attitude towards others getting psychological help. This illustrates cultural implications wherein most East Asians may feel self-reliant or have others to talk to, thus feeling that they may not need professional counseling but will encourage others to get the support of psychological professionals because of how they value expertise from these professionals. On the other hand, they may not feel comfortable in getting these supports themselves. This may be due to discomfort in disclosing emotional vulnerabilities and difficulties to a professional. For some East Asian countries, contributory factor such as heavy investment of financial resources and the one child policy may have contributed to the difficulty in being interpersonally open especially when trying to manage emotional challenges (Tang, Reilly, & Dickson, 2012).

Additionally, increased feelings of unworthiness of experiences in asking for professional help for East Asians, the less likely they are to engage in active professional help-seeking for East Asians, and to eventually have the intentions to seek counseling. Public stigma also had a direct effect on active professional help-seeking and intentions to seek counseling for East Asians. When East Asians perceive more public stigma from others' with seeking professional help, they are more likely to engage in active professional help-seeking behavior and are more willing to seek counseling for psychological and personal problems. Part of this reason could be the respect of privacy because of the confidential nature of counseling, which allows East Asians to feel safe in self-disclosing and engage in psychological help especially when they are undergoing challenging situations. East Asian students may feel that they are not "airing their dirty linens" in public and it may also be face-saving and a reprieve to express themselves to a professional who may be outside of their network.

The help-seeking model for Americans, South Asians and East Asians showed different processes in how the different factors predicted one's intentions to seek professional counseling for psychological and personal concerns. Both Americans and South Asians had the same factors in their models, however, the pathways for predicting intentions to seek counseling were different for both groups. In fact, Vogel's (2007) model may not be applicable on South Asians, as stigma does not seem to translate to intention outcomes. As for the East Asians, there was no self-stigma variable present. This factor was perceived differently in this group and two factors were derived in the process, explaining for the six factors present in the East Asian model. Compared to South Asians, East Asians had stigma variable that translated to intentions to seek

counseling, and this model was more similar to the American model. For previous studies, the attitudes towards seeking professional psychological help variable was often utilized as a unidimensional construct, yet upon examining the psychometric properties of the measure in the current study, two factors were derived and they were applicable to all three populations.

CLINICAL IMPLICATIONS

There are many clinical implications from these results. First, active professional help-seeking, a key variable for Americans, South Asians and East Asians, had a positive direct effect on intentions to seek counseling and was a key contributing factor. This factor was defined as taking the initiative to get professional help when needed or wanted, especially when experiencing high levels of distress. This highlights the importance of website information, outreach activities, and marketing strategies to disseminate information on availability of services. Part of this process is to convey the message of availability of resources that students can choose to connect to when they are in crisis, such as availability of crisis calls after hours, brief sessions for consultations, walk-in services with the counseling center on campus. Furthermore, it may be helpful to create awareness about what students typically come into counseling for and provide a range of clinical issues from mild to moderate to normalize their willingness to engage in active professional help-seeking behavior. This is likely to reinforce the active professional help-seeking behavior and increase the possibility of students seeking professional psychological help despite stigma or attitudes they may have. As the only factor that predicted intentions to seek counseling for South Asian students, one of the largest and growing international students population in the U.S., it will be essential to

emphasize these services. Perhaps, conducting presentations with South Asian student organizations or providing this information where more South Asian students gather could potentially help to increase the intentions to seek counseling for these students.

Second, public stigma played an integral role in help-seeking attitudes and intentions to seek professional counseling for the different groups. Public stigma had a direct effect for self-stigma and general help-seeking attitudes for both Americans and South Asians, indicating the importance of how stigma perception from others lead to increased self-stigma and negative general help-seeking attitudes. For Americans, this factor had an indirect effect in predicting intentions to seek professional counseling. Furthermore, for East Asians, public stigma also had a direct effect on negative feelings of choice to seek professional help. As a result, interventions to challenge stereotypes on public stigma, help-seeking attitudes and intentions may be beneficial for students. Apart from conducting workshops and outreach activities to reach student organizations, having a curriculum on mental health and well-being in freshman introductory classes or an online mandatory curriculum could be advantageous. These curriculums could normalize expectations and assist students in understanding how common it can be to engage in therapy, and emphasize time-limited sessions to de-stigmatize counseling. Furthermore, counseling services can be portrayed as strength-based rather than deficit-based behaviors. This could alter students' attitudes towards seeking help or negative feeling of choice to speak to professional counselors.

In more recent years, campaigns with student advocates such as End the Stigma photo series, which stemmed from the program "All of us: A campaign to rethink mental health" had been carried out by the University of California, Los Angeles (UCLA) to

battle against negative comments and provide support in seeking help (Heffernan, 2015). Another online program derived from this program is the Upstander action card which is a pledge taken to help others connect to resources on campus instead of being a bystander (“All of Us”, 2015). Hence, promoting more campaigns and advocacy led by students or organizations is likely to decrease public stigma.

On the other hand, for East Asians, public stigma had a direct positive effect in predicting intentions to seek counseling. A possible reason could be the confidential nature of counseling makes it safe to disclose despite experiencing public stigma. Consequently, emphasis on confidentiality, particularly for East Asians, is likely to lead to increase intentions to seek professional counseling. In contrast, East Asians may not be as open to group therapy or group therapy may be less effective for this population because negative feelings can be induced by choice to seek professional help. In a study on international student support groups, group members who attended group were concerned of potential stigma and what others thought (Page, 2014). Wade et al. (2011) noted how stigmatizing nature could affect the perception of group or individual counseling. Furthermore, confidentiality is not as guaranteed because it depends on group members involved.

Lastly, East Asians perceptions of unworthiness when asking for professional help predicted active professional help-seeking and general help-seeking attitudes, which in turn led to intentions to seek professional counseling. Hence, perceptions of unworthiness are likely to inhibit active professional help-seeking for East Asian and may lead to issues in therapy or resistance in session. These feelings of unworthiness experienced by East Asians for asking for professional help may bring about feelings of

guilt for attending therapy, and it may be counterintuitive or impede progress if these feelings are not addressed. Therefore, it will be beneficial for clinicians to be mindful and sensitive to how these perceptions of unworthiness when asking for help could affect the counseling alliance and be a barrier in therapy. Additionally, it may be helpful to process or normalize such feelings in session, and explore the idea of why it is more acceptable for others to seek counseling in a culturally sensitive way. As this was a salient variable that was only applicable to East Asians, it will be important for clinicians to be aware of how this factor is applicable for East Asian clients whom they work with.

LIMITATIONS

There are also several limitations in this study. This sample comprises of Southwestern college students in a public university and generalizability of the results could be limited to these students in the United States. Hence, replicating this study outside of the college setting may yield different results. For instance apart from college student, exploring how these factors impact individuals in the working force, retired individuals and individuals with different socio-economic status may help to have an increased understanding of help-seeking intentions. Furthermore, there is a counseling center available for student access on campus and advertisement of services are often provided, hence, help-seeking attitudes and accessibility to counseling resources may be different as compared to non-college population who have to take more initiative to research or gain access to such resources in the community.

Moreover, this was a cross-sectional study and biases in estimates from cross-sectional analyses are likely because of overestimation or underestimation of longitudinal effects. This bias can be substantial and affects cross-sectional estimates of direct effect,

indirect effect and total effect. Additionally, cross-sectional analysis does not have the ability to model ongoing stable relations between measures overtime (Maxwell & Cole, 2007). Thus, even when a satisfying model fit may hint at causal explanations, multiple waves of data should be obtained to explain causal relationships through longitudinal designs or experimental designs.

Another limitation is how the East Asian group was grouped for this study. The East Asian sample consisted of students from China, South Korea, Japan, Taiwan, Hong Kong, and Macau. This negates the cultural differences and within-group differences found in these countries and can confound the findings. As an illustration, the help-seeking process for Japanese students may be different from Taiwanese or Chinese students. On the other hand, South Asian students in this study were all from India and American students were all from America.

In addition, there may also be sampling issues with the South Asian group. A point to note is that most of the South Asians were graduate students enrolled in engineering programs. Therefore, there may be a pattern of help-seeking attitudes distinct for students in this major who may often engage in problem-solving behaviors. This may explain why active professional help-seeking was the only factor that had a direct relationship to intentions to seek counseling.

Lastly, participants were provided different incentives with either extra course credit or being able to participate in a lottery to win a gift certificate. This lack of administration standardization and different data collection methods could influence the results.

FUTURE DIRECTIONS

Based on the results from this study, there are several recommendations for future research. These recommendations are two-fold: measurement issues with scales and relationships of my variables for the respective models. First, the self-stigma scale and the attitudes towards seeking professional help-short scale indicated different dimensionality in this study. Hence, it would be important to further assess the psychometric properties of these scales and generalizability to different cultures.

Many studies had utilized the attitudes towards seeking professional help-short scale as a unidimensional structure; yet, limited studies had explored the factor structure for different populations. Therefore, it would be important to further explore the factor structure of general help-seeking attitudes and active professional help-seeking factor deduced from this study and applicability to examine populations.

For the self-stigma scale, cross-cultural validity was established (Vogel et al., 2013), yet, for this particular study, East Asian students had a different way of interpreting the items compared to the other population. Since majority of the East Asian participants are from China, and to my knowledge, I believe this measure had yet to be tested out on Chinese international students from China, it would be valuable to examine how Chinese students may understand this measure. Furthermore, by replicating this scale on different East Asian populations, factor structures and interpretations of the factors can be deduced by participants from different East Asian countries to assess for validity of the negative feeling of choice to seek professional help and the perception of unworthiness when asking for professional help construct.

Second, future directions for the variables and models from a research perspective can involve examining how these factors are replicable to different populations such as members in the community and with students from various regions. More specifically, how public stigma and perceptions of unworthiness when asking for professional help will contribute to intentions to seek professional counseling in the same way for students from different countries in East Asia regions respectively, China, South Korea, Japan, Taiwan, Hong Kong and Macau. This will help assess possible within-group differences for help-seeking attitudes and intentions. Additionally, replicating this study on South Asian students who are in the social science field instead of engineering may help to validate this model for South Asians.

Furthermore, assessing for acculturation and enculturation for East Asian and South Asian international students in the U.S. will be important considerations for future studies. For Asian students, acculturation, enculturation, and values have been found to influence their view of therapy and help-seeking behaviors (Liao et al., 2005; Yuknina & Weigold, 2011; Choi & Miller, 2014). Examining how these variables could contribute to public stigma, self-stigma, active professional help-seeking or impersonal attitudes towards counseling could enhance the model for future research.

Lastly, exploring differential help-seeking sources apart from seeking professional counseling could further explain how these factors influence help-seeking behaviors for different cultures. For example, having different alternative therapies, support networks, or religious organizations as means to get help instead of utilizing professional counseling services may be seen as more acceptable (Gupta, 2010; Chen & Lewis, 2011). Thus, assessing how stigma variables or active professional help-seeking

and impersonal attitudes towards help-seeking, and how they contribute to these different sources could provide a more in-depth picture of help-seeking patterns among different cultures.

CONCLUSION

Even though there are limitations to this study, I extended on the help-seeking literature by using the theory of reasoned action and expanded on a previous help-seeking model with new factors and different populations. I highlighted unique processes of psychological help-seeking intentions for Americans, South Asian international students, and East Asian international students respectively. Previous researchers had often categorized Asian international students together when examining help-seeking attitudes, but I found that South Asians had a very different perspective for help-seeking intentions. I also discovered how different populations comprehend the same measure differently, more specifically, how self-stigma and attitudes towards seeking professional psychological help were interpreted. Having an understanding of pathways and contributing factors that lead to intentions to seek counseling will allow practitioners, researchers, and administrators to better help students to get connected to the supports and resources they need.

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APPENDIX A
SURVEY

Attitudes on Resource Use on Campus

1. Gender: Male Female Other, specify: _____
2. Age: _____
3. You are a citizen of:
- | | | | |
|---|--------------------------------------|-----------------------------------|--|
| <input type="checkbox"/> United States of America | <input type="checkbox"/> South Korea | <input type="checkbox"/> Taiwan | <input type="checkbox"/> Indonesia |
| <input type="checkbox"/> China | <input type="checkbox"/> India | <input type="checkbox"/> Vietnam | <input type="checkbox"/> Other, specify: _____ |
| <input type="checkbox"/> Mexico | <input type="checkbox"/> Japan | <input type="checkbox"/> Thailand | |
4. From the list below, please choose which best describes your race/ethnicity:
- | | |
|---|---|
| <input type="checkbox"/> Caucasian or White | <input type="checkbox"/> African-American or Black |
| <input type="checkbox"/> Asian | <input type="checkbox"/> Asian-American or Pacific Islander |
| <input type="checkbox"/> Hispanic/ Latino | <input type="checkbox"/> Mixed Race |
| <input type="checkbox"/> Native-American or American Indian | <input type="checkbox"/> Other, specify: _____ |
5. What degree are you currently pursuing? Bachelor Master Doctoral Postdoctoral
- Other (Please specify:) _____
6. What year are you in your program or major: Year 1 Year 2 Year 3 Year 4 Year 5 or above
7. How do you identify your sexual orientation?
- Heterosexual Gay/ Lesbian Bisexual Questioning Transgender Other, specify: _____
8. What is your current declared degree/program?
- | | | |
|---|-------------------------------------|--|
| <input type="checkbox"/> Nursing and Health | <input type="checkbox"/> Business | <input type="checkbox"/> Computing/ Technology |
| <input type="checkbox"/> Engineering | <input type="checkbox"/> Arts | <input type="checkbox"/> Communications |
| <input type="checkbox"/> Social Science | <input type="checkbox"/> Education | <input type="checkbox"/> Undeclared |
| <input type="checkbox"/> Law | <input type="checkbox"/> Accounting | <input type="checkbox"/> Other, specify: _____ |
9. Cumulative G.P.A: _____ and No. of semesters enrolled: _____
10. Name of school or institution at which you are currently enrolled in: _____
11. Employed: Full Time Part Time Not employed
12. Are you currently living in the school dormitory? Yes No
If yes, how many roommates? _____
13. Have you ever sought professional counseling services on campus or elsewhere? Yes No
If yes, i) what was it for? _____

ii) when did it occur? _____
iii) how long did it last? _____

14. Have any of your family, friends, or significant others sought professional counseling services?

Yes No

15. Generation status (please check the most applicable one):

- | | |
|--|--|
| <input type="checkbox"/> I was born in the U.S., but my parents immigrated to the U.S. | <input type="checkbox"/> One parent and I were born in the U.S. (Other parent immigrated to the U.S.) |
| <input type="checkbox"/> I am a refugee to the U.S. | <input type="checkbox"/> Both of my parents and I were born in the U.S., but my grandparents immigrated. |
| <input type="checkbox"/> I am an adoptee and came to the U.S. | <input type="checkbox"/> Grandparents, parents, and I were born in the U.S. |
| <input type="checkbox"/> I am an immigrant to the U.S. | <input type="checkbox"/> Great grandparents, grandparents, parents, and I were born in the U.S. |
| <input type="checkbox"/> Not applicable | <input type="checkbox"/> Other (specify) _____ |

16. Rate your awareness of professional counseling services on campus?

1(very aware) 2 3 4 5 (not aware at all)

17. Are you an international student? Yes No

If you are an international student, how long have you been in the United States?
____years ____months

18. Primary language spoken: _____

If English is not your first language, what is your first language? _____

Instructions: Please rate the following statements in terms of the extent you disagree or agree with each one. Please click the number that best reflects your answer to each statement.

	Strongly disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly agree
1. I would feel inadequate if I went to a professional counselor for professional counseling.	1	2	3	4	5
2. My self-confidence would NOT be threatened if I sought professional counseling.	1	2	3	4	5
3. Seeking professional counseling would make me feel less intelligent.	1	2	3	4	5
4. My self-esteem would increase if I talked to a professional counselor.	1	2	3	4	5
5. My view of myself would not change just because I made the choice to see a professional counselor.	1	2	3	4	5
6. It would make me feel inferior to ask a professional counselor for help.	1	2	3	4	5
7. I would feel okay about myself if I	1	2	3	4	5

made the choice to seek professional counseling.

8. If I went to a professional counselor, I would be less satisfied with myself.	1	2	3	4	5
9. My self-confidence would remain the same if I sought professional counseling for a problem I could not solve.	1	2	3	4	5
10. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

Instructions: Using the scale below, indicate your level of agreement with each of the following statements. Please click on the number that best reflects your response to each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
1. People tend to like those who are receiving professional counseling less than those who are not.	1	2	3	4
2. It is advisable for a person to hide from people that he/she has seen a professional counselor.	1	2	3	4
3. People will see a person in a less favorable way if they come to know that he/she has seen a	1	2	3	4

professional counselor.

- | | | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 4. It is a sign of personal weakness or inadequacy to see a professional counselor for emotional or interpersonal problems. | | | | |
| | 1 | 2 | 3 | 4 |
| 5. Seeing a professional counselor for emotional or interpersonal problems carries social stigma. | | | | |
-

Instructions: Using the scale below, indicate your level of agreement with each of the following statements. Please click on the number that best reflects your response to each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.				
2. The idea of talking about problems with a professional counselor strikes me as a poor way to get rid of emotional conflicts.	1	2	3	4
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in professional counseling.	1	2	3	4
4. There is something admirable in the attitude				

of a person who is willing to cope with his or her conflicts without resorting to professional counseling.	1	2	3	4
5. I would want to get professional counseling help if I were worried or upset for a long period of time.	1	2	3	4
6. I might want to have professional counseling in the future.	1	2	3	4
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional counseling.	1	2	3	4
8. Considering the time and expense involved in professional counseling, it would have doubtful value for a person like me.	1	2	3	4
9. A person should work out his or her own problems; getting professional counseling would be a last resort.	1	2	3	4
10. Personal and emotional troubles, like many things, tend to work out by themselves.	1	2	3	4

Instructions: Below is a list of issues people commonly bring to professional counseling. How likely would you be seeking professional counseling if you were experiencing these problems hypothetically? You may not be experiencing these issues now. Please click on the number that best reflects your response.

	Very Unlikely	Unlikely	Likely	Very Likely
1. Weight control	1	2	3	4
2. Excessive alcohol use	1	2	3	4
3. Relationship difficulties	1	2	3	4
4. Concerns about sexuality	1	2	3	4
5. Depression	1	2	3	4
6. Conflicts with parents	1	2	3	4
7. Speech anxiety	1	2	3	4
8. Difficulties dating	1	2	3	4
9. Choosing a major	1	2	3	4
10. Difficulty sleeping	1	2	3	4
11. Drug problems	1	2	3	4
12. Inferiority feelings	1	2	3	4
13. Test anxiety	1	2	3	4
14. Difficulties with friends	1	2	3	4
15. Academic work procrastination	1	2	3	4
16. Self-understanding	1	2	3	4
17. Loneliness	1	2	3	4
18. Other:	1	2	3	4

APPENDIX B
LETTER OF CONSENT

ONLINE COVER LETTER

Dear Participant,

Thank you for your interest in participating in this study. I am a graduate student who is working under the direction of Dr. Terence Tracey, a professor from the Counseling and Counseling Psychology program in the School of Letters and Sciences at Arizona State University.

I am conducting a research study to examine college students' attitudes and willingness to utilize resources on campus. I am inviting your participation, which will involve filling out an anonymous survey. The survey will take approximately 20-30 minutes to complete. In order to participate, you must be 18 or older. NO identifying information will be required and all responses will be anonymous. Your participation in this study is voluntary, and you can skip items or withdraw from the study by exiting the survey at any time with no penalty.

Your participation will provide valuable information that may help university administrators and professionals to provide better services for students. Upon completing the survey, you will be invited to provide your email address for getting extra credit (only if approved by your professor) or entered into a drawing for one of eight US\$25 gift certificates. You may decline the invitation by not providing your email address. Eight random drawings will be made at the end of the study, and winners will be notified by email. Your email will NOT be linked to your response in the survey.

The results of this study may be used in reports, presentations, or publications and used only in the aggregative form for analysis. Completion of the survey will be considered your consent to participate in the study.

If you have any questions concerning the research study, please contact Dr. Terence Tracey at Terence.Tracey@asu.edu or Stephanie Chong at sschong@asu.edu. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at 480-965-6788. Thank you for your participation.

Sincerely,

Stephanie Shiqin Chong, M.C.

APPENDIX C
IRB APPROVAL

To: Terence Tracey
EDB

From: Mark Roosa, Chair
Soc Beh IRB

Date: 06/27/2013

Committee Action: **Exemption Granted**

IRB Action Date: 06/27/2013

IRB Protocol #: 1305009214A001

Study Title: Help-Seeking for International and American Students

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.